### Scientific Foundation for Health

Module 5

## Scientific Foundation for Health Module 5.2

#### Content

- 1) Management of chronic illness for better quality of life
- 2) Health and Wellness of Youth- a challenge for upcoming future
- 3) Measuring of health and wellness

### **Unit -1**:Chronic illness

- What is chronic disease/illness?
- Chronic diseases are defined broadly as conditions that last for one year or more and require ongoing medical attention, as well as limit activities of daily living.
- Example: heart disease, cancer, diabetes
- They are also leading drives of the nation's large scale health care costs.

- Based on the latest data from C D C (centre for disease control), 10 most expensive chronic diseases are:
- Cardio vascular diseases
- Smoking related health issues
- Alcohol related health issues
- Diabetes
- Alzheimer's disease

- Cancer
- Obesity
- Arthritis
- Asthma
- Stoke

- At any given time 50% of the population has a chronic condition.
- The medical management of chronic disorders accounts for three quarters nation's health spending excluding nursing home care.
- The chronically sick account for 90% of home care visits
- 83% of prescription drug use
- 80% of the days spent in hospitals

- 66% of doctors visit
- 55% of visits to hospital emergency rooms
- These conditions are not confined to the elderly. More than one third young adults of ages 18 to 44 have at least one chronic disability.
- At time each one of us will hear a physician say that our condition is chronic and cannot be cured. It can be managed.

## Quality of life

- "Quality of life is defined as an individual's perception of their position in life in the context of the culture and value systems, in which they live and in relation to their goals, expectations, and standards".
- (Standard indicators of life: wealth, employment, the environment, physical and mental health, education, recreational and leisure time, social belonging, religious beliefs, safety, security and freedom)

- Simply quality of life means the degree to which an individual is healthy, comfortable, and able to participate in or enjoy life events.
- Quality of life has a wide range of contexts. It includes the field of international development, health care, politics and employment
- Quality of life has several components: Specifically, physical functioning, psychological status, disease or treatment, related symptomatology

- Health related quality of life is an evaluation of quality of life and its relationship with health. In this field quality of life is often regarded in terms of how certain ailment affects a patient on an individual level.
- Until recently quality of life was not considered an issue of psychological importance.

- F or many years it was measured only in terms of length of survival and signs of presence of disease
- In addition there was no consideration of the psychological consequence of illness and treatment.

## Components of quality of life

- Quality of life has several components. Specifically,
- Physical functioning
- Psychological status
- Social functioning
- Disease or treatment

## Assessment of quality of life in chronic illness

- Till now the assessment of the quality of life of chronically ill was based on how much the disease and treatment interferes with the activities of daily living such as –
- Sleeping,
- Eating,
- Going to work and
- Engaging in recreational activities

- For patients with more advanced diseases, such assessments include whether the patient is able to bathe, dress, use toilet, be mobile, be content, and eat without assistance
- Essentially the quality of life assessment gauge the extent to which a patient' normal life activities have been compromised by disease and treatment

# Why we should study quality of life of chronically ill?

- Studying chronically ill patients and their quality of life is important for the following
- Documentation of exactly how illness affects vocational, social, and personal activities. This provides an important basis for interventions designed to improve quality of life.
- Quality of life measures can help pinpoint which problems are likely to emerge for patients with diseases. Example: such measure might indicate that sexual functioning is a problem for a patient. Such information would be helpful in anticipating the intervention that are required

- Quality of life measures also assess the impact of treatments on quality of life of the chronically ill
- Quality of life information can be used to compare therapies and their outcome
- Quality of life information can inform decision makers about care that will maximize long term survival with the highest quality of life possible
- Information enables policy makers to compare the impact of different chronic diseases on health care costs and to assess the cost effectiveness of different interventions

- A chronic health condition is any condition lasting six months or longer. Example: asthma, arthritis, cancer, obesity, diabetes, chronic pain or heart diseases
- Modern day treatments have made provision for people with chronic condition to live longer with diseases that previously led to premature death.

## What causes chronic illness and associate conditions?

 They are caused by a number of different health factors resulting at simultaneously

They take some time to develop

 They last for a long time and often lead to other health problems

# How to maintain better quality of life in the chronically ill?

Chronic conditions are not cured completely.
 So looking after our self about good medical advice, living healthy life style, and having positive attitude help in maintaining better quality of life

### The measures adopted are:

- Finding reliable information about diseases, its treatment and management. This will help the chronically ill patient to feel that he/she in taking positive step and give a feeling of control over their illness
- Understanding the medication. This includes what it is specifically for. It provides special instruction to be followed in taking medicine/ treatment and potential side effects
- Setting the patient's goal- short term goals will give a sense of how the person is progressing

- Developing skills to manage the chronically ill patient's pain and fatigue
- Getting emotional support. Speaking to others who are going through what the patient is going through, and leaning on family and friends when there is need
- Planning for the future

### Pain management

- Taking pain relieving medicine. Medication includes both non-prescription medication and prescription medication
- Under going physical therapies. There are many non-drug treatments. A combination of treatments and therapies (Physio therapy) is some time more effective. Non drug therapies include cognitive behavioral therapy (cognitive behavioral therapy changes how a person thinks and in turn how he feels and behave).

- Physical therapies also are found in stretching exercises, walking and other exercises
- Relaxation and stress management techniques
- Transcutaneous electrical stimulation therapies
- Applying heat packs and cold packs and
- Acupuncture

### Taking care of mental health

- Symptoms of chronic diseases tiredness, aches and pains are not quite often visible. It is not just physical symptoms that affect a chronically ill. They can affect the limits on life styles and living with constant pain, it can impact mentally too.
- Worrying or thinking negatively adds to the patient's anxiety or stress. They can affect the overall health

#### What are the ways to reduce worrying?

- Write down the concerns and the possible consequences even if they are negative
- Find out the information about prognosis
- Talking to a friend, a supporting group or seek specialist help
- Focusing on a variety of things each day

# Good life style choices for better quality of life

- Maintain a healthy life style can help the chronically ill patient to feel well, while living with chronic illness and its condition. This includes eating well, doing as much physical activity as the patient's condition will allow, and getting good rest
- Trying to do some physical activity each day, even if it is only a small amount, can help with managing pain and lift your mood. Speak with the doctor or physiotherapist about exercise that may help.

Sleep is also very important if there is a health condition

### Dealing with multiple health condition

 To achieve this chronically ill person need to deal with a number of health care professionals. The most important thing to remember about seeing multiple healthcare professionals is to let each one know who else the patient are seeing and for what health condition.

# Getting support from others for better quality of life

- Social support can help chronically ill person to maintain a good quality of life.
- When a chronically ill person has a long term adverse health condition the person must plan to catch up with family and friends and inform about their condition and let them know how they can help
- Consider new sources of support such as support groups, clubs, interest group and volunteer opportunities.

# **Unit-2:**Health and wellness of youth: a challenge for upcoming future

- Youth is the time of life when one is young and often means the time between childhood and adulthood.
- It is also defined as "the appearance, freshness, vigor, spirit, etc.,
- Its definitions of a specific age range varies, as youth is not defined chronologically as a stage that can be tied to specific age ranges, nor can its end point be linked to specific activities

- Youth is an experience that may shape an individual's level of dependency, which can be marked in various ways according to different cultural perspectives.
- The United Nations defines youth as persons between the ages of 15 and 25
- Youth is the stage of constructing the selfconcept. The self-concept of youth is influenced by variables such as peers, life style, gender, and culture.

#### Health and wellness

- Health is a state of well-being
- Wellness is the state of living a healthy life styles
- Health refers to physical, mental and social well=being
- Wellness aims to enhance well-being. It can affect physical, mental and social well-being

### Health and wellness in youth

- High levels of health and wellness in youth help them flourish in life as well as act as a protective factor against some of the challenges that may arise during this period.
- Youth with strong mental well-being are able to manage their emotions, enjoy positive relationships with friends and family

## Challenges facing youth

- In may 2014 W H O published a major report called "Health for the world's adolescent."
- The report analyses what is known about adolescents' health
- It includes topic of what promotes or undermines it, gaps in policies and services, and draws together guidance and recommendations

#### **FACTS**

- An estimated 1.3 million adolescents died in 2012, mostly from preventable or treatable causes.
- Road traffic injuries were the leading cause of death in 2012, with some 330 adolescents dying every day.
- Other main causes of adolescent deaths include HIV, suicide, lower respiratory infections and interpersonal violence.
- Globally, there were 49 births per 1000 girls aged 15 to 19, according to 2010 figures.
- Half of all mental health disorders in adulthood appear to start by age 14, but most cases are undetected and untreated

- Around 1 in 6 persons in the world is an adolescent: that is 1.2 billion people aged 10 to 19
- Most are healthy, but there is still significant death, illness and diseases among adolescents. Illnesses can hinder their ability to grow and develop to their full potential. Alcohol or tobacco use, lack of physical activity, unprotected sex and/or exposure to violence can jeopardize not only their current health, but often their health for years to come.

 Promoting healthy practices during adolescence, and taking steps to better protect young people from health risks are critical for the prevention of health problems in adulthood, and for countries' future health and social infrastructure

# Main health issue- Early pregnancy and childbirth

- Complications linked to pregnancy and childbirth are the second cause of death for 15-19-year-old girls globally.
- One of the Millennium Development Goals, is to achieve universal access to reproductive health, for which one of the indicators is the pregnancy rate among the 15 to 19 age group.

#### HIV

- More than 2 million adolescents are living with HIV. Although the overall number of HIVrelated deaths is down 30% since the peak 8 years ago, estimates suggest that HIV deaths among adolescents are rising
- A second goal of the Millennium Development is to halt the spread of HIV/AIDS

### Other infectious diseases

- Improved childhood vaccination has resulted in reducing death and disability from measles
- However diarrhea, lower respiratory tract infections and meningitis are among the top 10 causes of death for 10 to 19 year olds.

#### Mental health

- Depression is the top cause of illness and disability among adolescents and suicide is the third cause of death. Violence, poverty, humiliation and feeling devalued can increase the risk of developing mental health problems.
- Building life skills in children and adolescents and providing them with psychosocial support in schools and other community settings can help promote good mental health. Programmes to help strengthen ties between adolescents and their families are also important. If problems arise, they should be detected and managed by competent and caring health workers.

### Violence

- Violence is a leading cause of death. An estimated 180 adolescents die every day as a result of interpersonal violence. Around 1 of every 3 deaths among adolescent males in the low- and middle-income countries is due to violence
- Globally, some 30% of girls aged 15 to 19 experience violence by a partner.

 Promoting nurturing relationships between parents and children early in life, providing training in life skills, and reducing access to alcohol and firearms can help to prevent violence. Effective and empathetic care for adolescent survivors of violence and ongoing support can help deal with the physical and the psychological consequences

# Alcohol and drugs

 Harmful drinking among adolescents is a major concern in many countries. It reduces self-control and increases risky behaviours, such as unsafe sex. It is a primary cause of injuries (including those due to road traffic accidents), violence (especially by a partner) and premature deaths. It also can lead to health problems in later life and affect life expectancy

 Setting a minimum age for buying and consuming alcohol and regulating how alcoholic drinks are targeted at the younger market are among the strategies for reducing harmful drinking. Drug use among 15 to 19 year olds is also a concern.

## **Injuries**

- Unintentional injuries are a leading cause of death and disability among adolescents. In 2012, some 120 000 adolescents died as a result of road traffic accidents.
- Young drivers need advice on driving safely
- laws that prohibit driving under the influence of alcohol and drugs need to be strictly enforced.
   Blood alcohol levels need to be set lower for teenage drivers.
- Graduated licenses for novice drivers with zerotolerance for drink-driving are recommended

# Malnutrition and obesity

Many boys and girls in developing countries enter adolescence undernourished, making them more vulnerable to disease and early death.

The number of adolescents who are overweight or obese is increasing in both low-and high-income countries.

### Exercise and nutrition

- Available survey data indicate that fewer than 1 in every 4 adolescents meets the recommended guidelines for physical activity – 60 minutes of moderate to vigorous physical activity daily.
- Anemia resulting from a lack of iron affects girls and boys, and is the third cause of years lost to death and disability. Iron and folic acid supplements help to promote health before adolescents become parents.

 Developing healthy eating and exercise habits at this age are foundations for good health in adulthood. Reducing the marketing of foods high in saturated fats, trans-fatty acids, free sugars, or salt and providing access to healthy foods and opportunities to engage in physical activity are important for all but especially children and adolescents.

### Tobacco use

 The vast majority of people using tobacco today began when they were adolescents. Prohibiting the sale of tobacco products to minors and increasing the price of tobacco products through higher taxes, banning tobacco advertising and ensuring smoke-free environments are crucial. Globally, at least 1 in 10 younger adolescents (aged 13 to 15) uses tobacco, although there are areas where this figure is much higher. Cigarette smoking seems to be decreasing among younger adolescents in some high-income countries

# Rights of youth

 The rights of children to survive, grow and develop are enshrined in international legal documents. The Committee on the Rights of the Child (CRC), which oversees the child rights convention, in 2013 published guidelines on the right of children and adolescents to the enjoyment of the highest attainable standard of health

 In 2003, the CRC issued guidelines on states' obligations to recognize the special health and development needs and rights of adolescents and young people. The Convention on the Elimination of Discrimination Against Women (CEDAW) also sets out the rights of women and girls to health and adequate health care.

### **Unit 3**-Health status

A general term for the state of health of an individual, group, or population measured against defined standards

The W H O definition (2009):

The state of health of a person or population assessed with reference to morbidity, impairments, anthropological measurements, mortality, and indicators of functional status and quality of life.

The WHO health indicators provide internationally accepted standards for various aspects of health status

WHO guides health policy in its Member
States toward priority health problems, the
use of solutions known to them, and relevant
directions for problem-orientated research to
improve the effectiveness and efficiency of
investment for health development.

## Types of health status

- -includes
  - 1) functional health
  - 2) disability days
  - 3) activity limitation
  - 4) health expectancy and
  - 5) disability free life expectancy

What is the best predictor of health status?

Earlier rising income and subsequent improved standards of living were thought to be the most important factors contributing to a long and healthy life

New research has shown that the level of education a person has is a much better predictor of life expectancy

### Measures of health status

- An individual's health status is usually measured by a health professional
- Measurement of population health status is carried using statistics and data presented as a set of measurement or indicators. It includes:
- Life expectancy; health adjusted life expectancy; morbidity; under-five mortality; burden of disease; disability adjusted life year; incidence; and prevalence

### Wealth Status

What Is Wealth?

Wealth measures the value of all the assets of worth owned by a person, community, company, or country. Wealth is determined by taking the total market value of all physical and intangible assets owned, then subtracting all debts. Essentially, wealth is the accumulation of scarce resources.

- Specific people, organizations, and nations are said to be wealthy when they are able to accumulate many valuable resources or goods.
- Wealth can be contrasted to income in that wealth is a stock and income is a flow, and it can be seen in either absolute or relative terms.

#### **Understanding Wealth**

- Wealth can be expressed in a variety of ways. In a purely material sense, wealth consists of all the real resources under one's control. Financially, net worth is the most common expression of wealth.
- Definitions and measures of wealth have been different over time among societies. In modern society, money is the most common means of measuring wealth. Measuring wealth in terms of money is an example of money's function as a unit of account.

#### How to Measure Wealth

 Measuring wealth in terms of money overcomes the problem of evaluating wealth in the form of different kinds of goods. These values can then be added or subtracted together. This, in turn, permits the convenient use of net worth as a measure of wealth. Net worth is equal to assets minus liabilities. For businesses, net worth is also known as shareholders' equity or book value. In common sense terms, net worth expresses wealth as all the real resources under one's control, excluding those that ultimately belong to someone else.

 Research has consistently shown that people's perception of their own wellbeing and happiness depends much more on their estimates of wealth relative to other people than on absolute wealth. This is also part of why the concept of wealth is usually applied only to scarce economic goods; goods that are abundant and free for everyone provide no basis for relative comparisons across individuals.

#### Reference:

- 1. Health Psychology 6<sup>th</sup> edn. Shelly E. Taylor. McGraw-Hill Publishing company Lts.
- Health Psychology. (2007) M. Robin Dimalleo. Leslie. R. Martin. Pearson Education. Darling Kindersley (India)
- 3. Health Psychology 2<sup>nd</sup> Edn. David F. Marks, Michael Murray; Driam Evans; Carla Willig; C. Woodall; Catherin M.Sykes. Sage publication

- 4. Health Psychology Bio Psycho Social Factors in Health and Illness. Larry C. Barnard; Edward Krupat. Harcourt Brace College {ublishers
- Centre for Disease Control and Prevention (CDC) report
- 6. Pallipedia.org
- 7. Action health inc.org.