

Education for Sustainable Development
Prof. Atasi Mohanty
Department of Humanities and Social Sciences
Indian Institute of Technology, Kharagpur

Lecture - 19
ESD for Sustainable Healthcare (Contd.)

Welcome viewers. Welcome back to this course on ESD that is Education for Sustainable Development and we were discussing about the ESD and Sustainable Healthcare. So, we have already discussed a little bit about the dimensions and what are the key issues of sustainable health care system and how what, how the patient how the patient care is very important and how waste management should take should be taken into care.

Then how; that means, how it can maintain a balance in our ecosystem in our health and health domain as well as the financial or economic cost effectiveness all we have already little bit discussed.

(Refer Slide Time: 00:55)

- Sustainability of the health and care system depends on **internal and external factors** and **public and political acceptability and support**
- The system's contribution to the economy—through supporting a **healthy workforce** and providing a platform for the leading **health research** and development
- **Cross-sectoral partnerships** of **private and public organizations** have crucial roles in building healthy and health creating communities, towns, and cities

Example: Experience Map for HealthCo

Creating context for change
Action learning
1. Network of champions
Research
2. Knowledge & tools
Leadership & policy

CENTRE for SUSTAINABLE HEALTHCARE

Now, to continue with that now we will discuss about the other things like for example, again for all these kind of things that we have discussed till now like starting from the strategic thinking to critical evaluation, to planning to economic aspects to feasibility to cost effectiveness, then waste management everything. Again for this so many things are internal factors, so many things are external factors, but at the same time there should be the public

support should be there and it should be political and public support and the political support all support and acceptability should be there.

Because with the public support and the political support the system can be more robust, the system can perform well, the system can function well. So, for sustainable health care system it is not just about the investors, it not just about the stakeholders, it is not just about the proprietor who has entrepreneur who has started this venture. But again all that all stakeholders be it public, government, private services, private enterprises, then local public then all kinds of supports are very much necessary or very much essential.

Because it is you know it is a very (Refer Time: 02:07) it is a humanitarian service. So, for this matter everybody's contribution, everybody's support and more at least moral support should be very very this would be very important and it should be provided then only the system can function very well. So, the systems contribution to the economy like through supporting the healthy workforce yes, those who are the who are in the patient care system those who are the manpower working behind the system.

So, to create a very healthy workforce we must have to invest money on that, not only in those in their salary and the privileges, but in terms of their training in training and continuing education. And we must also create the platform for health research domain that is the latest research should research and development should go on simultaneously.

So, again cross sectoral partnership of private and public organizations is very crucial like PPP model, now we can also install the PPP model Public-Private Partnership, that is PPP model can also be applicable to build a healthy and health creating communities towns and cities. Because it is not just for the community, it is just for the whole society, it is all for whole system it is also for the even to the hospitals of the good hospitals the people from the rural areas also coming to the coming to the reputed good hospitals.

So, not just only in terms of infrastructure, but in terms of service and care. So, therefore, we have to take into account all kinds of things. So, here we can see the example experience map of the health corporations, how public private partnership all the stakeholders they mutually cooperate agree and cooperate and collaborate. Similarly, here also research is one of the important component, then you know again the whole network of the hospital services including your infrastructure action learning your all kinds of services everything.

So, it is the whole, it is a system it is a miniature society it is a system that is more concerned about the health care well being and the facilities that is being provided to the stakeholders. So, therefore, it must be; that means, it must be supported by the public, the government both the internal support and external support should be there and PPP model can also be applied. And again it should be enhanced with continuous learning research development.

(Refer Slide Time: 04:44)



These are some of the accelerator themes that is the under the global action plan of WHO. So, these are some of the primary themes or the core themes for accelerating the health services. First thing is that Primary Health Care service: the what are the facilities minimum facilities available in the primary health care system the again. And then again sustaining sustainable financing for the health again, what is the continuous flow of the finance the money of the economy into the health sector that is the continuous flow of money that is sustainable financing for the health domain.

Then next comes important is the community and civil society engagement as we have already discussed that is the support public support private support government support even the MNC support also is very important. Then community support, civil societies engagement their support then it is very some very important then only their health service can be effective.

Then determinants of the health; what are the main determinant determinants of the health? Starting from the food, nutrition to you know communicable diseases to the you know to the you know infrastructure to the to the even the efficiency, even efficient doctors, skilled doctors

competencies and the competencies of the support system all the determinants of health domain.

So, this is important fifth is that innovating programs in fragile and vulnerable settings for the disease outbreak responses. Like for example, during pandemic for example, in pandemic and or other kind of like this is communicable disease or the outbreak of some kind of diseases like tuberculosis or plague or whatever kind of.

So, what is the urgent emergent or what is the emergency services, medical services health services in terms of the mobile services, in terms of you know extra rural unit services. How? What is the, what is the you know disaster emerging issues, emerging service units ready for this any kind of outbreak of any kind of diseases, outbreak of any pandemic or any kind of diseases.

So, innovating the program. So, how we should be ready, the healthcare system should be ready with this kind of programming programs and assets or units to you know units to reach out to the people very reach out to the people who are in the vulnerable setting, who are we cannot direct come directly come to the hospitals. And; that means, to reach the to reach to the rural setup and serve the people who are at the, who are the most vulnerable work most vulnerable people residing in the remote areas in the rural setup.


So, again research and development also is very important innovation and access to technology, these are very important and now the data analytics and the digital health services. Now, to make our system; that means, to get the feedback overall feedback about the efficiency and effectiveness we have to have the data, data to analyze that.

So, data analytics the that the health data analysis, data availability and analytics is very important for to monitor to evaluate to get the feedback of the system of the current system. So, that we can find out the gap areas and we can recover.

And the digital health service is the digital health service the whole; that means, time can be minimized time can be minimized, services can be made prompt very prompt and quick services. And the patient before coming to the hospital can have readily available all the data, all the all his health information with him. So, that he can come to the hospital with the minimum time spent, I can get the service and get the service and go back to the thing then there after the follow up program.

So, starting from the OPD, it is open OPDs to the operation theaters, to the post operation care, to the ICUs all kinds of service and you needs and I needs should be ready, should be modern should be up to date with all kinds of facilities. So, these are the 7 parameters we can say, the 7 parameters of for a healthy lives and well being according to the WHO World Health Organizations Global Action Plan.

(Refer Slide Time: 09:01)



• Dimensions Of Health

- **1. Physical Health-**
Lebedinsky et al. (2017) define physical health as "initial genetically determined human motor capacity (physical fitness), undergoing marked changes in the process of morpho-functional adaptation (physical development) to changing environmental conditions and standards of Living".
- **2. Mental Health-**
Mental health is "a state of well-being in which the individual realizes his or her own abilities , can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution" to his or her community" (WHO, 2004).
- **Social Health-**
➤ Social health is defined as "Our ability to interact and form meaningful relationships with others. It also relates to how comfortably we can adapt in social situations."

So, as of all of us we know the health means that it primarily consists of the three domains, from the physical health, mental health and the social health. Physical health: primarily it concerns with the we know the body that the body constitution genetically determine human capacity, physical fitness and then morpho functional adaptation then environmental conditions, the biological state of the patient of the client. This is all related to the biological and the genetically genetic structure of the patient of the candidate.

Then mental health: yes, mental health is the state of well being. It again of course, it depends on it depends on the mental state of the individual of the patient in the sense that what is his level of you know not only the physical fitness or weakness, but again his mental strength to or his, will power will power to be resilient to face this kind of situation.

So, mental health mental health, a mental state of well being, so it can be boosted can be boosted through proper counseling, through proper support system, proper from counseling proper discussion proper moral support being served being given by the doctors the, supporting staff,

nurses, etcetera. So, say that so that they can quickly or easily cope up with this kind of stresses in normal stresses in the life in the in life day to day life.

So, and they can also work productively in the sense then productively to make this contribution towards others also. So, after getting the services each individual candidate client can also support other patients, other public other people who are coming to the hospital. So; that means, kind of a kind of disseminating the information spreading the information that now more with the patient who is the old patient can also give the moral support to the, to other people who are who are coming up who are coming up or to the known person who are keen to go for any medical treatment.

So, in usually in medical treatment and health service definitely all of us we used to consult, we used to consult with not only with our caretakers and near and dear ones or the family members, but we also consult with different doctors we also collect the information about the different hospitals, health services from other public or the other sources other information sources.

We used to before going to the hospital definitely all of us we usually have a rough idea an impression about which hospital is good in terms of service, in terms of medicine, in terms of counseling, in terms of care giving. So, that is the mental health, how to enhance the mental health will power our mental state or being positivity or that kind of positive positivity and will and will power to face this kind of stress in the life as if it is very normal as it is very normal and it is very quick.

So, doctors voices, doctors counseling and the nurses care doctors counseling and nurses care are the most important thing in patient care service, in enhancing the mental health. And the social health: then again social health is defined as the, it is ability to interact and the form the meaningful relationship with others. Not only with the doctors, but also the supporting staff with the care caregivers the even medical staff and other technical staff, how to build up a rapport good relationship meaningful relationship.

So, that primarily depends on human love, care, empathy etcetera. So, that the patient becomes more resilient, become patient becomes very you know resilient in facing all kinds of things. So, that to build social health means there is all kind of interpersonal relationship meaningful relationship that usually built up during the process of health treatment.

So, that helps in (Refer Time: 13:06) helps in enhancing the adaptability in the adaptability in the social environment in which the care is being provided. So, that create a kind of a healthcare ecosystem very conducive very positive and very conducive to deal with.

(Refer Slide Time: 13:23)



What is social health?

- Social health simply means the ability to create good relationships, relate well with others and adapt to any social situation.
- A person with great social health comfortably associates with people and communicates freely.
- Social health is as important as having good physical or mental health because being socially healthy means you will have a stable life.
- Good social health will help you avoid depression, anxiety and sometimes even stress. It could also help in improving your general health and well-being.

What is Sustainable Health?

- Sustainable health is a personal commitment to maintaining and taking responsibility for your own health, through preventative (proactive) means.
- Health is a three way balance of genetics, environment and state of mind. Most of genetics and environment are out of our control.

So, then so social, so what is social health? To elaborate on this, what is social health that is yes definitely we know that is to create a very good relationship, how properly we can relate well with others, how we can adapt ourselves to any kind of social situation. Then again social health is also very much related to comfortably associate with the people and communicates freely before the doctors, before the nurses, before the other medical support staff having the good physical and mental health to deal with these things.

And, but again at the same time it is a kind of interpersonal relationship where you are getting the response the response. So, that this kind of good social health services and interpersonal relationship can also help us in reducing our depression, stress, anxiety and can move on towards the towards the general health and well being. So, that means, all kinds of human here, human touch, the care, the love, the counseling all this thing putting together the create a kind of very healthy supportive ecosystem.

So, from where we get the get the encouragement, the stimulus the resources to deal with our to ease out our anxiety to decrease or to reduce our stress and depression. And gradually or gradually move towards the healthy recovery quick recovery. So, here along with the source of

social health then comes our sustainable health. So, sustainable health is again, it is again sustainable health is also again it involves a personal commitment of the individual.

So, it is not just about the social health, it is not just about the mental health and the physical health, but it again its individuals commitment towards meeting making maintaining and taking responsibility of your own hands, that is this ownership. So, this is the owning the responsibility of your own health be careful about your own health being adopting the healthy habits all kinds of; that means, maintaining your health is the your individual responsibilities. So, that personal commitment should be there.

So, the personal commitment to maintain and maintaining and taking responsibility for our own health and through various kinds of proactive means, preventive things. And nowadays with all kinds of traditional therapies like you know herbal products, herbal Ayurvedic things, regular exercise then you know mind exercises, then meditation, then prayer, then yoga these kind of all these are the proactive measures.

So, all these things through this all these kind of proactive practices etcetera we should maintain our health in the sense that we should own we should take the responsibility of our own health and we should be committed to maintain that kind of thing. So, that is called the sustainable health etcetera. So, here there are three ways to balance, three ways the balance of genetics environment and the state of mind.

So, here we can say environment ecosystem is there, state of mind our mental health is very important and the well physical health that is the genetic balance genetics or the physiological factors. So, here all these things, here again with the physical health with the social health is relationship, with the mental health again we have to individually be committed.

So, here again another domain is that the personal commitment, owning the responsibility and personal commitment. When all these four things, this physical, social and mental along with our individual responsibility and commitment then it becomes sustainable ok. So, that we can fully monitor our own health conditions we can fully take care of our own health in terms of proactive measures, in terms of foods.

And in terms of exercises in terms of medicine in some in terms of regular consultancy, regular consultation with the doctors in terms of taking care not care of our own environment food

habits all kinds of. So, this is the person, these personal commitments and responsibilities make it more sustainable.

(Refer Slide Time: 17:23)



- Hence, the only thing we can control is our state of mind and the toxins we put into it, through what we eat.
- **Sustainable Health is :**
 - ✓ A **preventative** approach
 - ✓ A balance of mind, body and spirit
 - ✓ Taking care of what we put into our bodies
 - ✓ Taking natural medicines to maintaining our health and preventing illnesses
 - ✓ Leading and maintaining a **balanced life**, by taking a “middle road” approach.
- **Sustainable Health Principles-**
 - The **10 principles** of Sustainable Health:
 1. Maintain a balanced life, (middle road approach)
 2. Have a healthy diet
 3. Exercise regularly

So, therefore, sustainable health we can define it as yes of course, it is a preventive approach, it is a proactive approach; that means, what are the preventions what are the pro action that we can adopt beforehand before we fall sick. And in the rural sector that is that the people are people fall people are the victims, they fall very often this sick and ill because they do not, they do not take care of their own health, they do not take care for own their own food and nutrition their etcetera.

So, they are not only that they are less educated, but also they are not they are careless. So, in that case we have to educate people regarding the common health services primary health services food and nutrition everything. So, that is why ESD is very much required to educate people, to circulate the to disseminate information and circulate the information about all the not only the diseases, but the general health conditions, how to promote how to be proactive how to be careful about these things.

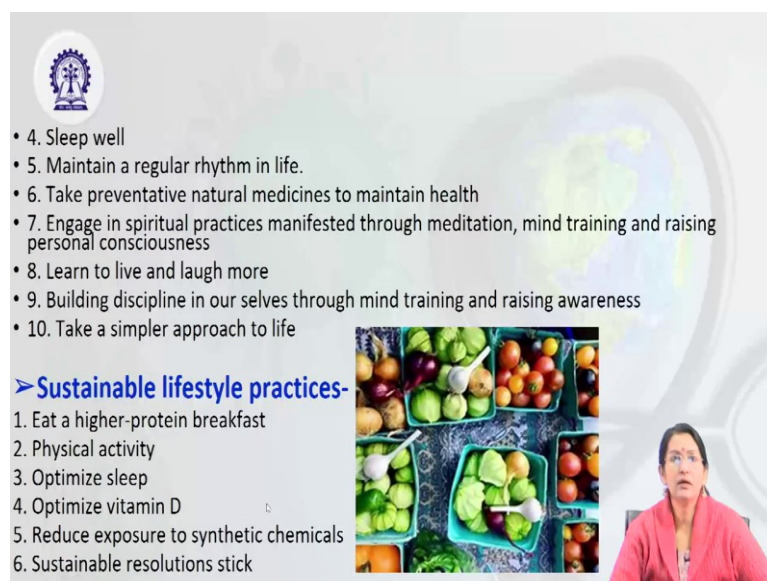
So, again definitely a balanced state of mind, body and spirit. So, in order to maintain the maintain a sustainable health we have to have this balanced state of mind, peace healthy body and the positive spirit. So, and taking care of what we put in our bodies that whatever we take the our all our intakes we should also take in talk about the amount of water, amount of food, amount of nutrition, amount of clean air all kinds of things.


So, natural medicine of maintaining our healthcare like for example, some of the you know mostly used healthy herbal products like turmeric, honey, tulsi and all kinds of you know Ayurvedic products like the Chyawanprash, then all the food values of you know onion, food values of garlic, food values of ginger, all kinds of these herbal products can also we take regularly to maintain our health.

So, therefore, to lead again moreover to lead a balanced life. To moreover how to maintain a balanced life balanced healthy balanced health, balanced life balance lifestyle that is the most important approach towards the sustainable health. And sustainable health has certain principles that is this principle based on the primarily on the balanced life, balanced lifestyle that is maintain a balanced life.

That is the most you can say conducive way, conducive or healthy way or healthy approach or affordable approach strategy you can say the balanced life have a healthy diet exercise regularly whatever we have already discussed right now.

(Refer Slide Time: 20:00)







- 4. Sleep well
- 5. Maintain a regular rhythm in life.
- 6. Take preventative natural medicines to maintain health
- 7. Engage in spiritual practices manifested through meditation, mind training and raising personal consciousness
- 8. Learn to live and laugh more
- 9. Building discipline in our selves through mind training and raising awareness
- 10. Take a simpler approach to life

➤ **Sustainable lifestyle practices-**

1. Eat a higher-protein breakfast
2. Physical activity
3. Optimize sleep
4. Optimize vitamin D
5. Reduce exposure to synthetic chemicals
6. Sustainable resolutions stick



Sleep is also very important factor, regular rhythm in life that is routine and disciplined. And yes of course, we can take the we should take the preventive and natural medicines for good maintaining the good health. Then engage regular engagement in the spiritual practices, meaningful work actually meaningful work meditation, mind training, mindfulness thing, raising the personal consigned consciousness and reflecting reflective thoughts or self-analysis.

Even serving others also you can also make a point that regularly we should not only we take care of ourselves, but also, we care for others or helping others helping out others and service orientation this can also gives us a kind of healthy or positive mindset. So, learn to live and laugh as much as happiness, how can we bring happiness to our life.

So, happiness can also cure most of our, most of our you know mental or we can say chronic disease. Because some of the diseases are psychosomatic like primarily created because of the stress and the mental factors like you know asthma is a psychosomatic disorder. Similarly, these kind of things can be taken care of proactively through bringing happiness through bringing joy and; that means, all kinds of things a positive engagements and socializing and listening to music all kinds of things can also make us happy.

So, that we can also remove, we can also avoid this kind of some chronic diseases. So, building discipline in ourselves. So, discipline is maintaining a regular lifestyle, healthy lifestyle, mind training, raising awareness, regular maintaining the regular nutrition food, healthy nutrition and even work life balance work life balance. So, and having a very simpler approach to life like not so much of fond of fond of this luxurious life, comfortable life or taking this is fast food these kinds of very having a very simpler approach to life with a disciplined lifestyle we can maintain a balanced life.

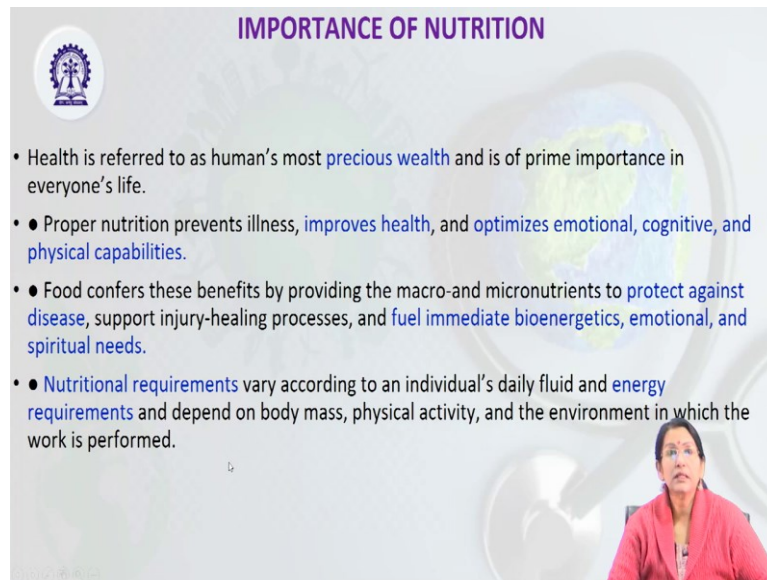
That is not only our not only in our workplace, but at work life balance, but also we have our own health. So, that is a sustainable lifestyle practices here again some of sustainable life style practices, even though all of us we know we can also we can educate people regarding this those who are you know those who are little bit disadvantaged or ignorant, who stays in the rural areas or the remote areas. Like what is the balanced food, which food, which vegetable, which fruit has the what type of nutritional value and when to take what type of foods how the foods and the things are important.

How to; that means, which season again in which season which food to take etcetera. So, its therefore, the high protein breakfast how to maintain the then routine the balanced or nutrition or balanced diet you can say like having the high protein breakfast that is in and physical activities there is very much required and optimize sleep, that is 7 to 8 hours minimum sleep.

Then optimize the vitamin D, vitamin D is from the natural sources from the sunlight as well as from the supplements. Then reduce the exposure to synthetic chemicals not to; that means, avoid to avoid all these kinds of soft drinks, cold drinks all kinds of chemical products and to

and again sustainable resolution stick. How, even if we are approaching towards the solutions how sustainable it can be how; that means, always we should focus on more on the future oriented which will be long term with the long term positive things.

(Refer Slide Time: 23:47)



IMPORTANCE OF NUTRITION

- Health is referred to as human's most **precious wealth** and is of prime importance in everyone's life.
- Proper nutrition prevents illness, **improves health**, and **optimizes emotional, cognitive, and physical capabilities**.
- Food confers these benefits by providing the macro-and micronutrients to **protect against disease**, support injury-healing processes, and **fuel immediate bioenergetics, emotional, and spiritual needs**.
- **Nutritional requirements** vary according to an individual's daily fluid and **energy requirements** and depend on body mass, physical activity, and the environment in which the work is performed.

A small inset video in the bottom right corner shows a woman with dark hair, wearing a red jacket, speaking.

So, therefore, here definitely the nutrition importance of the nutrition comes first for the balanced lifestyle. So, it is referred as the humans most precious wealth, what type of food. So, when we compare ourselves with the with our old generation like our parents and the grandparents how they were having a very good health and they long live etcetera, because of the food they were taking, because of the quality of the food they were taking.

They were taking all kinds of you know desi ghees and milk and all kinds of (Refer Time: 24:20); that means, of vegetables and all healthy habits they were having for. So, therefore, their longevity, then their physical health is was is much more stronger than compared to our right now. So, proper nutritional prevent illness like the proper nutritional nutritions prevents the regular illness and improve the health immunity services.

Especially, our immunity services and again it optimizes our balance our emotional cognitive and physical capabilities. So, with balanced food and regular exercise and regular exercise and with proper engagement in meaningful work either it is your job or at home you are doing. So, now you should not be very over exhausted or you should not you should not give very less attention to yourself.

So, to maintaining a balance both at home as well as in the workplace that can optimize our emotional cognitive and the physical capacities capabilities and the mental health. So, therefore, so even will within the food also, within the food we must also have a watch on how much you know nutritions in terms of calories not only in terms of calories, but also in terms of vitamins and nutritional supplements like the.

So, what are the macro and micro nutrients that is required like for example, using for this pandemic like we how much we do we need to take; that means, we need to need to take extra vitamin C, vitamin D and vitamin B complex. So, what are the; so, these kind of micro nutrients in terms of either from the food or from the medicinal supplements we can take to; that means, to enhance or you know to enhance our immunity system.

So, and to fuel the immediate bios bioenergetics emotional and spiritual needs also. So, we also added we also stick to this both kind of traditional Ayurvedic knowledge, traditional knowledge as well as the required preventive medicines available to maintain that kind of you know to enhance the immunity.

So, the national requirement, nutritional requirements also of course, it varies according to individual's daily fluid, fluid food intake then energy exercises requirements etcetera physical activity depending on the individual's physical activity and the environment where it stays. It varies from individual to individual, but at the same time we have to be very much vigilant about our own health, health status, nutritional intakes and again our work life balance and the balance and our immunity system.

So, for that that is taking that is the taking self care that is the taking self care is the major responsibility and that has to be. So, people has to be educated regarding that also if; that means, your body your health is your priorities, your responsibilities and how every individual every citizen.

Especially, in the rural sector can be should be can be very much careful where very much responsible and committed towards his own you know well being and healthy life and happiness. That is that we have to educate people from time to time so that is also very much important in our society.

(Refer Slide Time: 27:37)



The slide features a university logo in the top left corner. Below it, three bullet points discuss the immune system and nutrition. The first bullet point states that a strong immune system acts as a defense against diseases and protects the body, but the most common cause of immune deficiency worldwide is inadequate nutrition. The second bullet point emphasizes the importance of embracing right foods to achieve a lean and balanced body, citing Myers et al. (2015). The third bullet point notes that to ensure optimal functioning of the human body, an adequate amount of nutrition and physical activity is mandatory, citing Gleeson & Bishop (2000). Below the text, there is a circular diagram titled 'Sustainable Local Food System' with six segments: 'production' (green), 'processing' (orange), 'distribution' (red), 'waste' (purple), 'consumption' (blue), and 'marketing' (yellow). To the right of the diagram is a photograph of a grocery store aisle with two people. In the bottom right corner, there is a video inset showing a woman in a red shirt speaking.

- A **strong immune system** acts as a defense against diseases and protects our body, but the most common cause of immune deficiency worldwide is inadequate nutrition.
- It is important to embrace the **right foods** and know what it entails to achieve a lean and **balanced body** (Myers et.al, 2015).
- To **ensure optimal functioning** of the human body, an adequate amount of nutrition and physical activity is mandatory (Gleeson & Bishop, 2000).

So, yes; we have already discussed the strong immunity system, immune system is very important right kind of food, balanced body then activity, engagement activity and engagement and some kind of personal time for the deep contemplation meditation and spiritual practices, something that is very important to maintain a regular life healthy life and positive life.

So, here again we have to also ensure the optimal functioning of our not only our body. But again whenever we are purchasing some of the this some purchasing the food from the market, from the from the markets we have to very careful about how to take as much as natural herbal things and how to avoid, how to avoid this chemical things and the fast foods and how to avoid the extra sugar, extra fat etcetera all these things.

So, we have to be very vigilant about this nutritional value of the products we take, the products we take, we eat, we drink and how to enhance our immunity system that is most and most important for all of us. Now, I am concluding this here right now, next for next class onwards we will discuss it further.

Thank you.