

**Education for Sustainable Development**  
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**Lecture - 20**  
**ESD for Sustainable Healthcare (Contd.)**

Welcome back viewers. Welcome back to ESD course on Sustainable Healthcare. In the last class we are discussing about balanced lifestyle, balance healthy lifestyle balance life and balanced diet, nutrition etcetera.

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The slide features the IIT Kharagpur logo in the top left corner. The title "PHYSICAL FITNESS" is centered at the top. Below the title are three bullet points: "A sedentary lifestyle, without much physical work, often worsens health and is the cause of multiple health-related problems. As a result of continuous engagement in physical activity various indicators of human health also show positive growth (Simopoulos, 2005).", "The right amount of physical engagement keeps us fit and live a long, stress free and healthy life.", and "Moderate amount of daily physical activity offers many benefits and relief from problems such as Osteoporosis, obesity, high blood pressure, heart diseases, back pain, and diabetes." To the left of the diagram is a basket of fresh vegetables. To the right is a circular diagram titled "MY RESOURCES" with "ME" at the center, connected to icons for "HOME LIFE", "LOCAL GOVERNMENT", "PHYSICAL EXERCISE", "HEALTH INSURANCE", "FAMILY", "TRANSPORTATION", and "CARE". A woman in a red top is visible in the bottom right corner of the slide.

So, to continue with that then we will go for, then next is the next important factor is that physical fitness. After good nutrition proper nutrition then the physical fitness how relevant it is, how important it is for our balanced lifestyle or positive health. So, of so in order to; that means, in order to maintain a balanced lifestyle and healthy physical status we need to engage ourselves, we need to engage ourselves in different kinds of activities.

So, instead of leading a very sedentary lifestyle, lousy lifestyle we should engage ourselves in some kind of physical activity depending on our context may be that if you are working, then in the workplace or if you are at home then similarly in the home activities also.

So that means, how much active and alert and engaged we should be and moreover whatever we are doing its not that it should not be a botheration for us, like it should not create a kind of

stress within us; that means, we should do it deliberately then voluntarily; that means, with; that means, with loving it enjoying it. So, its a kind of the physical activity, the engagement that is that should be meaningful for our life.

So, that is engaging ourselves in some sort of physical activities which can give a kind of happiness, satisfaction, a joyful experience so that it can be, it can be converted it can be directed towards the positive growth. So, that is also the researchers also found it. So, the right amount of physical engagement that keeping ourselves fit, then stress free and that the peaceful mind and the meaningful leading a meaningful life relevant life and getting the value out of this that is the right kind of approach positive approach towards our physical fitness.

So, a moderate amount of daily physical activity also offers us the benefits and it also gives us kind of relief or relaxing mood also; that means, mood so that we can devote and concentrate more on our own personal development. Like taking care of our health then mind; that means, devoting time in you know in the mindful activities in that mean distressing ourselves in some kind of, pursuing some kind of hobbies then listening to music. So, automatically it can keep in control all our blood pressure then heart pressures, blood pressure and heart related any problems and the back pain.

Even spondylitis, obesity all kinds of things. So, if all these things will be in control, if you can maintain a routine kind of physical activity daily activity with the benefits and the again we should not be over stressed over burden with the activity, but it is kind of moderate activity. So, that we can get the free time to relax to pursue our hobbies to enjoy our life and get the meaning out of it.

So, these are some kind of the resources, resources that we can engage ourselves in different kinds of activities, maybe in gardening in cooking mean listening to music and practicing music and painting, drawing all kinds of any kind of hobbies that or even reading books also, reading books also can be very entertaining, very enjoyable experience. So, we must keep some time for our self development, self reflection, self contemplative learning, self pursuing our own hobbies with the moderate kind of physical activity.

So, that is very you can say that is a very kind of healthy lifestyle in the sense that; that means, we are giving due attention to our mental health to our physical activity as well as our spiritual growth also.

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- **Physical activity** also has a significant **impact on mental health** and helps to **recover from** problems such as **stress, Post-traumatic stress disorder, and depression** and **improves our ability to fight diseases** and be immune to them.
- A healthy body also is capable of **slowing down the aging process**.
- A **healthy lifestyle** is the consequence of a **healthy routine**; therefore, to live a happy and healthy lifestyle **diet, nutrition, and physical activities** must be given priority over everything else.

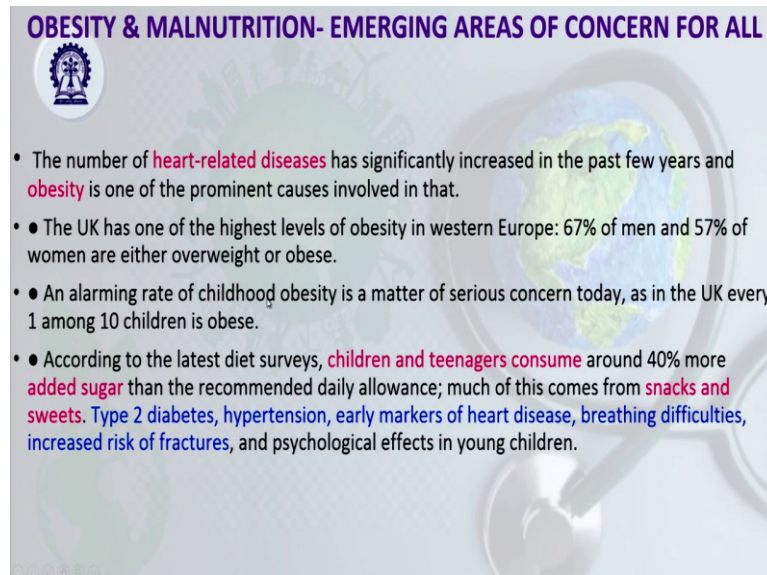
So, similarly the physical activity as we know us is physical activity has a significant impact on our mental health. So, in order to; so in order to recover from any kind of stress, any kind of post traumatic disorder etcetera and to fight back against any disease like which is which has encoders any kind of stress or the bad experience all kinds of things.

So, we have to in order to come back to the normal life and be resilient and to strengthen our immune system unity system then we should also, we should follow this kind of proper nutrition and proper physical activity. And it also in the long run also it slows down the aging process also, aging related effects. So, healthy lifestyle, healthy routine, healthy balanced diet, healthy nutrition, physical activity, spiritual growth then pursuing the hobbies and relaxing and you know mindfulness activities, meditation then and care taking care of our own personal, own personality even sometimes.

So, what happens is some nurturing certain things nurturing the nurturing service orientation, nurturing new kind of hobbies or nurturing some kind of you know goals in terms of services social services or educating or extending help to other people disadvantageable that also gives a kind of positive experience and meaningful experience to us. So, we must; that means, after sorting out a designing a kind of blueprint or timetable our own timetable if you can get some time out of it and spend it with others in service, with a service orientation with an intention to help them.

So, it can be very meaningful and it also gives a kind of you know meaningful experience to us which is very relevant very very relevant for our mental health.

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**OBESITY & MALNUTRITION- EMERGING AREAS OF CONCERN FOR ALL**

- The number of **heart-related diseases** has significantly increased in the past few years and **obesity** is one of the prominent causes involved in that.
- The UK has one of the highest levels of obesity in western Europe: 67% of men and 57% of women are either overweight or obese.
- An alarming rate of childhood obesity is a matter of serious concern today, as in the UK every 1 among 10 children is obese.
- According to the latest diet surveys, **children and teenagers consume** around 40% more **added sugar** than the recommended daily allowance; much of this comes from **snacks and sweets**. **Type 2 diabetes, hypertension, early markers of heart disease, breathing difficulties, increased risk of fractures,** and psychological effects in young children.

So, the major cause major cause no, most of the important for factor that causes our health is that obesity and malnutrition. A section of the population they are either disadvantaged in the from, they belong to disadvantaged community and deprived of proper nutrition. So, they are suffering from the malnutrition related diseases and another section of the population they are with because of their overeating or irregular or that means, bad behavior bad food habits. So, they for the victim of obesity.

So, these are the two important the most concerned areas for health counselors or health consultants. So, heart related disease significantly again definitely it increase the obesity because of heart related diseases emerge must because of the obesity and which is a very prominent cause in the today's world with the habit of fast food and cold drinks and soft drinks all kinds of things.

And this is the data that is the data from the UK which has shown that highest level of obesity in European countries: that is 67 percent men, 57 percent women and an alarming rate of childhood obesity even in UK and 1 among the 10. That means, 1 is to 10 ratio that the children are obese; that means, because of their sedentary lifestyle, because of their bad habits bad food habits because of our their; that means, their obsessions for you know fast foods, cold drinks and sweets and all kinds of oily foods etcetera.

So, because of this the obesity is another, is one of the emerging health; that means, health issue emerging health challenges that we can face and another is the malnutrition. These are the two you can say contradictory kind of, but two are crucial challenges that we are facing nowadays. So, that is why for example, we have to maintain a healthy balanced chart, balance diet chart sheet chart the list of chart of balanced diet that is for the different age groups starting from the children to teenager, teenager to the middle aged people to the old aged or oldest people.

So, for different age categories we must maintain a kind of chart of balanced food with an consumption of different kinds of protein and the different kinds of nutrients along with the vitamins etcetera as for the; as for the percentage level as per the as at par with the age level criterias. So, that is how to avoid the unnecessary snacks and sweet and sugars and oil etcetera. So, because you know some of the diseases like type two diabetes hypertension.

So, all kinds of early markers of the heart disease and breathing difficulties and increased risk of you know fractures and osteoporosis all kinds of things, even in the same some of the psychological effects in case of the young children that is because of the only not only because of the diet also bad diet, but also due to the lack of physical exercise, lack of social interaction social relationship interactions and the games as well games.

And in this pandemic, in this pandemic scenario most of theirs because most of the people, most of those children, most of the young old people they are confined to their own houses and houses and their.

So, they fell they fell felt very much depressed and now cut off from the social activities they said, but here again it this kind of situation also gives us an not only challenge, but it has also taught us it has also given us an opportunity to develop the good habits good habits that is adoptability skill, resilient being resilient and to pursue new hobbies.

That means, how to engage ourselves even inside the door how to engage ourselves in the meaningful work, in the knowledge and skill development, competency development, technology in the even in the digital platform also how to engage ourselves in other kinds of home activities; and other pursuing other hobbies reading behavior.

So, that again it gives it to gave us a challenge, not only challenge an opportunity and you know to be innovative to be creative in thinking and preparing a plan, preparing again the daily

routine even during this quarantine or the lockdown period. So, that is also it has also give us an opportunity for the better preparedness for the future; that means, all when we are working outside is ok, we have to maintain a work life balance diet, physical activity everything.

But here staying inside the house staying inside the confined in the in our own residence and cut off from the social activities and with the social distancing and etcetera. So, how to engage ourselves in a very meaningful and very and having a very enjoyable experience learning experiences that is also a kind of challenge that we have faced not only faced, but it has given us an opportunity to learn certain new things, new develop new skills, new competencies, new you know new mental health strategies.

So, these things also so to be taken care of especially not only the obesity and malnutrition, but how to stay in an isolation in isolation how to engage ourselves. So, it is important not only the self engagement, even in the virtual community in the online community, in the learning community how we can also share our thoughts and ideas, how can we engage ourselves. It is not that 24 hours we be engaged with our mobile phones, with social networking sites or social networking or the Facebook and YouTube etcetera, that is not the justified way.

But yes, for relaxation, for communication for kind its ok, but at the same time we can engage ourselves in a better way by learning some new skills, new competencies, new subjects, new knowledge as well as engaging our engaging within because we have enough of time now. So, how to engage ourselves with a in a very distributed and meaningful way that also we have learned out of this situation.

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**MALNUTRITION- CURRENT STATUS**

- Malnutrition refers to **deficiencies, excesses or imbalances** in a person's intake of energy and/or nutrients (WHO,2021)
- Consumption of a **poor quality diet** and **inadequate** consumption of required **nutrients** is a significant cause of malnutrition.
- Around 1.9 billion adults worldwide are overweight, while 462 million are underweight. An estimated 41 million children under the age of 5 years are overweight or obese, while some 159 million are stunted and 50 million are wasted. Estimated 528 million or 29% of women of reproductive age around the world affected by anemia, for which approximately half would be amenable to iron supplementation (WHO, 2021)

<https://www.bing.com/videos/search?q=ESD+for+sustainable+healthcare&ru=%2fvideos%2fsearch%3fq%3dESD%2520for%2520sustainable%2520healthcare%26qs%3dn%26form%3dQBVMH%26sp%3d-1%26pq%3desd%2520for%2520sustainable%2520healthcare%26sc%3d0-30%26sk%3d%26cvid%3d4B4B70D92516457CB443D019BE112A80&view=detail&mid=DOE48759E697A1D97118DOE48759E697A1D97118&&FORM=VDRVSR>

So, malnutrition what is the current status as per the WHO, 2021 status? The; so, that means, malnutrition primarily refers to the deficiencies excess or imbalances in the nutritional status, energy and nutrition status. Then consumption of the poor quality of diet or inaccurate diet or that is the poor consumption of this or bad food habits, bad food habits and out of these.

So, around 1.9 billion adults they worldwide they actually they are the victim of this kind of diseases primary obesity or malnutrition. And so, estimated 528 million or 29 percent women of the reproductive age around world are affected by the anemia that is poor malnutrition. And which approximately out of which approximately half would be amenable to supplementation which requires supplemental diets. So, this is the data of WHO 2021. So, this is the these are the website links you can go for further discovery of this data.



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**Current Health Status – INDIA**

- **Communicable diseases** - CoVid-19, Malaria, Dengue, HIV, TB have reduced, but still persistent (National Health Profile, 2020)
- **Non-Communicable diseases** such as Cardiovascular diseases, Diabetes,
- **Cancer** Contributes to >15% of deaths in India. It is expected to cause more than 80% of health burden globally (WHO - Non-Communicable Diseases Country Profiles, 2018).
- **Mental illnesses and disorders**
- **Disability**
- **Mortality**

**Life Expectancy at Birth**

State	Life Expectancy at Birth (Years)
Andhra Pradesh	72
Assam	71
Bihar	68
Chhattisgarh	70
Goa	76
Gujarat	73
Haryana	74
Himachal Pradesh	75
Jharkhand	70
Karnataka	74
Kerala	77
Khyas Pradesh	65
Madhya Pradesh	67
Madhya Pradesh	66
Odisha	71
Punjab	75
Rajasthan	72
Tamil Nadu	74
Telangana	73
Uttar Pradesh	69
West Bengal	72

**Infant Mortality Rate**

Category	NFHS 1	NFHS 2	NFHS 3
Urban	56	47	42
Rural	85	73	62
Total	79	68	57

So, the current health status in India. So, current health status in India that is yes, Covid-19 is the primary communicable disease, malaria, dengue, HIV, TB these have been reduced, but still persistent with the national health profile that is the non communicable non communicable diseases like the cardiovascular diseases diabetes and the heart related problems.

These are the non communicable, but very common features nowadays in the society. Again cancer almost contributes 15, more than 15 percent deaths in India. It is expected to cause more than 80 percent global burden globally by gradually the WHO says that non communicable diseases country profiles 2018. So, but now in this pandemic what are the other mental health issues, like the depression stress and psycho social psychophysical kind of imbalances psychophysical diseases are also or are the new features added features in this thing.

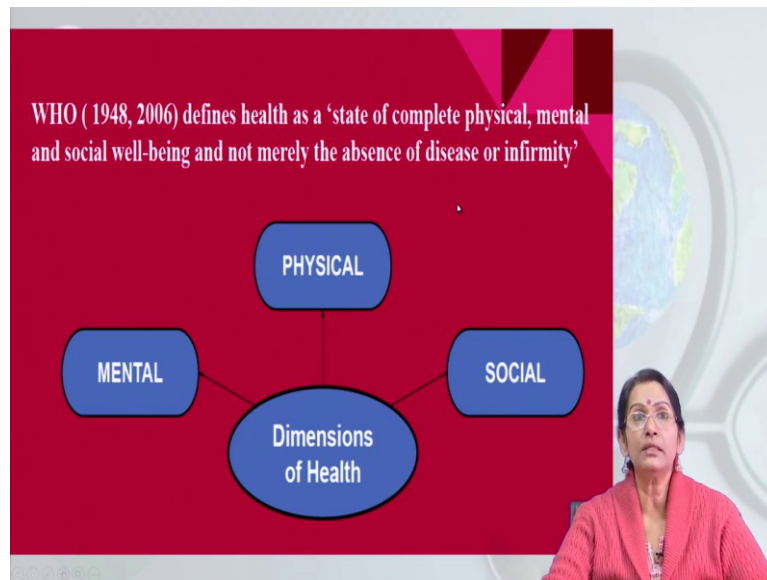
So, during this Covid-19 pandemic also we also we are suffering we are experiencing also some mental health issues which are the emerging challenges to the health sector. So, mental illness and disorders primarily during this since 2020 and moreover disability is there, mortality rate also, child mortality and infant mortality rate also is there.

So, these are some of the data, these are the state wise data about life expectancy at birth, that is in different states that it can show the highest the best data is in Kerala and the poorest the lowest data is in the Madhya Pradesh I think.



So, infant mortality rate what is this thing. So, these are some of the data which are available already available in the internet in UNESCO portal, WHO portal, as even DP portal also that we can find out.

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So, WHO in 2006, defines health as the state of complete physical mental and social well being and not merely the absence of disease or infirmity. So, as per the definition of sustainable health. Similarly, WHO has said that the sustainable health or the good health and well being defines that it is not just the absence of the diseases. But for the complete you can say, but complete physical mental and social well being.

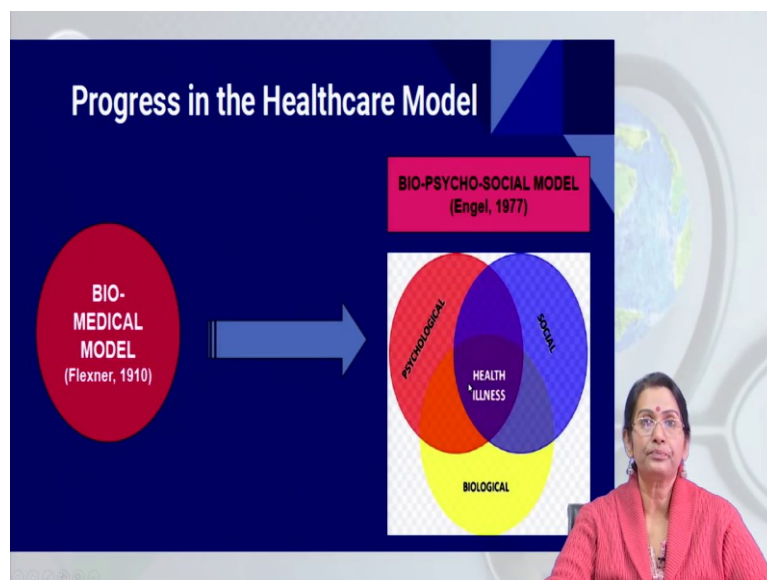
So, it is not just having the possessing a good right health, good physical health, but healthy lifestyle, healthy physical; that means, healthy physical health positive physical health leading towards the well being and welfare. Mental health similarly, the mental health not just possessing the individual mental health or positive mental health, but leading towards the well being or the long term, long term outcome or long-term implications are or serving or contributing towards this community well-being.

Similarly, the social well being also that is social cohesion, interpersonal relationship, being empathetic, being developing positive characteristic strength like caring then resilience, then caring and sharing with others, care for the society, then taking care of our planet, our environment, ecosystem having the service orientation. And then developing all kinds of the

positive values like altruism, gratitude these are all comes under the social health. So, how can we enhance our social health?

So, not only getting ourselves free from the diseases all kinds of dizziness diseases or sickness or etcetera, but also how to move, how to transform ourselves towards the positive dimensions that is towards the individual well-being, social well-being as well as the community well being. So, these are the primary domains dimensions of health and how we can move forward towards the community well-being, social well-being and so that we can move towards the global well-being.

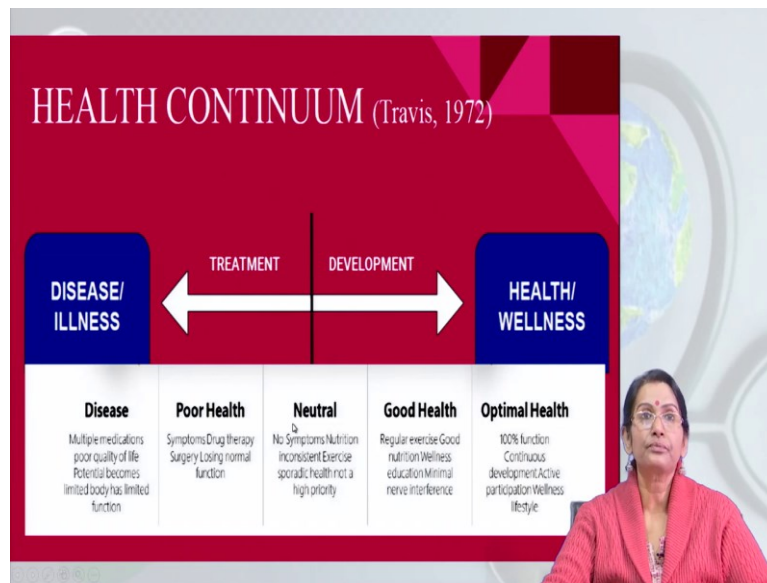
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So, here you can say, we can that in the health healthcare model we can find out how this the, how the progress that is the model that is the from the biomedical model given by the Flexner, in 1910 from the biomedical model how we can move towards a sustainable that is biopsychosocial model. That is both biological, physiological, psychological, social model in 1977 given by the Engel. So, here we can say health and illness or health illness or health fitness or well being all these are directly related to biological means environmental or physical biological genetic all kind issues.

Psychosocial, psychological issues, psychosocial psychological emotional issues as well as the social issues. So, these are the; these are the primary domain which affects our health and well being. So, besides our biological framework biological that is the genetic factors.

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So, there is again health is a continuum, Travis 1972 said that health is a continuum; in the sense it is not nice not like absolute like yes or no there is it is a continuous slow, its a progressive, it is a progressive like from the this complete illness disease suffering disease and suffering to gradually moving towards the treatment with the good treatment, try gradually moving towards the progress and development.

And then gradually it moves towards the health and health wellness and complete well being. So, here we can say we map it we map it in a continuum either starting from the with multiple complete complexities or poor quality of life to limited you know limited body immunity all kinds of things functions to the gradually moving towards the, again having the moving towards slow development with even still even having the poor health and symptoms of some drug therapy some surgery etcetera.

Then moving towards having a balanced state of a physical body and mind that is with having no symptoms or recovery or you know exercises with gradual recovery of health related complexities and then thereafter then slowly moving towards the good health, regular exercise, good food, nutrition, proactive approaches to life positive engagement etcetera then come to the optimal health. So, here optimal health is that 100 percent continuous development, 100 percent you know participatory wellness lifestyle everything.

From optimal health then we can move towards the sustainable health optimum health that is at present we are good we are healthy we are happy etcetera, but how to retain that positiveness,

how to retain and sustain that health status and positive health, then how to think for the plan for the future. Then we can move towards the sustainable health.

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The slide features a logo in the top left corner. The main title is 'IMPORTANCE OF HEALTH AND HEALTH EDUCATION'. Below it, the text reads '(McGregor, Camfield and Woodcock (2009); Needle (2013); WHO(1948))'. A key point is highlighted: 'WHO (2006) emphasizes the importance of health as a fundamental right.' To the right, a dark blue box contains two sections: 'HEALTH & WELLBEING' and 'HEALTH EDUCATION', each with a list of bullet points. A video feed of a woman in a red jacket is visible in the bottom right corner of the slide.

**IMPORTANCE OF HEALTH AND HEALTH EDUCATION**  
(McGregor, Camfield and Woodcock (2009); Needle (2013); WHO(1948))

WHO (2006) emphasizes the importance of health as a fundamental right.

- HEALTH & WELLBEING
  - Living in harmony with the self, others and the environment
  - Improve the overall quality of life
  - Increased productivity
  - Basis for attaining peace and security in the world
- HEALTH EDUCATION
  - Responsibility of gov. to educate and empower people
  - People to take informed and conscious decisions

So, here definitely there is a requirement for the Importance of Health and Education, health related education. So, WHO has emphasize that the importance of health education health is the fundamental rights and rather is the fundamental life right and the health and well being how these are, this can be communicated, this can be the this kind of information can be shared and disseminated.

You know in a disseminated in the among the community people through different kinds of workshops, awareness programs etcetera that is how living in harmony with the self with others and with the environment.

Living a peacefully in living in harmony with our individual self with others and with the environment how this how important these things are, how to improve the overall quality of life with balanced food, nutrition, diet exercise etcetera then again how to increase the productivity our own productivity, individual productivity, community productivity, group productivity, team productivity, social productivity by engaging ourselves in the positive and the productive activities. Getting engage ourselves in the meaningful activities so that not only our own development, but the social development community development takes place.

Then basis for attaining the peace and security in the world, if you want to have the peace and justice the peace prevail in the society if you want to prepare our society for a peaceful and just society then these things are you can say these are the prerequisites. We can say these are the prerequisites only after achieving all these things then only we can move towards a peaceful and the just society.

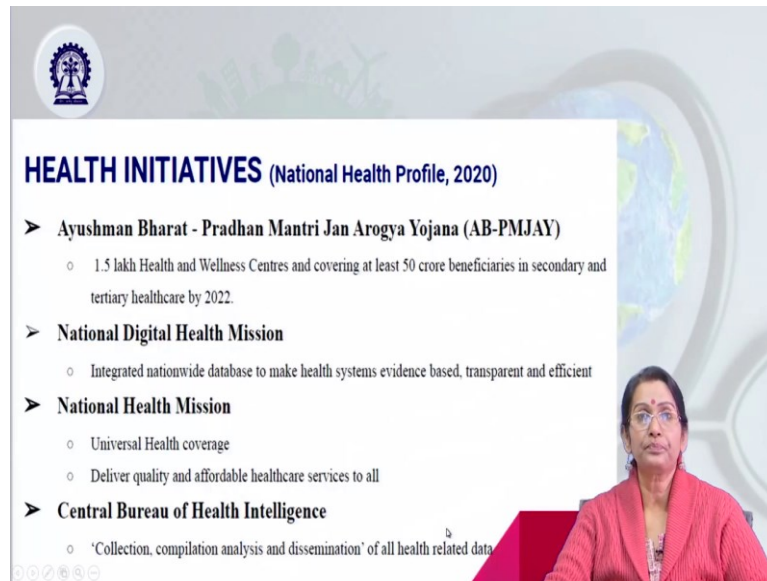
So, health education that is responsibility of the both the government to educate and empower the people even the non government organizations, social sector, social entrepreneurship sectors they are also their job responsibilities to educate people to serve people to educate people to enhance their awareness. So, that they become more capable of taking their own responsible responsibility of their own health, their family health and their communities health responsibility.

And engage themselves in a very you know very careful and caring and empathetic way so that they themselves can interchange or communicate these messages and convey this message to their fellow members, to their community members and they themselves can take care of the family members and their community people.

So, people also to take the informed and conscious decisions also here at the same at the same time taking the right decision at the right time that is also very important, like if you are suffering for some kind of disease, some kind of stress or some kind of health illness etcetera.

Then we should not waste the time just lingering it or lingering it in the because of the ignorance or the casualness etcetera, but rather we should contact the immediate primary health center or the doctors or maybe some kind of you know some volunteers from NGO sectors to get the remedy, get the treatment as soon as possible. So, taking the informed and conscious decision at the right time that is also most important.

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**HEALTH INITIATIVES (National Health Profile, 2020)**

- **Ayushman Bharat - Pradhan Mantri Jan Arogya Yojana (AB-PMJAY)**
  - 1.5 lakh Health and Wellness Centres and covering at least 50 crore beneficiaries in secondary and tertiary healthcare by 2022.
- **National Digital Health Mission**
  - Integrated nationwide database to make health systems evidence based, transparent and efficient
- **National Health Mission**
  - Universal Health coverage
  - Deliver quality and affordable healthcare services to all
- **Central Bureau of Health Intelligence**
  - 'Collection, compilation analysis and dissemination' of all health related data

The slide also features a video inset of a woman in a red jacket speaking, and a background image of a globe.

So, these are some of the health initiatives taken by our Government of India like you can say National Health Profile, national health policy introduced in 2020 that is Ayushman Bharat that is Pradhan Mantri Jan Arogya Yojana that is also that is under this scheme there is 1.5 lakh health and wellness centers covering almost 50 crore beneficiaries in the secondary and tertiary level, but to be achieved by 2022 this is the target.

National Digital Health Mission that is integrated national database created nationwide data database to make health system evidence based, transparent efficient and it can be. So, the every individual client individual client can have the access to his health status, to his health status through these digital health platforms.

Then National Health Mission; National Health Mission that is the how to achieve attain the national universal health coverage; that means, equal access and access to health care and quality health care that is the universal health coverage, delivery deliver the quality and affordable health care services to all.

That we have already discussed about, the quality health care for all across the country all across the globe the global citizens and. So, that is with the mean with the affordable cost they can also get the equal quality of access, access equal quality of health services will just like others or affluent people. So, it is kinds of equal access to good quality health services as well as with affordable cost with the affordable cost.

That is the that is how to deliver it that is under the national health mission universal health coverage; that means, across the country across the globe how every single individual, every single person can get the access to quality health services. And again Central Bureau of Health Intelligence is also there that is for the collection compilation of analysis of data disseminating the information, then you can say the all health related data health related data can be analyzed can be analyzed for you know for prediction, for future prediction, for future preparedness, for proactive approach.

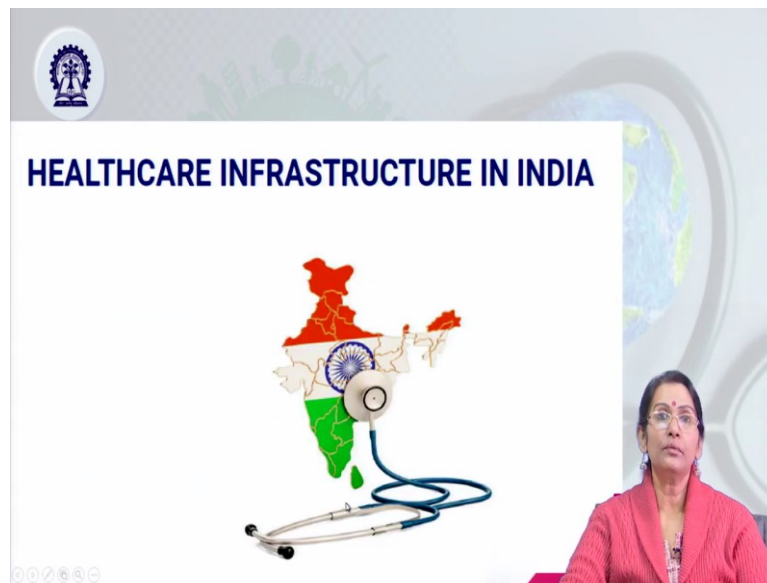
So, that any kind of health related disaster can be tackled can be tackled very efficient and effectively with the emergence of this any kind of risk. So, risk coverage, disaster management with the health issues of the risk like this kind of pandemics these are also very important. So, central bureau of health intelligence they exclusively work on this health data health facility services provided.

Then the patients feedback everything to strengthen the system, not only the digital system digital platform digital health platform, but also the prompt service of network of the all kinds of hospitals, health service units hospitals the staffs and the training and development, research all these things kinds of network can be strengthened can be (Refer Time: 26:36). So, now, with you know it was kind with this kind of the government schemes and the health innovations and the digital platforms digital health facilities.

Now, India is the gradually becoming slowly becoming a very I mean hot spot, you can say hot spot for the medical tourism, medical tourism most of the people they are visiting India to get the quality health services with the minimum cost its very less expensive. So, now, this medical tourism is also the output is the product of this kind of schemes being initiated by the government.



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So, up to this now how to make our health care infrastructure in a very robust, very strong, very transformative, very transparent, very effective so that is it is the responsibility of all of our all of us it is not just only the responsibility of the government or the health professionals, but it is the common responsibility, it is our social responsibility of all the citizens of India and all the global citizens. So, now, I want like to continue conclude here only with this much of discussion. So, next then we will look for the other aspects of the ESD.

Thank you very much.