Objectives:
By the end of this session; the student will be able to:
1. Discuss the common health problems related to nutrition in the community.
2. Recognize the major Anthropometric measures such as Body Mass Index (BMI) & Waist circumference.
3. Define obesity and classify its types at a basic level.
4. State the major health risks of obesity and malnutrition.
5. Evaluate the importance of balancing CHO and lipids in diet.
6. Identify the association of Diabetes mellitus, obesity & dyslipidemia with ischemic heart disease at basic level.

⇒ Students are requested to read the case scenario carefully, prepare answers for the following questions using reference books and websites; and then discuss their answers during SGL session.

Case Scenario:

Mr. X was born in 1990 and he apparently had a normal childhood as he was a playful and active child with a noticeable love for a variety of foods, including sandwiches, potato chips, pizza, and soda, his weight was a little above normal and his pediatrician was concerned after measuring his weight, height, and waist circumference. So he asked Patient X's mother to be attentive to his caloric intake and to assure he remains active. The patient's mother was a bit offended at the description of her son as being "chubby."

Patient X continued to grow and he was considered heavy by his peers since kindergarten; so he was quiet and shy at school and soon found it difficult to make friends. His grades began to decline, and he began to spend more time watching television and playing video games. Snacking on potato chips and soda becomes a source of comfort for Patient X; soon he is consuming 8 cans of soda every day and had developed a big belly. The patient's parents have become concerned but are reassured by family members who attribute the weight gain to a phase or a growth spurt.

As a result of Patient X's decreased activity level, his weight continues to increase. By 12 years of age, he is even more withdrawn from social activities and mainly retreats to his virtual world of video games.

At the age of 24 years old Mr.X weighs 140 kg and in addition to his over-eating habit he started smoking. He works at a desk in some
company. He made some friends at work. Some day they persuaded him to play a football game after work. Although he felt that his knees are weak to bear his weight during running and his movement is significantly slow; but Patient X remembers the years he spent as a withdrawn child and does not want to revert back to being lonely and unsocial; he is going to play the best he can.

An hour into the game, Patient X feels a sharp pain down his left arm. He is sweating profusely and becomes dizzy. He describes the sensation as severe pain in his chest. His friends call emergency medical services, and Patient X is taken to the hospital. His electrocardiogram (ECG) reveals ST segment elevation, indicative of a myocardial infarction. He is admitted to the hospital and undergoes cardiac catheterization and angioplasty. Further testing reveals type 2 diabetes, hyperlipidemia, hypertension, and mild kidney disease.

Patient X takes the news with a good spirit saying that he is still young, only 25 years of age, he has plenty of time to make the needed changes and he promised his parents that he would take better care of his health and would take his doctor's advice seriously.

Questions:

Q1) Was Mr. X a malnourished child? What are the common types of malnutrition in our community?

Q2) What are the measures used to assess/diagnose obesity?

Q3) What is the definition of Obesity? Is there a difference between male and female obesity?

Q4) What are the major health risks related to obesity?

Q5) Was Mr. X taking a healthy diet? If you were Mr. X's physician; what would you advice him regarding his diet and future lifestyle?

Q6) Why did Mr. X get ill, is his illness caused by obesity and unhealthy habits? Discuss the integrated metabolism of CHO, lipids, and proteins.