Lecture - 21

ESD for Sustainable Healthcare (Contd.)

Welcome viewers welcome back to this course on ESD, ESD for Sustainable Healthcare. So, continue with that health care facilities and sustainable health now we will proceed for further things.

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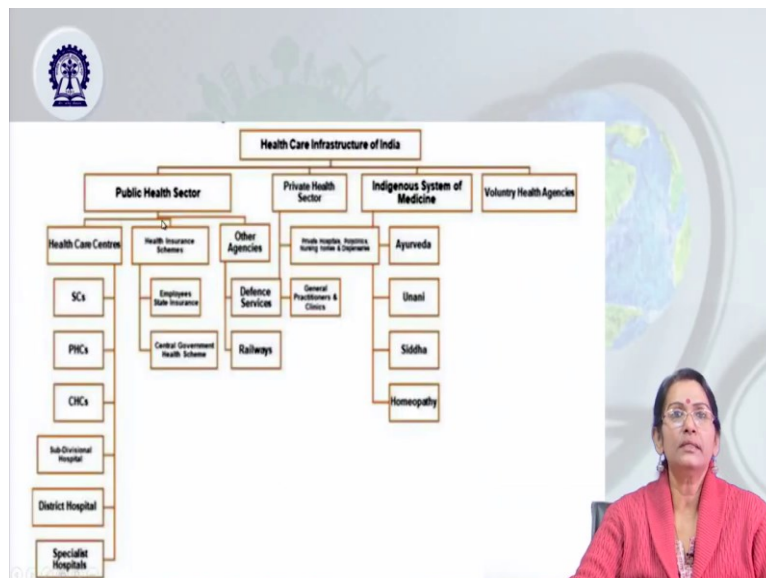
Like this is the healthcare infrastructure model in India of India, as we are focusing primarily on enhancing the health services in India primarily keeping in mind the global health status also.

So, the health care infrastructure in India, how it appears that is the main domain is that public health sector is there even private health sector is there. An indigenous system that is our traditional medicines like the Ayurveda then Unani medicine then Siddha and homeopathy all these are it comes under our indigenous system of medicine. Then some voluntary health organizations social agencies the NGOs and social entrepreneurs also they work in this.

So, primarily the responsibility lies in the public health care system that is with all kinds of this specialized hospital, health care centers. Then here you can say health then these are some of

the then training center education and training center for the health service and thing employees for the employees employers infrastructure.

Then the central government all kinds of the schemes and the ministries and other agencies other agencies which are allied with the health sector then defense services and the railways etcetera etcetera. So, railway hospital defense hospitals these are there.

So, parallel; that means, your parallel health agency is running simultaneously in other domains. Then private health sector is primarily it is a kind of private hospital specialized nursing homes hospitals etcetera private. But these are also working in along with in cooperation with the public sector health services.

Then also we take the help of we can say on our individual capacity or being the member of different societies. Take the help of these kind of benefits the Ayurvedic medicines and then homeopathy medicine etcetera. And the other voluntary organizations which are also not exactly on the treatment, but also they are also working on this diagnosis a kind of referral services and the consultancy services. So, this is the framework of health care structure in India.

(Refer Slide Time: 02:31)

However, there are some problems; problems of the what are the key problems crucial problems of health care infrastructure in India? That is first thing is that shortage of staff and equipment. So, in most of the public health hospitals, public health organizations or the primary

health care centers, lack of modern or latest equipments lot of updated equipments lack of updated equipments and infrastructure.

So, that is one of the crucial issues. And moreover shortage of staff such as shortage of trained staff trained staff who can actually operate who can handle and who can actually counsel and the direct the people or even provide the support system support services to the existing physical practitioners.

So, shortage of staff especially the nursing staff, especially the caretakers, especially the supporting staff and shortage of updated or the latest equipments especially in the rural and remote areas that is one of the problem that we are facing in India.

Then healthcare infrastructure is heavily skewed in favour of urban areas; because in most in urban areas. Most of us most of the urban cities and cosmopolitan cities we are having the very good hospitals from the you know from Apollo from you know AMRI from even nowadays all AIIMS are there in every state capital almost every states.

So, all these good hospitals and with good infrastructure and health services are primarily situated in the city areas urban areas. So, that is the disadvantage because the remote people they cannot rural people they cannot have direct access to this kind of quality service. So, they have to come down to this kind city hospitals and city areas urban areas for any kind of treatment.

So, then again inter-state and intra-state variations again within every state like again moreover this all the public as well as the private hospitals are functioning in the urban cities. So, within the state some of their you know some of their state policies state health department initiatives schemes etcetera.

So, these are there are different variations in inter-state between two states may be that something is very good in Maharashtra and Gujarat maybe in comparison to that the other things are not so good in other states; like maybe in MP or some so, in MP or northeast etcetera.

So, inter-state variations are there and intra state within the state also variations are there intra state support within Odessa with within west Bengal like some zone wise maybe that central zone is very much facilities are available. Like the state capitals are very much enriched with

this kind of facilities; whereas, the remote areas within the state can are not are deficients are deficients is some of the infrastructure and facilities etcetera.

So, now that that is why all these now there is government has adopted a scheme a rule for deputing the doctors the freshers the fresh MBBS doctors to depute them to the initially for the to the rural sector to the rural people for the remote posting first.

So, they want to settle down they will be its a mandatory kind of thing that they will be shifted they will be transport to initial first posting will be definitely for 2 or 3 years in the remote area. Primary health care centers and the rural disadvantage committee thereafter then you can move on to the semi urban or the urban cities.

So, no proper regulatory mechanism and monitoring. Especially for especially for main hospitals or the urban hospitals so, the all the with the digital platform and facilities. Monitoring and evaluation mechanisms there, feedback is there feedback is appraisal form is there its it is functioning a little bit better in comparison to remote areas the remote areas. So, remote areas are practically there is no monitoring, no evaluation, no appraisal mechanism etcetera.

Whereas in the urban areas these things are better, but we cannot say that it is the best; because one or other way some or some or other good hospital also they are also lacking in some or other way. So, it has to be it is it has to be harmonious and consensus development like the all the; that means, thing is that you cannot be you cannot be very much complacent.

In the sense that yes our hospital is the best hospital we are having the best service you cannot be any hospital authorities they should not be very much complacent that we are the best they cannot take the pride of; because always we should be in a kind of in a form of continuous learning.

So, even though we are better even though we are providing the best service how can we be much better than this how can we be the best. So, gradual gradually; that means, we you have to be we have to be passionate about better service, better quality, getting the data feedback and being transparent.

And even though not only the quantitative data that is this much of operation these things etcetera, but the qualitative feedback, qualitative feedback to enhance the service better service

infrastructure. Even though the hospitals if they are having in spite of having the better infrastructure OT doctor so and so.

But the communication, but the care giving service the communication the liaisoning thing, the logistic thing and this patient care especially the patient care and care for the and being empathetic and proper communication to the patients caretakers. These things are also very very crucial these are it appears to be very minor things, but these things actually these things of this because it is a service related industry service related organization sector.

Hence these kind of qualitative relationship, human relationship, empathetic relationship also matters a lot in enhancing the value in enhancing the value or the significance of your health services. So, these have to be introduced the regulatory mechanism monitoring and regulatory mechanism and appraisal and quick feedback and appraisal time to time feedback these are things are very important.

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So, a research study done by the Garg et al two 2020 said that the public healthcare system is grossly inadequate to take care of the health needs of the citizens in the post pandemic. So, during the pandemic also all of us we have experienced that how chaotic the situation was with the lockdown.

With the police staff the police staff and the medical staff being overburdened with the overburdened with the workloads and with you know limited; unless and until the vaccine has

come out has come up and with the emergency of emergency of so many outbreak of. So, many COVID cases etcetera.

Then and installation of the COVID hospitals and proper training to the doctors and nurses regarding the COVID treatment, COVID patient treatment all these it creates a complete chaos not only in India, but across the globe. So, here so, the so, these are the so, we can say these are the health related health system building blocks.

So, WHO has identified this six health system building blocks that just from the study that the lessons are learned and during this pandemic what actually pandemic has taught us regarding the these lessons. So, first thing is that the governance; the governance and leadership should be very very meticulous. In the then it is from the definitely at this point of time this centralized governance and leadership qualities is very very important.

The leaders should be extra cautious, extra caring, extra strategies, extra proactive in thinking their strategic thinking and implications and reflective ideas. So, then that is one thing that leadership and governance is most important. Second is the health information system that is all our digital help lines digital help lines that is that that is second most that is you know data entry, data dissemination then updating the system all kinds of health information the.

So, that health information system that is the digital platform should be very robust in that sense that has to be that is another important factor. Then service delivery quick service delivery because even though we are using it in the digital platform with our latest technology and so and so, but ultimately human resource also matters a lot because the mediators the mediating mechanism is being done by the human resource.

So, service delivery machines can be updated machines can be operated through robots and AI related machines etcetera. But; however, the services can be also provided with the better service human services with human empathy value and the concern.

Then finance is definitely economy is a financing and the cost is a cost is a very huge factor and with this pandemic the lockdown. The governments you know governments funds and the fund for all as for establishing all this COVID hospital updating the facilities etcetera; it is a remains challenged it is a it has remained a very challenging task for the government especially.

Then the health workforce and instantly abruptly and an emergent basis; how to create a large health workforce with the shortest period within the shortest minimum time limit with the proper training of the health workforce that is also another primary challenge. That means, this is the time that we actually realize that how backdated we are in creating the health workforce.

And trained workforce not only skilled and trained workforce. And then again access to essential medicines again essential medicine in terms of you know. Again another chaos is also that the same medicine can be; that means, can be found or are being sold out in from the different banners different brands with different prices.

So, then again to identify the different differences difficulties and the and how to curb the prices of the medicines like same medicine are being sold in the different prices on different companies brand names. So, how then how a common man how a common man can have the easy access affordable they can afford to this kind of expensive medicine from the market.

So, that is educating the common man the people regarding the medicines the updating them the regarding the affordable or the less expensive medicine for the same treatment. These kind of things are also very important because it is not for the business or enhancing the business of medical medicine medical enterprises.

But also capacitive making enhancing the capacity or capacity building for the people common man to acquire some minimum knowledge; mainly minimum knowledge about the medicines for different illnesses different sickness and the compositions how the same thing can be recovered can be procured from other sources.

This kind of medical medicine related information sharing this information this is also another challenging task because you know here the affordability the cost of the medicines or cost also can increase to it can also be burdened to the common man and the rural people. So, these are some of the challenges that we are facing.

So, this corona pandemic actually has truly taught us so many lessons, so many lessons and which also helped us in rectifying our health system in enhancing the effectiveness of our system. But still we are learning it is not we are not completely; that means, achieved everything, but we are still learning and we should be better prepared for the future such kind of disaster health service or health factor.

So, we should be better prepared for the future. So, we should not be very happy or complacent that yes we are updated now we are having the vaccine here we should not be complacent and we should not sit idle. But rather keep on working on the not only that and not only on the services and infrastructure information system.

But also the medicine cost vaccines and how we can indigenously how the indigenous medicines can come up with the lowest price so, that our common man rural people poor people can afford to purchase it and buy it. So, these are some of the key issues.

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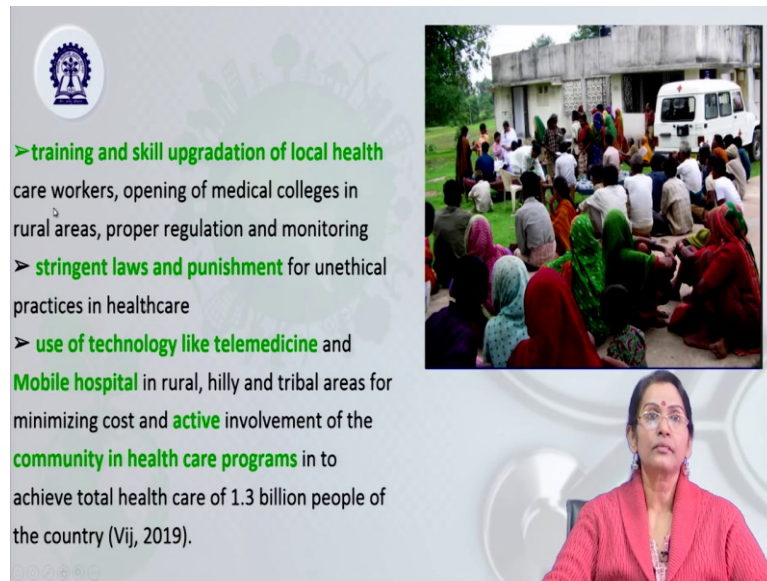
So, another again another study that also highlighted highlight the disparities in the rural and the rural and urban India the health services. And how to strengthen the primary health center this has become a primary issue primary area of focus for our thing.

And increase expenditure on health especially in the rural sector in the public sector public health sector health sector and with the combination of the physical and the human infrastructure. Physical infrastructure is required as well as the trained health staff trained work force and trained health workforce is also very important. So, we should also give focus to these kind of issues if we want to make our health care system more sustainable for the future.
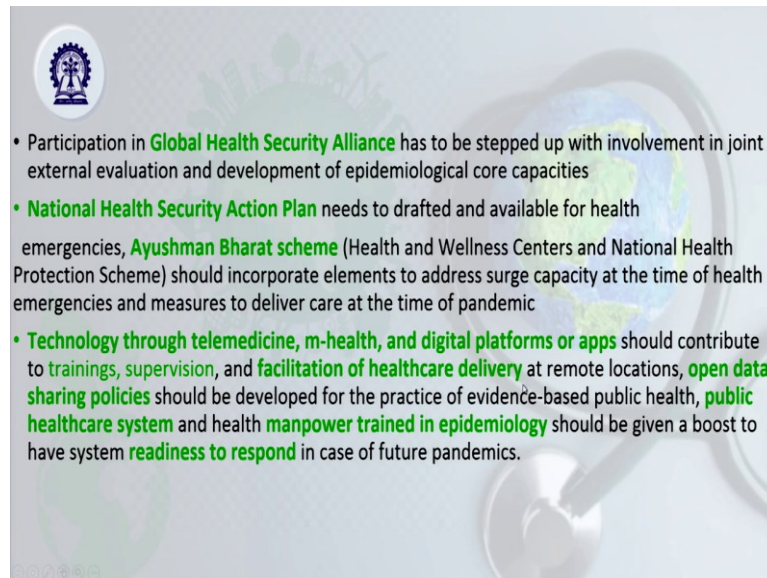
So, training and skill upgradation of the local health with the primary health centers to the care workers to for opening the medical colleges in the rural areas proper regulation monitoring, evaluation, feedback, counselling, proper counselling also every with every hospital there should be proper counselling center; that is for to take care of their mental health issues.

So, similarly another stringent law and punishment for any such kind of unethical health practices or health unethical health care services. Then use of technology and the telemedicines mobile hospitals; especially in the rural areas hilly areas tribal areas and with the minimum for minimizing the cost and active involvement of the community health program health care programs.

And how to how to collaborate with other health agencies like some agencies NGOs which are exclusively working on the social sectors, health service sector, skill development sector or training sector like giving training to the nurses and nurses and the a names nurses and other supporting staff.

So, building the skilled workforce, trained workforce in health sector in cooperation with collaboration with other NGOs or nursing centers training centers skill development centers; the this is also a very important task or issue a challenge for us to. So, that we can build up a very robust health care system.

(Refer Slide Time: 17:10)

So, participation in the Global Health Security Alliance then National Health Security Action Plan, Ayushman Bharat scheme. And the technology through telemedicine mobile health digital health platforms different health apps. Health apps like you know we can say health apps during the pandemic that then open data sharing policies training supervision and facilitation of the healthcare delivery system.

Then healthcare then manpower trained epidemiology the different kind of workforce they should be trained in different kind of epidemics. So, manpower trained in the different epidemiology also should have been should be given special emphasis then readiness to respond quickness promptness to respond to this kind of pandemics on the critical health issues that is also very very important.

So, we have to; that means, so, many it is a it is a health is a you know it is an society it is a enterprise. So, it is it has n number of issues n number of branches. So, we have to be very meticulous and very careful, very empathetic, very sincere and very passionate about all the all and every major as well as the minor issues. So, if you want to main maintain or if you want to make our health system more sustainable more sustainable for the future generation.

(Refer Slide Time: 18:33)

So, we can say that here sustainability of health care system depends on seven factors that we have already discussed. But to have an overview let internal factors you know we have already the internal factors that efficiency and effectiveness of health and care provisions. Availability of the well trained health care workers, nurses, staffs etcetera.

Cost effectiveness that is the internal factor external factors is the health and resilience of the population the community people the workforce etcetera how resilient they are the population. And the contribution of the caregivers and the informal networks of the care, again there are also the media agencies or the reporting agencies the information sharing agencies those who are they are the, but for the publicity for the advocacy for the counselling.

So, their services also is very important in case of informal network and care giving and giving the right information educating the people. So, these are the thing and integration of policy and the practices with other sectors; like public private partnership with NGOs, NGOs and other local communities and primary health care centers.

So, that is also these external factors is very important and overall over all as we have already discussed that the both the public and politically acceptability and support is very important. If you are going to start an health enterprise in any city or any country any rural area etcetera. It should be supported wholeheartedly supported by the common man the public as well as the political people that by the government.

So, both public and political parties of the government support full support is very much important for the overall efficiency and effectiveness of the hospitals all the hospitals or the health care facilities and systems.

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So, the so, because the health care service is a very valuable service. So, the inherent value that lies in the health care that we can find out is you know that we can find out with this kind of formula this kind of calculation. Like, the outcomes of outcomes for the patients and the populations divided by the environmental plus social for the financial impact that is the triple bottom line triplement the issues that an environmental impact social impact and the financial cost effectiveness impact.

So, that is kind this kind of thing with the equation with outcome of the patients and population. So, it can show us how value oriented value valuable this health care facility service is there in any particular kind of a location or the state or the country. So, here value is related to as we can say how well a healthcare system meets its objectives not only that the healthcare subsystem meets its objective.

But it is also it also looks into the affordability rate its waste management, its impact on the social development and economic and the finance even for the economic growth and finance of the community of the. That means, to maintain a balance in the in your prosperity or the economic domain, economic growth of the enterprise as well as the affordability rate of the public.
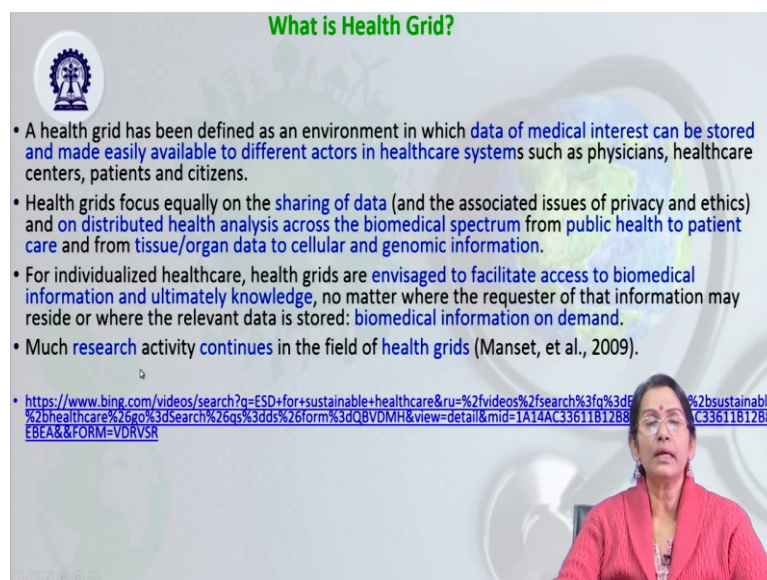
So, that is all these health policies are there that is Modicare policy, health care policies are there that is to. So, that those with the health card and the minimum expenses how the poor and rural people they can get the access to the good quality of health services.

And so, it can be defined as the outcome of the process relative to the cost what how effective it is outcome of the whole process in comparison to its cost and effectiveness. And how ecologically environmentally sustainable it is in terms of in terms of protecting the ecosystem and minimum carbon footprint and minimizing the waste and waste proper waste management.

And again the cost that includes the environmental social impacts. So, that should not exceed also. So, and the outcome also it refers to both the individual patients as well individual patient satisfaction they are; that means, follow up. Feedback is also very good at the same time overall outcome that is total communities of the populations outcomes should also be very good and satisfactory.

So, the sustainable value in the health care. So, here can be expressed with this given thing. So, this is the sustainable value of healthcare that is outcome of the patients and population divided by the all the triple bottom line impacts that is social, ecological and the economical impacts.

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So, here I here we can talk about a kind of health grid. So, what is this health grid? So, this health grid you can say it is a kind of system it is a kind of system design system, where it is

comprised of the data comprising of the data of the medical interest and medical related information and made easily available to different actors and the healthcare system.

The database we can say creating a database for all kinds of stakeholders that and the information regarding the physics physicians, doctors, healthcare facilities available centers and the patients and the citizens. For all kinds of database and information that is the how to build up how to set up a the health the health grid or the system on the consisting of all kinds of the primary data primary information.

So, similarly health grid also focuses equally on sharing the data it is not for the only possessing for the central government or the public sector domains, but it is for how to share the data. So, data in association with other agencies, but of course, by following some privacy some ethics and some kind of thing you know from you can say from security also security things so, and distributed health analysis across the biomedical spectrum.

So, from also from time to time the analytics should also be done. To analyze different kinds of distributed health analysis across the different biomedical spectrum in different public health domains to the patient care to the; that means, organizing the data to the cellular and the genome genomic information.

And all kinds of new emerging diseases like pandemics like the now this COVID-19; it has created enough database enough information system for the better preparedness of the future. So, this kind of this kind of emerging challenges also that should be also taken into account.

So, this how to maintain this all kinds of data share the information disseminate the information. Doing the analytics doing the analytics for better preparedness for forecasting for predictions for better preparedness these are the. So, that is the advantage of the developing a health grid.

So, for individualized healthcare system these health grids actually they envisaged to facilitate access to biomedical information and ultimate knowledge. Now suppose any patient it he has some problems health issues related to blood pressure or heart disease or diabetes or whatever he can search in this grid health grid in the system that which hospital has the best medical service treatment for this who is a best doctor.

And then what in which hospital what extra facility is there which is affordable which cost everything every data single information they can get from this system that health grid system. So, all kind of biomedical information on demand can also be can also be served.

So, all kind of like the Google search like all kinds of biomedical information can be provided can be provided on demand basis also. So, the and research and continuous research and development activities also continues to strengthen this field of health grid.

So, this is the new this is the new pattern updated system; that means the that means developing the whole health system in a very robust way that is developing a sustainable and robust health system, through establishing a health grid. That is for the harmonious development of all the health care services and system as well as the dissemination of enforce biomedical information services everything.

So, these are some of the links that you can go through for the better sustainable health care and health related services. So, now, I am concluding it here. So, in the next class we can continue with other topics.

Thank you very much.