

المحاضرة الأولى

Introduction to Community Health Nursing

❖ THE CONCEPT OF COMMUNITY :

- ❑ A community is a collection of people who share some important feature of their lives.**

- sharing common interests (eg, a community of farmers),**
- living under the same laws and regulations (eg, a prison community).**
- The function of any community includes its members' collective sense of belonging and their shared identity, values, norms, communication, and common interests and concerns.**
- Vulnerable: populations are groups and communities at a higher risk for poor health as a result of the barriers they experience to social, economic, political and environmental resources, as well as limitations due to illness or disability**

Although many believe that health and illness are individual issues, evidence indicates that they also are community issues. The spread of the HIV pandemic, nationally and internationally, is a dramatic and tragic case in point So , Communities can influence the spread of disease, provide barriers to protect members from health hazards, organize ways to combat outbreaks of infectious disease, and promote practices that contribute to individual and collective health.

- ❑ Many different professionals work in community health to form a complex team**
- ✓ The city planner designing**

- ✓ **The social worker**
- ✓ **The physician**
- ✓ **And other**
- **Public health is the science and art of preventing disease, prolonging life, and promoting health and efficiency through organized community efforts for the sanitation of the environment, the control of communicable infections, the education of the individual in personal hygiene, the organization of medical and nursing services for the early diagnosis and preventive treatment of disease, and the development of the social machinery to insure everyone a standard of living adequate for the maintenance of health, so organizing these benefits as to enable every citizen to realize his birthright of health and longevity.**
- **Community health, as a field of practice, seeks to provide organizational structure, a broad set of resources, and the collaborative activities needed to accomplish the goal of an optimally healthy community.**

- **Community health nursing is a specialized practice. It combines all of the basic elements of professional clinical nursing with public health and community practice.**
- **CHN is a synthesis of nursing practice and public health practice applied to promoting and preserving the health of populations.**
- **Community based is define as nurse provide sick care in community settings.**
- **Community focused: bringing of nursing knowledge and expertise to community health nursing.**

- ❑ One of the challenges community health practice faces is to remain responsive to the community's health needs. As a result, its structure is complex; numerous health services and programs are currently available or will be developed.
- ❑ Examples include health education, family planning, accident prevention, environmental protection, immunization, nutrition, early periodic screening and developmental testing, school programs, mental health services, occupational health programs, and the care of vulnerable populations.

❖ **Populations and Aggregates:**

- ❑ population refers to all of the people occupying an area, or to all of those who share one or population may more characteristics.
- ❑ A population also may be defined by common qualities or characteristics, the common characteristic might be any thing that thought to relate to health such as age, sex, race, social class etc

Aggregate; are people who don't have the relatedness necessary to constitute an interpersonal group buy who have one or more characteristics in common

Example:

- **Aggregate can be identified by virtue of setting(those enrolled in a well-baby clinic**
- **Demographic characteristics (women)**
- **Health status (smokers, hypertension)**

❖ THE CONCEPT OF HEALTH

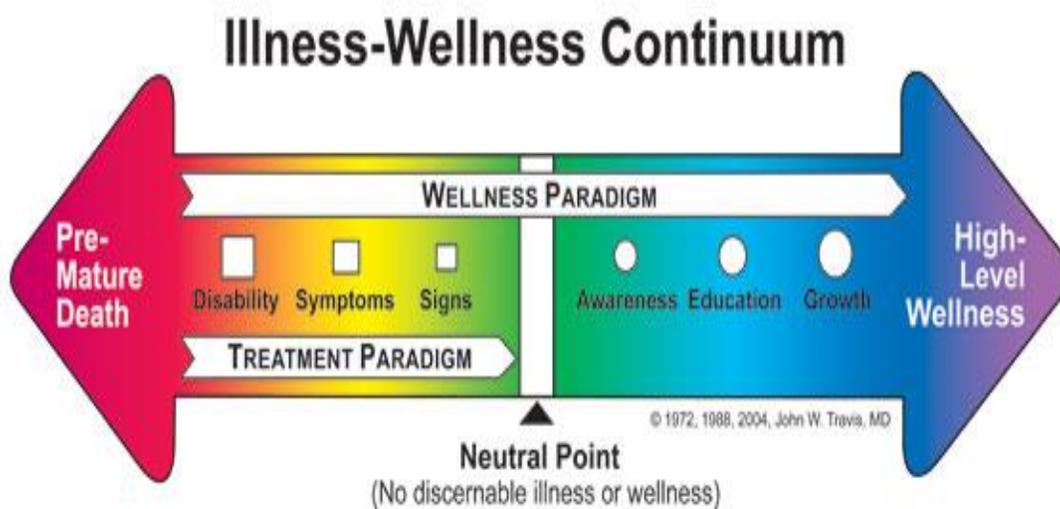
- ❑ **Wellness:** Is the process of moving toward integrating human functioning and maximizing potential. can be measured in terms of quality of life.
- ❑ **Well-being:** a state of positive health or a person's perception concerning positive health.
- ❑ **illness** is a state of being relatively unhealthy. There are many levels and degrees of wellness and illness, Because health involves a range of degrees from optimal health at one end to total disability or death at other.

- High level wellness.(Optimal Health)

- Good health. - Normal health - Illness. - Critical illness.

- Total disability or Death.

❖ The Health Continuum: Wellness–Illness



❖ OBJECTIVES OF COMMUNITY HEALTH NURSING:-

1. To increase capability of individuals, families, groups and community to deal with their own health and nursing problems
2. To strengthen community resources.
3. To control and counteract environment.
4. To prevent and control communicable and non communicable diseases.
5. To provide specialized services for mothers, children, adults, workers, elderly handicapped and eligible couple etc.
6. To conduct research and contribute to the further refinement and improvement of community health nursing practice
7. To supervise, guide and help health personnel in carrying out function effectively.
8. To participate in preparing health personnel to function in community for community health care services.

❖ Philosophy Of Community Health Nursing:

Philosophy of community health nursing is community- based nursing is a philosophy of care that is characterized by collaboration, continuity of care, client and family **responsibility** for self-care, and preventive health care. Community-based nursing focuses on an individual and is family-centred in orientation, community that provide (disease prevention, health protection, and maintenance, and health promotion. so, the community health nursing called imperial for others nursing field.

following ideas and beliefs:

- 1.Philosophy of individual's right of being healthy.

2. Philosophy of working together under a competent leader for the common good.
3. Philosophy that people in the community have potential for continued development and are capable of dealing with their own problems if educated and helped.
4. Philosophy of socialism: health is believed to be one of the rights of all human beings nationally and internationally.

❖ COMPONENTS OF COMMUNITY HEALTH PRACTICE

These components are

- (1) Promotion of health,**
- (2) prevention of health problems,**
- (3) treatment of disorders,**
- (4) Rehabilitation**
- (5) Evaluation**
- (6) Research**

❖ CHARACTERISTICS OF COMMUNITY HEALTH NURSING

Eight characteristics of community health nursing are particularly salient to the practice of this specialty:

- (1) it is a field of nursing;**
- (2) it combines public health with nursing;**
- (3) It is population focused;**
- (4) It emphasizes prevention, health promotion, and wellness;**
- (5) It uses aggregate measurement and analysis;**
- (6) It uses principles of organizational theory; and**
- (7) It involves interprofessional collaboration..**

❖ **Principles of Community Health Nursing (CHN):**

1. The recognized need of individuals, families and communities :
primary purpose is to further apply public health measures within the framework of the total CHN effort.

2. Knowledge and understanding of the objectives and policies of the agency facilities goal achievement.:

3. CHN considers the family as the unit of service. :

level of functioning is influenced by the degree to which it can deal with its own problems.

4. CHN integrated health education and counseling as vital parts of functions.

These encourage and support community efforts in the discussion of issues to improve the people's health.

5. Periodic and continuing evaluation provides the means for assessing the degree to which CHN goals and objectives are being attained.

Clients are involved in the appraisal of their health program through consultations, observations and accurate.

6. Continuing staff education program quality services to client and are essential to upgrade and maintain sound nursing practices in their setting.

Professional interest and needs of Community Health Nurses are considered in planning staff development programs of the agency.

7. Maintenance of accurate records is a vital responsibility of community as these are utilized in studies and researches and as legal documents.

❖ Scope community health nursing

1. Home care
2. Nursing care
3. MCH & family planning
4. School health nursing
5. Mental health nursing
6. Rehabilitation services
7. Geriatric health nursing

❖ Community health nurses have seven major role settings for CHN

Practice are examined.

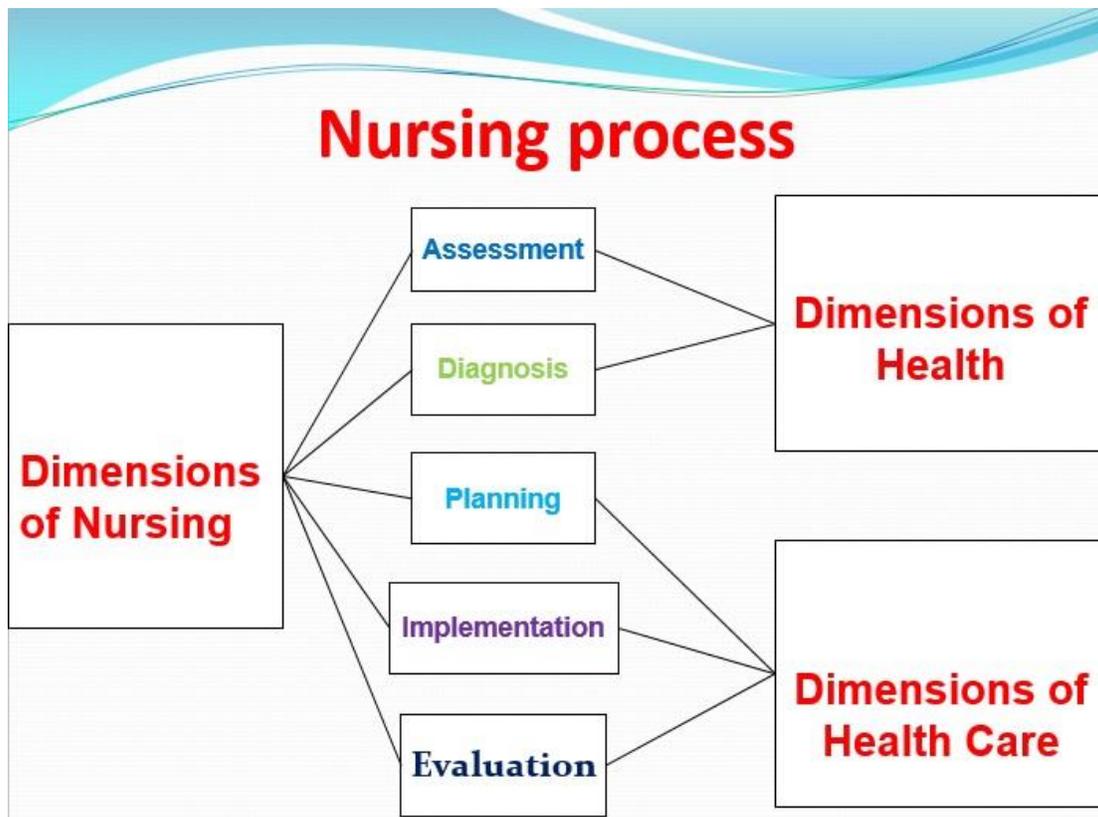
The seven major roles are:

- **Clinician:** The community health nurse provides care along the entire range of the wellness-illness continuum; however, promotion of health and prevention of illness are emphasized. Skills in observation, listening, communication, counselling, and physical care are important for the community health nurse.
- **Educator:** As educators, nurses seek to facilitate client learning on a broad range of topics. They may act as consultants to individuals or groups, hold formal classes, or share information informally with clients or nurse who teaches and prepares [licensed practical nurses](#) (LPN) and [registered nurses](#) (RN) for entry into practice positions
- **Manager:** given the opportunity to acquire the operational, financial, and management skills essential to their success – and the success of their organization.

- **Advocate:** community health nurse as advocate is to help clients find out what services are available, which ones they are entitled to, and how to obtain these services. A second goal is to influence change and make the system more relevant and responsible to clients' needs.
- **Collaborator:** Collaboration with clients, other nurses, physicians, social workers, physical therapists, nutritionists, attorneys, secretaries, and other colleagues is part of the role of the community health nurse leader
- **Researcher:** systematic investigation, collection, and analysis of data to enhance community health practice Research in community health
- **CHN As a leader:** the community health nurse directs, influences, or persuades others to effect change that will positively affect people's health

المحاضرة الثانية

Dimensions of Community Health Nursing



Dimensions of Health

The dimension consist of six categories of factors that can be used to organize health assessment

1-Biophysical dimension:

Includes factors related to human biology that influence health. These factors may be related to age and development level, genetic inheritance, and physiological function

2-Psychological dimension:

Internal and external psychological environments. Depression and low self-esteem are two factors in ones Internal psychological environment that contribute to variety of health problems, including suicide, substance abuse, family violence and obesity. External psychological factors can also influence the development of health problems.

3-Physical environment dimension:

The physical environment consists of weather, geographic locate, soil composition, temperature and humidity, and hazards posed by poor housing and unsafe working condition. Additional elements of physical environment that effect health include light and heat, exposure to pathogens, allergens, radiation, and noise.

4-Socio-cultural dimension:

Consists of those factors within the social environment that influence health, either positively or negatively. The element of the social structure such as employment, economics, politics, ethics, and occupation.

5-Behavioral dimension:

Consists of personal behaviors that either promote or impair health. Health related behaviors include dietary patterns, recreation and exercise, substance use and abuse, sexual activity, and use of protective measure.

6- Health system dimension:

The way in which health care services are organized and their availability, accessibility, affordability, appropriateness, adequacy, acceptability, and use influence the health of individual clients and population groups

Dimensions of Health Care

Focused on the Prevention. Actions aimed at eradicating, eliminating or minimizing the impact of disease and disability.

1-Primordial prevention:

Primordial prevention consists of actions and measures that inhibit the emergence of risk factors in the form of environmental, economic, social, and behavioral conditions and cultural patterns of living etc.

It is the prevention of the emergence or development of risk factors in countries or population groups in which they have not yet appeared

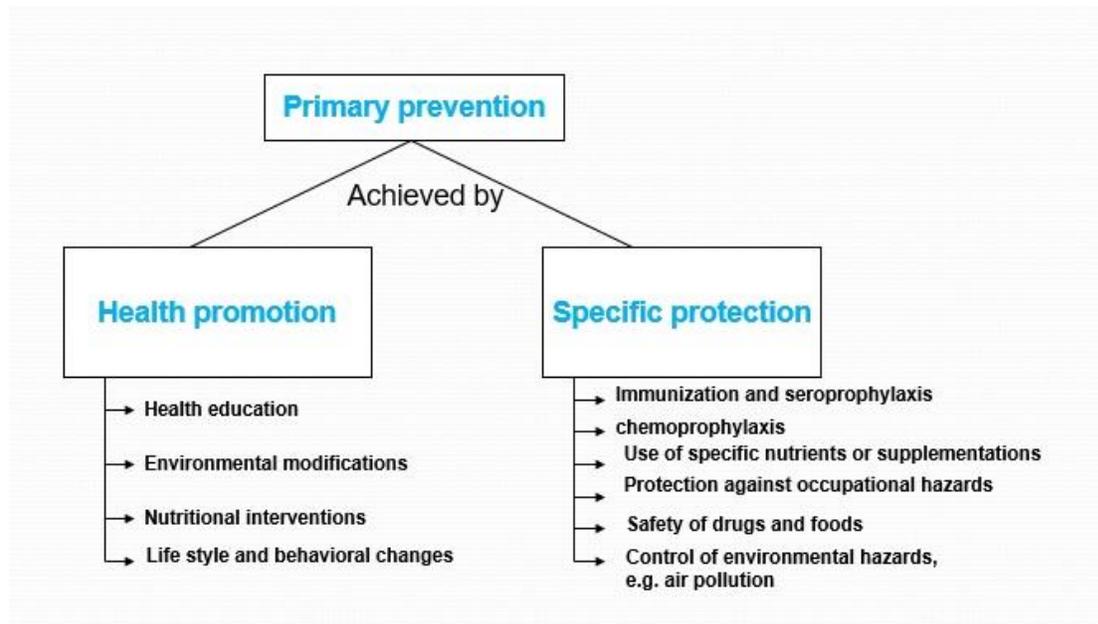
For example, many adult health problems (e.g., obesity, hypertension) have their early origins in childhood, because this is the time when lifestyles are formed (for example, smoking, eating patterns, physical exercise).

In primordial prevention, efforts are directed towards discouraging children from adopting harmful lifestyles

The main intervention in primordial prevention is through individual and mass education

2-Primary prevention:

Primary prevention may be accomplished by measures of “**Health promotion**” and “**specific protection**”



3-Secondary prevention

It is defined as “ action which halts the progress of a disease at its incipient stage and prevents complications.”

The specific interventions are: early diagnosis (e.g. screening tests, and case finding programs....) and adequate treatment.

4-Tertiary prevention:

It is defined as “all the measures available to reduce or limit impairments and disabilities, and to promote the patients’ adjustment to irremediable conditions.”

Dimensions of Nursing

1-Cognitive dimension:

The knowledge needed for the nurse to identify client health needs and to plan and implement care to meet those needs

2-Interpersonal dimension:

Includes effective elements and interaction skill. Affective elements consist of attitudes and values of nurse that influence his or her ability to practice affectivity with variety of different people

3-Ethical dimension:

The nurse act in accord with moral and ethical principles. Willingness to advocate for clients is another element of the ethical dimension.

4-Skills dimension :

A- manipulative skills include the ability to perform such activities as giving immunization, providing tuberculin skin tests and physical assessment and conducting hearing examination

B-intellectual skills include the capacity for critical thinking as well as the ability to examine data and draw influences .

5-Process dimension:

Nurses employ knowledge, attitudes, and skill in the application of several specific process when providing care to individuals, family, and population group (the nursing process) other processes use by nurses in their practice are the epidemiologic process, the health education process, the home visit process, and the case management process. CHNs also use change, leadership, group, and political processes in their care of clients

6-Reflective dimension:

The nurses reflection their care through theory development, research, and evaluation

المحاضرة الثالثة

Community Assessment

It is the process by which data are compiled regarding a community's health status and resources and from which nursing diagnoses are derived.

Population or Community health assessment can be approached from two perspectives:

1. **A need assessment approach:** focuses on community health problems .
2. **A population assessment approach:** on the other hand, provides an overall picture of community health status, including community strengths and assets as well as needs and needs or problems.

❖ **Functions community health assessment :**

1. Identifying problems.
2. Risk factors.
3. Needs as perceived by its members.
4. Determining its interests and priorities related to health.
5. Describing population lifestyles.
6. Delineating community strengths and resources.
7. Facilitates decision making, particularly with respect to resources allocation.
8. Provide skill training for residents.
9. Facilitates group mobilization.
10. Enables consciousness raising.

❖ **Principles of Community Health Assessment:**

1. Multiple sources of information should be sought to provide an overall picture of community health rather than the view of one segment of the population.
2. Assessment should address the needs of specific subgroups within the population (e.g., vulnerable populations such as the elderly or members of diverse cultural groups).
3. Assessment should consider all potential stakeholders in the population. Stakeholders are those concerned with the outcome of the assessment (e.g., community residents, officials, health care providers, funders).
4. Assessment should identify population assets as well as needs and problems.
5. Assessment should be conducted or directed by persons with experience in population health assessment.

❖ **Data Sources for Population Health Assessment:**

Assessment data may be either **quantitative** or **qualitative**.

1. **Quantitative data** reflect numbers of people, characteristics, or events within the population. (number of people in specific age or ethnic groups and rates of specific diseases and causes of death within the population).
2. **Qualitative data** focus on perceptions of health, attitudes, and health concerns as voiced by members of the population (community

members' identification of adolescent pregnancy, substance abuse).

❖ **Types of Community Needs Assessment**

Assessment for nurses means collecting and evaluating information about a community's health status to discover existing or potential needs and assets as a basis for planning future action. Assessment involves two major activities. **The first** is collecting of pertinent data, and **the second** is analysis and interpretation of data.

1. Community needs assessment I:

This type of needs assessment seeks to evaluate the strengths and weaknesses within a community and create or improve services based on the identified weaknesses. Organizing this type of needs assessment is primarily structured around how to best obtain information, opinions, and input from the community and then what to do with that information.

2. Community needs assessment II :

This type of needs assessment is constructed around a known problem or potential problem facing the community for example, disaster preparedness, how to address an increase in violent crime etc.

3. Community needs assessment III:

This final type of needs assessment is based within an organization which either serves the community at large, is currently addressing a need within the community, or is dedicated to an under-served population within the

community. This type of needs assessment centers around improving the efficiency or effectiveness of such organizations.

❖ **Type of Community Health Assessment**

1. Familiarization or Windshield Survey:

It involves studying data already available on a community, then gathering a certain amount of firsthand data in order to gain a working knowledge of the community. Nurses drive (or walk) around the community of interest; find health, social, and governmental services; obtain literature.

2. Problem-Oriented Assessment:

It begins with a single and assesses the community in terms of that problem.

3. Community Subsystem Assessment:

In community subsystem assessment, the CHN focuses on a single dimension of community life (e.g., the nurse might decide to survey churches and religious organizations to discover their roles in the community).

4. Comprehensive Assessment:

It seeks to discover all relevant community health information. It begins with a review of existing studies and all the data presently available on the community .

A survey compiles all the demographic information on the population, such as its size, density, and composition.

❖ **Methods Community Assessment**

1. Surveys

A survey is an assessment method in which a series of questions is used to collect data for analysis of specific group or area. To plan and conduct community health surveys, the goal should be to determine the variables (selected environmental, socio-economic, and behavioral conditions or needs) that affect a community ability to control disease and promote wellness.

2. Descriptive Epidemiologic Studies

It examines the amount and distribution of a disease or health condition in a population

by person (Who is affected?),

by place (Where does the condition occur?),

by time (When do the cases occur?).

They are useful for suggesting which individuals are at greatest risk and where and when the condition might occur. They are useful for health planning purposes.

3. Community Forums or Town Hall Meetings:

It is a qualitative assessment method designed to obtain community opinions.

4. Focus Group:

It is similar to the community forum or town hall meeting in that it is designed to obtain grassroots opinion.

❖ **Sources of Community Data:**

Data sources can be

1. primary :Community members, including formal leaders, informal leaders, and community members, can frequently offer the most accurate insights and comprehensive information.

2. Secondary

People who know the community well and the records; examples are health team members, client records, community health (vital) statistics, census bureau data, reference books, research reports, and community health nurses.

3. International Sources:

World Health Organization (WHO) and its six regional offices and health organizations.

4. National Sources :

المحاضرة الرابعة

Primary Health Care

What is Primary Health Care?

Primary Health Care is the first level of contact with the health system to promote health, prevent illness, care for common illnesses, and manage ongoing health problems.

The Alma-Ata Conference defined PHC as follows: - "Primary health care is essential health care based on practical, scientifically sound, and socially acceptable methods and technology made universally accessible to individuals and families in the community through their full participation and at a cost the community & country can afford to maintain at every stage of their development in the spirit of self-determination”.

Principles of primary health care:

1.PHC services must have the following characteristic

Accessibility, Availability, Affordability and Acceptability of Health Services.

2.Equitable distribution

Health services must be shared equally by all people irrespective of their ability to pay, (rich or poor, urban or rural).

3.Community participation

Involvement of individuals, families, and communities in promotion of their own health and welfare. Meaningful involvement of the community in the planning, implementation and maintenance of health services.

4. Intersectoral coordination

Primary health care involves in addition to the health sector, all related sectors, in particular agriculture, animal husbandry, food industry, education, housing, public works, communication and other sectors. An important element of intersectoral approach is planning - planning with other sectors to avoid unnecessary duplication of activities.

5. Appropriate technology

Appropriate technology is technology that is adaptable to local needs, acceptable to those who apply it and those for whom it is used, and that can be maintained by the people themselves.

Eight Essential Components of PHC Services

1. Health Education

Health education is the first, and one of the most essential, component of primary health care. By educating the public on the prevention and control of health problems, and encouraging

participation, the World Health Organization works to keep disease from spreading on a personal level.

2. Promotion of food supply and proper nutrition.

Nutrition is another essential component of health care. WHO works to prevent malnutrition and starvation and to prevent many diseases

2. Supply of adequate water and sanitation.

A supply of clean, safe drinking water, and basic sanitation measures regarding trash, sewage and water cleanliness can significantly improve the health of a population, reducing and even eliminating many preventable diseases.

4. Maternal and child health care, including family planning.

Ensuring comprehensive and adequate health care to children and to mothers, is another essential element of primary health care. By caring for those who are at the greatest risk of health problems, WHO helps future generations have a chance to thrive and contribute to globally.

5. Immunization against the major infectious diseases.

By administering global immunizations, WHO works to prevent the major infectious diseases.

6. Prevention and control of locally endemic diseases.

Prevention and control of local diseases is critical to promoting primary health care in a population. Many diseases vary based on location. Taking these diseases into account and initiating measures to prevent them are key factors in efforts to reduce infection rates.

7. Appropriate treatment of common diseases and injuries.

Another important component of primary health care is access to appropriate medical care for the treatment of diseases and injuries.

8. Provision of essential drugs and basic laboratory services.

By providing essential drugs to those who need them, such as antibiotics to those with infections, caregivers can help prevent disease from escalating. This makes the community safer, as there is less chance for diseases to be passed along.

Role of Community health nursing in PHC services

Community health nurses work to improve the health and well-being of the communities they serve by educating them about illness, disease prevention, safe health practices, and how to obtain health care services. They also facilitate communication between people, their families, and the medical community in order to improve health outcomes.

Community health nurses are instrumental in creating programs that allow communities to become healthier and often provide treatment for poor, culturally diverse, and uninsured populations. Their work may include performing free health care screenings, vaccinations, and other forms of preventative care at reduced costs.

المحاضرة الخامسة

Family health services

Introduction

Family health care nursing is an art and a science that has evolved over the last 20 years as a way of thinking about and working with families. Family nursing comprises a philosophy and a way of interacting with clients that affects how nurses collect information, intervenes with patients, advocate for patients, and approach spiritual care with families.

Definitions:

Family: The Family defines “family as the basic unit of society” Or "Family is the biological social unit composed of husband, wife and children".

Family health: a condition including the promotion and maintenance of physical, mental, spiritual, and social health for the family unit and for individual family members .

• Types of Families

1.Nuclear family: consists of husband, wife and perhaps one or more children.

2.Extended family: includes members of the nuclear family and other relatives, aunts, uncles, grandparents and cousins.

3.Blended families: are formed when parents bring unrelated children from prior marriages into a new family.

4.Single parent families: are formed when one parent leaves the nuclear family because of divorce or death.

5.Adoptive family: consists of a parent or parents and one or more adopted children.

6.Foster family: the temporary placement of children in the homes of adults who are not related to them.

- **Family Life Cycle**

I. Families are not a constant. II. They are ever changing

Having six phase:

Phases of family life cycle	Events Characterizing	
	Beginning of phase	End of phase
Formation	Marriage	Birth of 1 st child
Extension	Birth of 1 st child	Birth of last child
Complete Ext.	Birth of last child	1 st child leaves home
Contraction	1 st child leaves home	Last child leaves home
Complete Contra.	Last child leaves..	1 st spouse dies
Dissolution	1 st spouse dies	Death of survivor

- **characteristics of the Family**

- Every family is a small social system.
- Every family has its own cultural values and rules.
- Every family has structure.
- Every family has certain basic functions.
- Every family moves through stages in its life cycle.

- **Functions of the Family**

1.Providing Affection – Give members affection and emotional support.

2.Providing Security and Acceptance – meet their members physical needs by providing food, shelter, clothing, health care, secure environment, and equips them with skills necessary to cope with the outside world.

3.Instilling Identity and Satisfaction – give their members a sense of social and personal identity.

4.Promoting Affiliation and Companionship – give members a sense of belonging throughout life. Provides its members with affiliation and fellowship.

5. Providing Socialization – families transmit their culture, values, attitudes, goals, behavior patterns to their members. Members, socialized into a way of life that reflects and preserves the family culture to the next generation.

- **Roles of the family**

1. Child care: involves provision of physical and emotional care.

Pattern:

- Feeding,
- Hygiene
- Clothing

2. Child socialization: It encompasses the process and activities in the family that contribute to the development of the child's social and mental capacities, Pattern:

- Values
- Beliefs
- Personality formation:
 - To withstand
 - Stress and strain

3.Provider role: include production of goods and services needed.

Pattern:

- Sick
- Pregnancy
- Handicapped

4.Therapeutic role: for assisting the family member to cope with health problems Illness. Pattern:

- ❖ Injuries
- ❖ Anxiety
- ❖ Lose
- ❖ Mental illness
- ❖ Hypertension
- ❖ Ulcer
- ❖ Diabetes and
- ❖ Addiction

5. Housekeeper role: It involves preparing and maintaining the goods and services for the family use.

6. Recreational role: to providing recreation for the family members.

○ **Determinants of family health**

- Living and working conditions
- Physical environment,
- Psycho-social environment
- Education and economic factors
- Health practices
- Cultural factors
- Age

○ **Family Health Assessment**

Certain basic information is needed to determine a family's health status and design appropriate nursing intervention.

- Family Demographics
- Physical environment data
- Psychological and spiritual environment
- Family function, structure and roles
- Family values and beliefs (cultural Patterns)
- Family health behavior

○ **Role of Community Health Nursing**

Nurses help families in the following ways:

- (1) Providing direct care,
- (2) Removing barriers to needed services
- (3) Improving the capacity of the family to act on its own behalf and assume responsibility.

One of the important aspects of working with the family is the nurse-family relationship, which is an intervention in and of itself. The nurse is responsible for helping the family implement the plan of care. The nurse can assume the role of teacher, counselor, advocate, coordinator, and evaluator in helping the family to implement the plan of the care.

المحاضرة السادسة

Maternal and child health

. Maternal and child health:

- MCH definition:
 - Risk factors.
 - Objectives of MCH care.
 - Types of MCH Services.
 - Family planning.

Maternal Care: is the health of women during **pregnancy, childbirth, and the postpartum period**. It encompasses the health care dimensions of family planning, preconception, prenatal, and postnatal care.

Pregnancy, also known as gestation, is the time during which one or more offspring develops inside a woman. A multiple pregnancy involves more than one offspring, such as with twins....

Pregnancy is divided into three trimesters, each lasting for approximately 3 months.

Number of visits during pregnancy

- monthly visits during the first two **trimesters** (from the 1st week to the 28th week)
- fortnightly visits from the 28th week to the 36th week of pregnancy
- weekly visits after 36th week to the delivery, from the 38th week to the 42nd week

What are some factors that make a pregnancy high risk?

1.Existing Health conditions.

.Chronic disease. Such as , hypertension Pregnancy-related high blood pressure (called gestational hypertension), diabetes (called gestational diabetes) , kidney disease, thyroid disease, obesity, and anemia (lack of healthy red blood cells)

2. Age..... First-time pregnancy after age 35 years and pregnancy before age 20 years.

3.Lifestyle Factors.....

Alcohol use. Drinking alcohol during pregnancy can increase the baby's risk for fetal alcohol spectrum disorders (FASDs), sudden infant death syndrome, and other problems.

Tobacco use. Smoking during pregnancy puts the fetus at risk for preterm birth, certain birth defects, and sudden infant death syndrome (SIDS).

Drug use. Research shows that smoking marijuana and taking drugs during pregnancy can also harm the fetus and affect infant health.

4.Conditions of pregnancy.....

Multiple gestation. Pregnancy with twins, triplets, or more fetuses, called multiple gestation, increases the risk of infants being born prematurely (before 37 weeks of pregnancy).

[Gestational diabetes.](#) Gestational diabetes occurs when a woman who didn't have diabetes before develops diabetes when she is pregnant.

Preeclampsia and eclampsia. Preeclampsia is a sudden increase in a pregnant woman's blood pressure after the 20th week of pregnancy. It can affect the mother's kidneys, liver, and brain

Objectives of MCH care:

1. Reduce maternal mortality and morbidity
2. Reduce per natal and neonatal mortality and morbidity
3. Regulate fertility so as to have wanted and healthy children when desired
4. provide basic maternal and child health care to all mothers and children
5. Promot and protect health of mother
6. Promot and protect physical growth and psycho-social development of children

- Types of MCH Services

Maternal health is the **health of women during pregnancy, childbirth and the postpartum period** and maternal health care services are antenatal care (ANC), delivery care and postnatal care (PNC) services

Perinatal Care

The care of women and a fetus or newborn given before, during, and after delivery from the 28th week of gestation through the 21 day after delivery.

I: Prenatal care, also known as antenatal care, is a type of preventive healthcare

It is provided in the form of medical checkups, consisting of recommendations on managing a healthy lifestyle and the provision of

medical information such as maternal physiological changes in pregnancy, biological changes, and prenatal nutrition including prenatal vitamins, which prevents potential health problems throughout the course of the pregnancy and promotes the mother and child's health alike

At the initial antenatal care visit and with the aid of a special booking checklist the pregnant women become classified into either normal risk or high risk

Physical examinations generally consist of:

- Collection of (mother's) medical history
- Checking (mother's) blood pressure
- Mother's height and weight
- Pelvic exam
- Obstetric ultrasounds are most commonly performed during the second trimester at approximately week 20. Ultrasounds are considered relatively safe and have been used for over 35 years for monitoring pregnancy. Among other things, ultrasounds are used to:

- Diagnose pregnancy (uncommon)
- Check for multiple fetuses
- Assess possible risks to the mother (e.g., miscarriage, blighted ovum, ectopic pregnancy, or a molar pregnancy condition)
- Check for fetal malformation (e.g., club foot, spina bifida, cleft palate, clenched fists)
- Determine if an intrauterine growth retardation condition exists

- Note the development of fetal body parts (e.g., heart, brain, liver, stomach, skull, other bones)
- Check the amniotic fluid and umbilical cord for possible problems
- Determine due date (based on measurements and relative developmental progress)

II: Childbirth, also known as **labour and delivery**, is the ending of [pregnancy](#) where one or more [babies](#) leaves the [uterus](#) by passing through the [vagina](#) or by [Caesarean section](#)

III: The postpartum (or postnatal) period begins immediately after childbirth as the mother's body, including hormone levels and uterus size, returns to a non-pregnant state. The terms puerperium, puerperal period, or immediate postpartum period are commonly used to refer to the first six weeks following childbirth

Infant caring in the acute phase

Within about 10 seconds the infant takes its first breath and the caregiver places the baby on the mother's chest.

The infant's condition is evaluated using the **Apgar** scale.

The Apgar score is determined by evaluating the newborn baby on five criteria which are summarized using words chosen to form an acronym (**Appearance, Pulse, Grimace, Activity, Respiration**).

Maternal-infant postpartum evaluation

recognizes the postpartum period (the "**fourth trimester**") as critical for women and infants. as of 2018, recommends that postpartum care be an ongoing process. They recommend that all women have contact (either in

person or by phone) with their obstetric provider **within the first three weeks postpartum** to address acute issues, with subsequent care as needed. A more comprehensive postpartum visit should be done at four to twelve weeks postpartum to address the **mother's mood and emotional well-being, physical recovery after birth, infant feeding**, pregnancy spacing and contraception, chronic disease management, and preventive health care , health maintenance and family planning.

The major elements of postnatal care include:

- counseling and health education on recognition of danger signs and appropriate care-seeking (for both mother and newborn)
- counseling and health education on routine care practices such as exclusive breastfeeding and good environment care practices.

Why is effective postnatal care so important?

The time when effective postnatal care can make the most difference to the health and life chances of mothers and newborns is in the early neonatal period, the time just after the delivery and through the first seven days of life.

However, the whole of the neonatal period, **from birth to the 28th day after the birth, is a time of increased risk**

Danger signs for the mother and newborn

Early identification and referral/management of emergencies for mother and baby Appropriate detection, management, or referrals are necessary to save mothers and babies in the event of life-threatening complications.

Danger signs for the mother

- Excessive bleeding
- Foul smelling vaginal discharge
- Fever with or without chills
- Severe abdominal pain
- Excessive tiredness or breathlessness
- Swollen hands, face and legs with severe headaches or blurred vision
- Painful, engorged breasts or sore, cracked, bleeding nipples

Danger signs for the newborn

- Convulsions
- Movement only when stimulated or no movement, even when stimulated
- Not feeding well
- Fast breathing (more than 60 breaths per minute), grunting or severe chest in-drawing
- Fever (above 38°C)
- Low body temperature (below 35.5°C)
- Very small baby (less than 1500 grams or born more than two months early)
- Bleeding

المحاضرة السابعة

School health services

The school health services are important dimension of community. The reasons are

- 1-large number in the total population, due to rapid growth and development
- 2-For early detection of nutritional and communicable diseases, due to group living

- Objectives

1. The promotion of positive health.
2. The prevention of disease.
3. Early diagnosis, treatment and follow up of defects.
4. Awakenning health consciousness in children.
5. The provision of healthful living.

- **Aspects of school health services**

1. Health Appraisal of school children & School personnel.
2. Remedial measures and follow up.
3. Prevention of communicable diseases.
4. Healthful school environment.
5. Nutritional Services.
6. First aid and emergency care.
7. Mental Health.
8. Dental Health..
9. Eye health.
10. Health Education.
11. Education of Handicapped children.
12. Proper maintenance and use of school health records .

1. Health Appraisals:-

Health Appraisal consists of periodic medical examination of school children and also teachers & other school personal.

a) Periodic Medical Examination :

The recommended medical examination for the children who are newly entered in the school. The physical examination include - test for Vision, hearing, speech, blood, Urine, and faeces

b) Dental Examination: - Children are frequently suffer from dental diseases i.e. dental Carries So at least once a year dental examination should be provided.

c) School Personal :- Teachers & School personals are some of inspection like pulmonary tuberculosis. So they should also be examined.

c) Daily Morning Inspection :- Some of the Children help the teachers in detecting those children who need medical attention they are unusually flushed face.

- Any rash or spots.
- Sore throat, rigid neck, nausea, vomiting, Red or water eyes.
- Head ache, symptoms of acute cold, chills or fever, diarrhea , body pain.
- Head lice, skin infections like scabies etc.

2. Remedial Measures and Follow up:-

After medical examination they should be given appropriate treatment and follow up. Special clinics should be conducted.

3. Prevention of Communicable Diseases:-

This can be done by National Immunization program. A record of all immunization should be maintained as part of School health records when the child leaves the school, the health record should be accompanied with him.

4. Healthful School Environment :-

A healthful school environment is necessary for the child to grow best as emotionally, socially & Personal healthy. The school authority should

follow same standards towards location, site structure, class room, furniture doors and windows, lighting, water supply, eating facilities and lavatory for the school.

5. Nutritional Services :-

If the child is physically weak, he may be mentally weak also. So the child can't take full advantage of schooling .

In Iraq the nutritional disorders are malnutrition, Vitamin, Iron , Iodine and Calcium deficiencies.

To prevent these disorders the midday school meal, applied nutrition program , Vitamin A prophylaxis (Against blindness) programmes are important .

6. First aid and emergency care:-

The School teachers should be well trained during teacher training programme or in service training program in order to give first aid and emergency care for the pupils in school buildings .

7. Mental health:-

The School is the right place for shaping the child's behavior and promoting mental health. The mental health of the child affects the physical health and learning process. Some of the school children problems are drug addiction, Juvenile maladjustment and others .

The school teacher plays an important role helping the child to attain positive mental health.

8 Dental Health Service:-A school health programmes for dental examination at least once in a year should be provided for the children to prevent dental diseases & maintain dental hygiene.

9. Eye health Services :- The eye health services are to be provided in school to detect the refractive errors, treatment of squint and eye infections (trachoma)

10. Health Education :- In school Health services the most important element is health education towards environmental health, personal hygiene and family life.

11. Education of Handicapped children :- The ultimate goal is to assist the handicapped child and his family members and the child will be able to reach his maximum energy to lead a normal life as possible

12. School health Records :- In school, there should be a cumulative record for every student. Such record contain identifying data, i.e., date of birth, parent's name & Address, past health examination & Screening tests and record of services provided. These records are useful to analyze

and evaluate the school health program & provide a useful link between the school, home & the community .

- **Role of the Community Health Nurse in the school Health**

- She is a counselor and educator of health.
- She plans the health talks to be given in school.
- She provides guidance to the teachers and parents in matter of health.
- She is the coordinator and organizer of the school health programs.
- She helps and bridge the gap between what the child learns at school and practices at home.

- School health assessment

A- Assessment of the school

1- assessment of the building Location ,size , floors , walls ,playground , corridors , exits , heating system , cooling system , ventilation , lighting , fire proof instruction , safety tools , accident and health hazards

2- Assessment of classroom Size and dimension , lighting , ventilation ,seat , distance of the desk and blackboard , remarks (by student)

3- Assessment of sewage disposal Condition of latrine , design , location lighting ventilation , number per students , remarks

4- assessment of water supply Drinking foundation , design , number per students .sinks and wash base , design , location number per students

5- assessment of refuse disposal Method of collecting refuse : containers , sack system , the frequency of removal

6- assessment of school program

A- school health services

B –school health committees

C – health education

المحاضرة الثامنة

Occupational Health

❖ Introduction:

-No work is completely risk free and all health care professionals should have some basic knowledge workforce populations, work and related hazards, and methods to control hazards and improve health.

- Occupational Health: Aims to promote and maintenance the highest degree of physical, mental & social wellbeing of workers in all occupation.**

❖ Definition and Scope of Occupational Health Nursing

-The specialty practice that focuses on the promotion, prevention of disease and injury and restoration of health within the safe and healthy environment, thence to achieve optimal health and high productivity.

- It represents a dynamic equilibrium between the worker and his occupational environment.

- It involves the prevention of adverse health effects occupational and environmental hazards.

- It provides for and delivers occupational and environmental health and safety services to workers, worker populations, and community groups.

❖ Objectives of Occupational Health

- To maintain and promote the workers health and working capacity.**
- To the improvement of working environment and work**

- **Development of work organisation in a direction which supports health and safety at work**
- **To prevent occupational diseases and injuries.**
- **To adapt the work place and work environment to the needs of the workers i.e. application of ergonomics principle.**
- **It should be preventive rather than curative.**

❖ Occupational Health Nurse Work Setting

- 1. Traditional manufacturin**
- 2. Services (banking, restaurants).**
- 3. Industries.**
- 4. Health care facilities.**
- 5. Construction sites.**
- 6. government settings.**

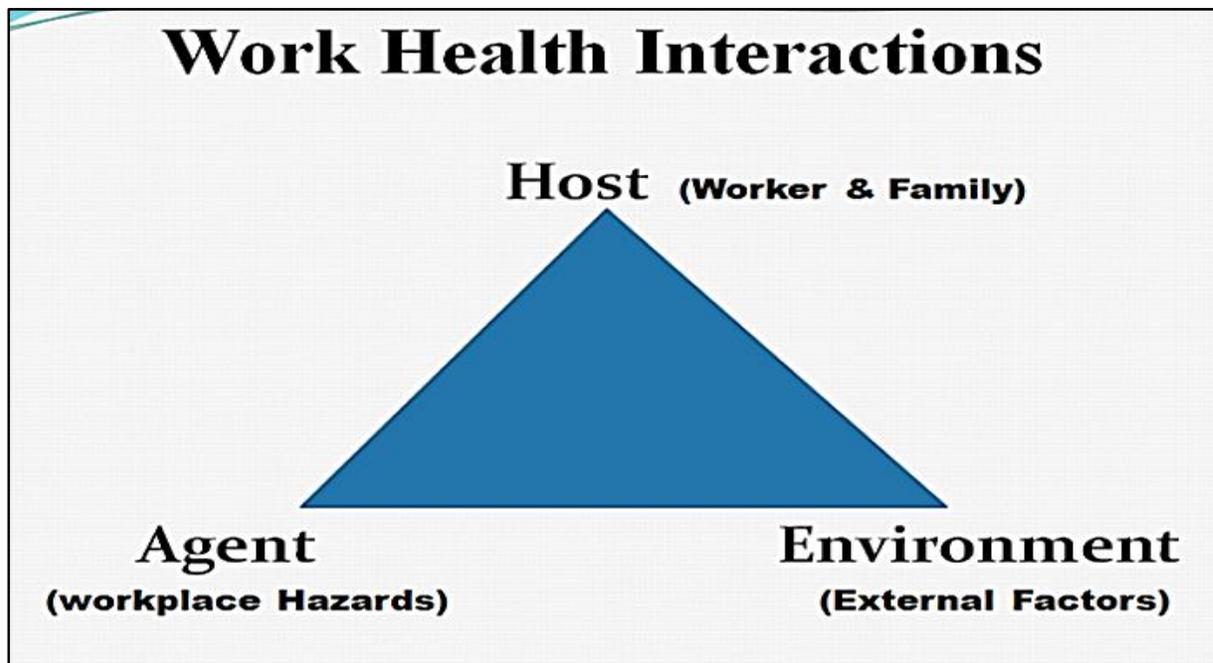
❖ Scope of Practice:

- 1. Worker/ workplace assessment and surveillance**
- 2. Primary care**
- 3. Counselin**
- 4. Health promotion/protection**
- 5. Administration and management**
- 6. Research**
- 7. Community orientation**

❖ **The Professional Organization for Occupational Health Nurses is The American Association of Occupational Health Nurses (AAOHN)**

Functions:

- 1. Promotes the health and safety of workers.**
- 2. Defines the scope of practice and sets the standards of occupational health nursing practice.**
- 3. Promotes and provides continuing education in the specialty.**
- 4. Advances the profession through supporting research.**



Host

Host Factors are Associated with Increased Risks to the Workplace

- **Each worker represents a host within the working population group:**
 - ❖ **Age and Gender**
 - ❖ **Health Status**
 - ❖ **Work Practice**
 - ❖ **Ethnicity**
 - ❖ **Lifestyle factors**
- **The host factors of age, gender and work experience combine by increased risk for injury due to:**
 - ❖ **Lack of knowledge**
 - ❖ **Lack of familiarity with the new job.**
- **Older workers have increased risk due to:**
 - ❖ **Diminished sensory abilities.**
 - ❖ **The effect of chronic illnesses.**
 - ❖ **Delayed reaction times.**
- **Women in child bearing years very susceptible to workplace exposure because:**
 - ❖ **The hormonal changes during these years.**
 - ❖ **Trans-placental exposures.**

Agent

1. Biological Agents:

- ❖ **Are living organisms are capable of causing human diseases by infectious process.**
- ❖ **Bacteria, Viruses, Fungi**
- ❖ **Common in workplace (Health Care Facilities and Clinical Laboratories).**

2. Chemical agents:

Various forms of chemicals

- ❖ **Medications**
- ❖ **Solutions**
- ❖ **Gases**
- ❖ **Vapors, aerosols**

3. Environmental and mechanical Agents:

Are those that can potentially cause accidents, injury, strain or discomfort e.g?

- ❖ **safe/ inadequate equipment**
- ❖ **Lifting devices and lifting heavy loads.**
- ❖ **Slippery floors**
- ❖ **Repetitive motions.**

4. Physical agent:

Within the work environment include the following:

- ❖ **Temperature extremes.**
- ❖ **Vibration (affects internal organs, supportive ligaments and the shoulder girdle structure).**
- ❖ **Noise**
- ❖ **Radiation**
- ❖ **Lighting**
- ❖ **Electricity**

★Personal protective equipment includes:

- ❖ **Hearing protection**
- ❖ **Eye guards**
- ❖ **Protective clothing**
- ❖ **Devices for monitoring exposure to agents such as radiation**

5. Psychosocial agents:

- **Interpersonal relationships among Employees and Coworkers and Managers are often sources of conflict and stress.**

Environment

Environmental Factors:

- ◆ **Physical environment (Heat, Odor, Ventilation) influence the occurrence of host agent interactions.**
- ◆ **New environmental problems continue to arise such as:**
 - ❖ **An increase in industrial wastes and toxins.**
 - ❖ **Indoor and outdoor environmental pollution.**
- ◆ **Addictive behaviors (negative social environment)**

❖ **Team Of Occupational Health and Safety Programs:**

The following are core members of this team:

- ✓ **Occupational health nurse**
 - ✓ **Occupational physician**
 - ✓ **Industrial hygienist**
 - ✓ **Safety professional**
- ❖ **Role of the Nurse in the Team**
- **The nurse collaborate with a community physician or occupational medicine physician who provide consultation and accepts referrals where medical intervention is needed.**

- **The collaboration may occur primarily through telephone contact or the physician may be under contract with the company to spend a certain amount of time on site each week.**
- **And also responsible for ; Home care • Special provision for services for women and children • Rehabilitation of the ill and injured workers • Industrial plant survey**
- ❖ **Scope of Services Provided Through an Occupational Health and Safety Program:**
 1. **Health/medical surveillance.**
 2. **Workplace monitoring/ surveillance.**
 3. **Health assessment (preplacement, periodic, mandatory, transfer, retirement/ termination, return to work).**
 4. **Health promotion.**
 5. **Health screening.**
 6. **Primary health care for workers and dependents.**
 7. **Worker safety and health education related to occupational hazards.**
 8. **Prenatal & postnatal care.**
 9. **Preretirement counseling.**
- ❖ **Nursing Care of Working Populations**
 - **The nurse is often the first health care provider seen by an individual with a work related health problem.**

- **The occupational health nurse practices all levels of prevention.**
- ❖ **Primary prevention (provide education of safety in the workplace to prevent injury).**
- ❖ **Secondary prevention (periodic screening to identify an illness at the earliest possible).**
- ❖ **Tertiary prevention is intended to restore health as fully as possible.**
- ❖ **Goal of Working Populations Assessment**
 - **To identify agent and host factors that could place the employee at risk.**
 - **To determine prevention steps that can be taken to minimize potential health problem.**

المحاضرة التاسعة

Home Visit

Learning Objectives-

1. Provide Brief Introduction about Home Visit.
2. Define Home Visit and Nursing Home Visit.
3. List the Purposes of Home Visit.
4. Describe the Home Visit Process (Phases) and Activities Involved.
5. Identify the Advantages of Home Visit.

Introduction-

Community health nurses work with families in different settings, including clinics, schools, support groups, offices and the family home. An important aspect of community health nursing 's role in promoting the health of population has been the tradition of providing services to individual families in their homes.

Definitions of Terms-

Home Visit-

It is a visit to a person's home, especially one made by a healthcare professional or social worker.

Nursing Home Visit-

It is a family-nurse contact which allows a healthcare professional to assess the home and family situations in order to provide the necessary nursing care and health related activities.

Purposes of Home Visit-

Home visits give a more accurate assessment of the family structure and behavior in the natural environment. The **Purposes** of Home Visiting are-

1. To assess the family as a unit and as individuals.
2. To observe the family in its real situation and environment. Find out how differently family members interact with each other.

3. To give teaching and advices in the home environment where family lives, and also allows for the use of familiar equipment and materials
4. To give each family member a chance to raise questions.
5. To allow enough time to identify the needs of each family member.
6. To observe the nursing care given to a sick member at home and give necessary guidelines.
7. To identify health hazards and problems that could not be dealt with during a clinic visit. E.g. how to prepare for a baby bath or care of a colostomy etc.
8. To identify high risk family members and refer as needed.

Home Visit Process (Phases)-

1. Initiation Phase-

Initially a home visit is initiated as a result of the following reasons:

- ✓ A referral from a health or social agency,
- ✓ A request from a family,
- ✓ For a case finding activity,
- ✓ Subsequent home visits are made based on need and mutual agreement between the nurse and the family.

2. Pre-Visit Phase-

The main activities include the following-

- ✓ Contact the family before the visit to identify the reason for the contact by a telephone call or sending message through other means.
- ✓ Inform the family the source of referral to make sure the family is aware of the referral.
- ✓ This will establish the perspective value of client's input and involvement in the care. E.g. the nurse might say" I understand that your baby was discharged from the hospital yesterday and you requested some assistance with caring for the child at home". A visit should be scheduled as soon as possible and appropriate for both the

nurse and the family either by a telephone call or dropping a note at the family home or sending a letter Informing the family of when and why the home visit will occur, with a means for the family to contact the nurse if necessary. The family can accept or refuse to agree for a home visit. The nurse needs to explore the reason for refusal if the family dose so and continue to negotiate and leave open possibility of future contact. There are legal obligations, for e.g. follow up of certain communicable diseases that a nurse continues to request for a home visit.

Before visiting the home, it can be useful for the nurse to review the referral of, if it is not the first visit, the family record. If there is a time lapse between the contact and the visit, a brief telephone call to confirm the time often avoids a visit when the family is not at home.

3. In-Home Phase-

The actual visit to the home affords the nurse with the opportunity to assess the neighborhood. Nurses must be careful about their personal safety. Certain precautions can be taken in known high risk situations. Agencies may provide escorts for nurses or have them visit in pairs, readily identifiable uniform may be required., a sign-out process indicating the timing and location of home visits may be used. The nurse needs to use caution, if a reasonable question about the safety of making visit exists the visit should not be made alone.

The actual home visit includes the following components:

- Provide personal identification and professional affiliation as part of the introductory phase.
- Provide a social period for the client to assess the nurse and to establish rapport.
- Implement nursing process step by step i.e. Assessment, diagnosis, (identification of needs and problems) intervention and evaluation.
- Resources for meeting needs are also explored with the family.

The frequency and intensity of home visits vary with the needs of the family. It is realistic to expect at least the beginning of building relationship and

initial assessment to occur during the first visit. In subsequent visits the nurse may devote time on providing family central nursing care.

4. Termination Phase

The phase begins when the purpose of visit has been accomplished . The main activities included in this phase are:

- ✓ Review with the family what has occurred and accomplished. This provides the client the opportunities to recognize what has been done and provides a basis for planning any future home visits.
- ✓ The nurse plans for the future home visit with the family and scheduling the future visit in detail as what needs to be done for the family. For e.g. care giving, advising, reassuring, explaining, counseling, or referring.

5. Post-Visit Phase

The post-visit takes care of the documentation of the visit in detail. Responsibility of a home visit is not complete until the interaction has been recorded. All records should include the following elements.

- a. A data base,
- b. Nursing diagnosis and a problem / need list,
- c. And evaluation

These are the basic elements needed for legal and clinical purposes. It is important that the recorded information be current, dated, and signed.

Advantages of Home Visit-

1. Convenient for the client. Family members will be more relaxed in their real situation.
2. Client control of the setting.
3. The best option for clients unwilling or unable to travel.
4. The family gains confidence in this direct personalized contact and are then free to raise questions and solve their problems.

المحاضرة العاشرة

Home Health Care Services

Learning Objectives-

1. Define Home Health Care Services and Home Health Care Nursing.
2. Identify the Team Members of Home Health Care Services.
3. List the Types of Clients Needing Home Health Care Services.
5. Describe the Roles and Functions of Community Health Nurse in Providing Home Health Care Services.

Definition of Terms-

Home Health Care Services – They are the health services provided to individuals and families in their places of residence for the purpose of promoting, maintaining or restoring health, or of maximizing the level of independence, while minimizing illness. Services appropriate to the need of the patient and family are planned, coordinated, and made available by providers organized for the delivery of home care through the use of employed staff.

Home Health Care Nursing- It is a nursing specialty in which nurses provide multidimensional home care to patients of all ages. Home health care is a cost efficient way to deliver quality care in the convenience of the client's home. Home health nurses create care plans to achieve goals based on the client's diagnosis.

Team Members of Home Health Care Services-

The following people are the medical and nursing professionals with whom the client will interact with on a daily basis. Compassion, dignity and respect for client needs are their guiding principles for the relationship these individuals develop with clients and their families.

- **Attending Physician-** The attending physician has responsibility for all decisions made that affect your care.
- **Residents, Interns and House Staff**
- **Specialists (physicians)**
- **Nurse Manager**

- **Registered Nurses**
- **Licensed Practical Nurses**
- **Nurse Practitioners and Physician's Assistants**
- **Patient Advocate**
- **Patient Care Technicians**
- **Social Worker**
- **Dietitian**
- **Therapists**
- **Interpreters** - An interpreter is available to provide interpretation between, patients, providers, and family members. Interpreter Services helps to facilitate language access for Deaf and Hard of Hearing individuals and people whose primary language is not their mother language.

The Home Care Clients Needing Home Health Care Services-

The largest population needing home care is the elderly because dependency increases with age, dramatically so after 75. Besides the elderly and long term care populations, another group needing home care is discharged acute care patients. Others include babies and children with disabilities or individuals sent with monitors medication, IVs and various therapies. Some, such as children, women, and drug users have additional special needs.

Another sub population receiving home health services is “wellness home care market”. These clients do not require medical care but have concerns about their health and well-being and are receptive to health promotion and illness prevention strategies. They use services such as diagnostic testing and screening(for e.g. blood pressure monitoring); and illness prevention (for e.g. information about exercise and stress management). Chronic epileptic patient, handicapped mentally and physically, terminally ill patients etc.

Roles and Functions of Community Health Nurse In the Home Health Care Services-

- ✓ **Planner/Programmer-**
 - a. Identifies needs, priorities, and problems of individuals, families, and communities.
 - b. Formulates municipal health plan in the absence of a medical doctor.

- c. Interprets and implements nursing plan, program policies and circular for the concerned staff personnel.
- d. Provides technical assistance to rural health midwives in health matters.

✓ **Provider of Nursing Care-**

- a. Provides direct nursing care to sick or disabled in the home, clinic, or workplace.
- b. Develops the family's capability to take care of the sick, disabled, or dependent member.

✓ **Community Organizer-**

- a. Motivates and enhances community participation in terms of planning, organizing, implementing, and evaluating health services.
- b. Initiates and participates in community development activities.

✓ **Coordinator of Services-**

- a. Coordinates with individuals, families, and groups for health related services provided by various members of the health team.
- b. Coordinates nursing program with other health programs like environmental sanitation, health education, dental health, and mental health.

✓ **Trainer/Health Educator-**

- a. Conducts pre and post-consultation conferences for clinic clients.
- b. Acts as a resource speaker on health and health related services.
- c. Initiates the use of tri-media (radio/TV, cinema plugs, and print ads) for health education purposes.
- d. Conducts pre-marital counseling.

✓ **Health Monitor-**

- a. Detects deviation from health of individuals, families, groups, and communities through contacts/visits with them.

✓ **Role Model-**

- a. Provides good example of healthful living to the members of the community and for the people in need.

- ✓ **Change Agent-**
 - a. Motivates changes in health behavior in individuals, families, groups, and communities that also include lifestyle in order to promote and maintain health.

- ✓ **Recorder/Reporter/Statistician-**
 - a. Prepares and submits required reports and records.
 - b. Maintain adequate, accurate, and complete recording and reporting.
 - c. Reviews, validates, consolidates, analyzes, and interprets all records and reports.
 - d. Prepares statistical data/chart and other data presentation.

- ✓ **Researcher-**
 - a. Participates in the conduct of survey studies and researches on nursing and health-related subjects.
 - b. Coordinates with government and non-government organization in the implementation of studies/research.

المحاضرة الحادي عشر

Environmental Health and Safety

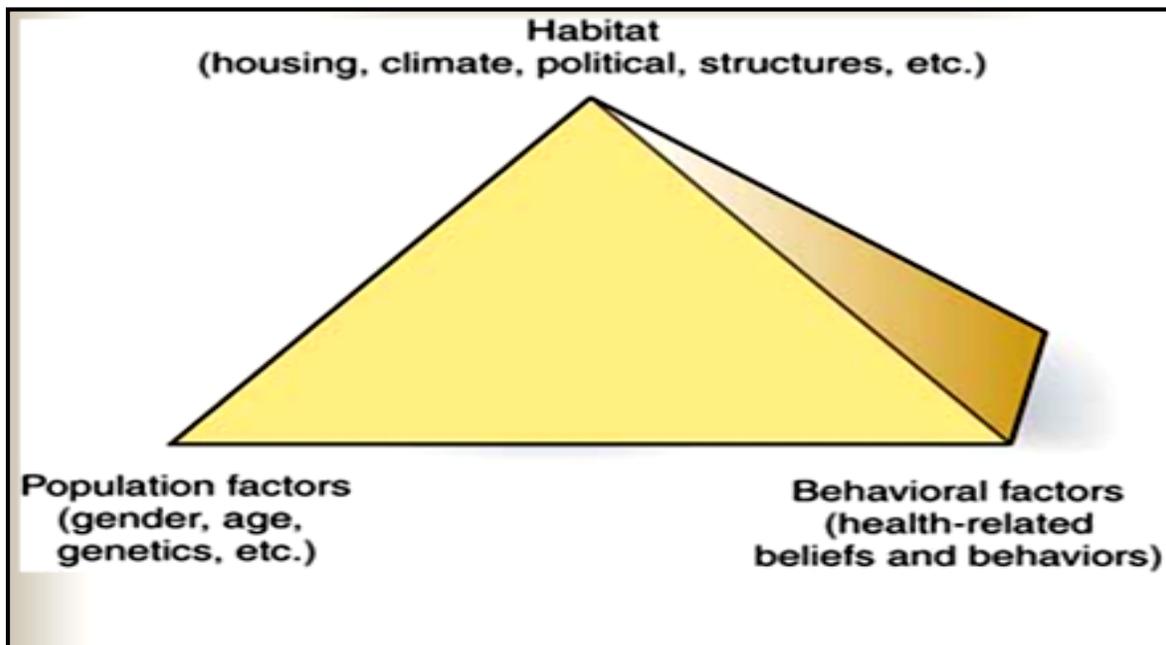
The Environment:

- Defined as the conditions by which one is surrounded
- An interaction world view separates persons from the environment
- An integration worldview conceptualizes persons & environment as one.

Ecologic Perspective: -

- An ecosystem is a community of living organisms and their interrelated physical and chemical environment. Within an ecosystem, any manipulation of one element or organism may have hazardous effects on the rest of the system.
- Habitat includes aspects of the environment in which people live, including housing, workplaces, communication systems, flora, fauna, climate, topography, services, and economic and political structures of societies and local communities.
- Population factors include the characteristics of the population (age, gender, and genetic predisposition).
- Behavioral factors include health-related beliefs and behaviors, which are shaped by a range of social and economic factors.

The Environmental Triad



Habitat: the natural home or environment of an animal, plant, or other organism.

Population factors: Population growth is based on four fundamental factors: birth rate, death rate, immigration, and emigration.

Behavioral Factors: health related beliefs and behavior (Like; Psychological, Social, Cultural, Personal, Economic)

Major Global Environmental Concerns:

► **Global environmental concerns now face the world, including:-**

- **Overpopulation.**
- **Ozone depletion.**
- **Global warming, deforestation, wetlands destruction, desertification.**
- **Energy depletion.**

► **Overpopulation:**

- Human population took hundreds of thousands of years to reach 1 billion in the 1800s and until 1960 to reach 3 billion. Less than 50 years later, it has more than doubled to 6.7 billion. Now, the number has reached 8 billion
- Every **11 years**, the world gains 1 billion people. Assuming that overall fertility rates continue to decline as they have since the 1970s.
- by 2050 there may still be well in excess of 9.2 billion inhabitants of Earth.
- in Germany, Italy, Russia, and Spain for instance, their populations will decrease by anywhere from 2% to 10 % by the year 2025.
- countries such as Nigeria, Zambia, and Jordan have high fertility rates, and it is likely that their populations will increase by 30% to 60% over the same period .
- What do these statistics and trends mean for the health of populations and the ecosystem?

Government's Role:

- Governing a country has a responsibility to ;
- Provide a well-formed infrastructure of health and safety services for its population;
 - Economic development that provides employment,
 - Housing, and services;
 - Political strength to provide stability to the nation.
 - Many countries with unstable political systems are unable to deal effectively with overpopulation issues.

Nurse's Role:

■ Include the Following:

- (a) Teaching families that birth spacing improves child and maternal survival.
- (b) Preventing high-risk pregnancies, such as those among teens and adult women.
- (c) preventing the growing epidemic of HIV/AIDS;
- (d) Providing **family planning** education to prevent worldwide deaths from **unsafe abortions**.
- (e) Providing prenatal care—because healthy mothers equal healthy children.

►► Ozone Depletion:

Its global warming, its trapping of heat radiation from earth surface that increase the overall temperature of the world, it caused by carbon dioxide & other gases that enter the atmosphere through depleted ozone layer & become trapped and effect on health.

Government's Role:

- Set standards for air quality and industrial emissions and delegated funds to assist in pollution control programs.
- public health efforts are needed to help identify pollution sources and related health hazards.
- Reduce sulfur in gasoline.
- Reduce use more energy.
- Consider transportation alternative

Nurse's Role:

- Cigarette smoke are common indoor pollutants that can have ill effects on nonsmokers as well as smokers.
- Infants and other exposed persons are at risk.
- Carbon monoxide poisoning may result from stove and boiler emissions or from car drain in a garage.
- Nurses can assist with the prevention or elimination of these health hazards by ensuring that the indoor environment is well ventilated (oxygenated) and heating equipment properly maintained.

►► **Deforestation, Wetlands Destruction, and Desertification:**

- **Deforestation** is the clearing of tropical and temperate forests for cropland, cattle grazing, or urbanization.
- **Wetlands** are natural inland bodies of shallow water. Benefit of Wetlands; it's water purification, flood control, carbon sink and shoreline stability.
- **Desertification** refers to the conversion of fertile land into desert, which is unable to support crop growth or wildlife.
- Any natural or manmade process that changes life-supporting regions into land for other use or into unproductive wastelands upsets the ecosystem of the area.
- The destruction of forests and the upturning of Earth for urban sprawl uncovers **organisms hidden** for eons, to which humans and animals are then exposed

Government's Role:

- Make decisions that save the wetlands and forests.

Nurse's Role:

- Community health nurses can make a difference in this area. Perhaps no other person knows a community more intimately than the community health nurse. This role gives a valid voice of concern at the local level. By **using leadership** and **collaborative skills**,

►► **Energy Depletion:**

- Most of the energy sources we use today are not renewable. Wood has been used for thousands of years and was our first fuel.
- Natural gas for heat and fuel can be a highly efficient energy source.
- Nuclear energy has been used for at least 50 years.

Government's Role:

- Renewable sources of energy need to be discovered.
- A global effort to increase awareness and additional technology to use these energy sources.

Nurse's Role:

- the nurse can educate people about energy conservation.
- discuss alternative energy sources presently available in the community.
- encourage people to become interested in and knowledgeable about the importance of the potential for energy depletion in the future.
- Conservation methods include ensuring that a home or apartment is well insulated and free from drafts.

♣ Collaborative Strategies to Promote Environmental Health:

1. Learn about possible environmental health threats
2. Assess clients' environment and detect health hazards
3. Assist with the implementation of programs
4. Educate consumers and assist them to practice preventive measures.
5. Apply environmentally related research findings and participate in nursing research.
6. Take action to correct situations in which health hazards exist.
7. Plan collaboratively with citizens and other professionals to devise protective and preventive strategies
8. Take action to promote the development of policies and **legislation** that enhance consumer protection and promote a healthier environment.
9. Assist with and promote program evaluation to determine the effectiveness of environmental health efforts.

➔ Factors Affecting of the Population:(Types of pollution)

1. Air Pollution:

- Air pollution is now recognized as one of the most hazardous sources of chemical contamination.
- It is especially prevalent in highly industrialized and urbanized areas where concentrations of motor vehicles and industry produce large volumes of gaseous pollutants.

- Outdoor air pollution contributes to cardiovascular and respiratory diseases and is believed responsible for **nearly 1 million lung cancer deaths yearly**.
- **With respect to children**, infant mortality in the first year of life, bronchitis, asthma, and reduced lung development are additional health threats

2. Dust, Gases:

- It contains numerous types of chemical irritant and poisons.
- Coal miners have developed **black lung** from inhalation dust.

3. Acid Rain:

Air pollutants such as sulfur dioxide from power plant emissions or nitrogen oxides from motor vehicle combine with rain water, snow to produce sulfuric & nitric acid which change the biology of water, it kills small forms of life.

4. Water Pollution:

- Water can be contaminated and made unsafe for drinking in many different ways.
- Water may be infected with bacteria or parasites that cause disease. **Giardia lamblia is a parasite that enters the water supply.**
- Toxic substances, such as pesticides, are introduced by humans into water systems and structure another form of water pollution.
- Pollutants may upset the ecosystem, affecting natural organisms that help purify water systems.

5. Soil pollution:

Soil contamination or soil pollution is caused by the presence of (**human-made**) chemicals or other alteration in the natural soil environment. It is typically caused by industrial activity, agricultural chemicals, or improper disposal of waste. Contamination is correlated with the degree of industrialization and intensity of chemical usage.

