UNIT 1: INTRODUCTION TO COMMUNITY HEALTH NURSING

Chapter 1: Fundamental Concepts of Community Health Nursing

- Community/ public health nursing is the synthesis of nursing practice and public health practice.
- Major goal of CHN- preserve the health of the community and surrounding population by focusing on **health promotion** and **health maintenance** of individual, family and group within community.
- Thus CHN/ PHN is associated with health and identification of population at risks rather than with an episodic response to patient demand.
- Mission of public health- is **social justice** that entitles all people to basic necessities, such as adequate income and health protection, and accepts collective burdens to make possible.
- Definition of ***health*** according to:
  a. **WHO**- "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity."
  b. **Murray**- "a state of well-being in which the person is able to use purposeful, adaptive responses and processes physically, mentally, emotionally, spiritually, and socially."
  c. **Pender- "**actualization of inherent and acquired human potential through goal-directed behavior, competent self-care, and satisfying relationship with others."
  d. **Orem-** a state of person that is characterized by soundness or wholeness of developed human structures and of bodily and mental functioning."
- Social- "of or relating to living together in organized groups or similar close aggregates"
- Social health- connotes community vitality and is a result of positive interaction among groups within the community with an emphasis on health promotion and illness prevention.
- Community- is seen as a group or collection of locality-based individuals, interacting in social units and sharing common interests, characteristics, values, and/ or goals.
- Definition of ***community*** according to:
  a. **Allender- "**a collection of people who interact with one another and whose common interests or characteristics form the basis for a sense of unity or belonging."
  b. **Lundy and Janes**- "a group of people who share something in common and interact with one another, who may exhibit a commitment with one another and may share geographic boundary."
  c. **Clark-** "a group of people who share common interests, who interact with each other, and who function collectively within a defined social structure to address common concerns."
  d. **Shuster and Goeppinger-** "a locality-based entity, composed of systems of formal organizations reflecting society's institutions, informal groups and aggregates."
- Maurer and Smith (2009)- two main types of communities:

a. Geopolotical communities- also called as territorial communities.
   -are most traditionally recognized.

- defined or formed by both natural and man-made boundaries and include barangays, municipalities, cities, provinces, regions and nations.

b. Phenomenological communities- also called as functional communities.

- refer to relational, interactive groups, in which the place or setting is more abstract, and people share a group perspective or identity based on culture, values, history, interest and goals.

- Population- is typically used to denote a group of people having common personal or environmental characteristics.
- Aggregates- are subgroups or subpopulations that have some common characteristics or concerns.

- **Determinants of Health**

1. Income and social status- higher income and social status are linked to better health. The greater the gap between the richest and poor health, the greater differences in health.

2. Education- low education levels are linked with poor health, more stress and lower self-confidence.

3. Physical environment- safe water and clean air, healthy workplaces, safe houses communities and roads all contribute to good health.

4. Employment and working conditions- people in employment are healthier, particularly those who have control over their working conditions.

5. Social support networks- greater support from families, friends and communities is linked to better health.

6. Culture- customs and traditions, and the beliefs of the family and community all affect health.

7. Genetics- inheritance plays a part in determining lifespan, healthiness and the likelihood of developing illnesses.

9. Personal behavior and coping skills- balanced eating, keeping active, smoking, drinking and how we deal with life's stresses and challenges all affect health.

10. Health services- access and use of services that prevent and treat disease influences health.

11. Gender- men and women suffer from different types of diseases at different ages.

Indicators of Health and Illness

- National Epidemiology Center of DOH, PSA and local health centers/ offices/ departments- provide morbidity, mortality and other health status related data.
- Local health centers/ offices/ departments- are responsible for collecting morbidity and mortality data and forwarding the information to the higher lever of health, such as Provincial Health office.
- Nurses should participate in investigative efforts to determine what is precipitating the increased disease rate and work to remedy the identified threats or risks.

Definition and Focus of Public Health and Community Health

- Definition of ***public health*** according to:
  a. C. E. Winslow- "Public health is the science and art of (1) preventing disease, (2) prolonging life, and (3) promoting health and efficiency through organized community effort for:
  1. sanitation of the environment,
  2. control communicable infections,
  3. education of the individual in personal hygiene,
  4. organization of medical and nursing services for the early diagnosis and preventive treatment of disease, and
  5. "development of the social machinery to ensure 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." (Hanlon)
- Public health- key phrase definition: "through organized community effort".
- connotes organized, legislated, and tax-supported efforts that serve all people through health departments or related governmental agencies.
- **9 Essential public health functions according to WHO Regional Office for the Western Pacific**
  1. Health situation monitoring and analysis
  2. Epidemiological surveillance/ disease prevention and control
  3. Development of policies and planning in public health
  4. Strategic management of health systems and services for population health gain
  5. Regulation and enforcement to protect public health
  6. Human resources development and planning in public health
  7. Health promotion, social participation and empowerment
  8. Ensuring the quality of personal and population-based health service
  9. Research, development, and implementation of innovative public health solution
- Community health- extends the realm of public health to include organized health efforts at the community level through both government and private efforts

Health Promotion and Levels of Prevention

- Health promotion- activities enhance resources directed at improving well-being.
- Disease prevention- activities protect people from disease and effects of disease.
- **Leavell and Clark's Three Levels of Prevention**
  1. Primary prevention- relates to activities directed at preventing a problem before it occurs by altering susceptibility or reducing exposure for susceptible individuals.
  2. Secondary prevention- early detection and prompt intervention during the period of early disease pathogenesis.
  - implemented after a problem has begun but before signs and symptoms appear and targets populations who have risk factors (Keller).
  3. Tertiary prevention- targets populations that have experienced disease or injury and focuses on limitations of disability and rehabilitation.

-AIM: reduce the effects of disease and injury and to restore individuals to their optimum level of functioning.

Community Health Nursing

-global or umbrella term; broader and more general specialty area that encompasses subspecialties that include public health nursing, school nursing, occupational health nursing, and other developing fields of practice, such s home health, hospice care, and independent nurse practice

-"the synthesis of nursing practice and public health practice applied to promoting and preserving health of the populations (ANA, 1980)

Public Health Nursing

- a component or subset of CHN

- the synthesis of public health and nursing practice

PHC according to FREEMAN (1963):

- Public Health Nursing may be defined as the field of professional practice in nursing and in public health in which technical nursing, interpersonal, analytical, and organizational skills are applied to problems of health as they affect the community. These skills are applied in concert with those of other persons engaged in health care, through comprehensive nursing care of families and other groups and through measures for evaluation or control of threats to health, for health education of the public and for the mobilization of the public for health action.

PHC according to ANA (1996):

- "the practice of promoting and protecting the health of populations using knowledge from nursing, social and public health sciences"

- "population-focused, with the goals of the promoting health and preventing disease and disability for all people through the creation of conditions in which people can be healthy.

Community-based Nursing

- application of the nursing process in caring for individuals, families and group where they live, work go to go school or they move through the health care system

- setting-specific, and the emphasis is on acute and chronic care and includes practice areas such as home health nursing and nursing in outpatient or ambulatory setting.

CHN vs. Community-based Nursing

CHN – emphasizes preservation and protection of heath

- the primary client is the community

Community-based Nursing

- Emphasizes on managing acute and chronic

- the primary clients are the individual and the family

Population-focused Nursing:

-concentrates on specific groups of people and focuses on health promotion and disease prevention, regardless of geographical location (Baldwin et al., 1998)

-focused practice:

1. focuses on the entire population

2. is based on assessment of the populations' health status

3. considers the broad determinants of health

4. emphasizes all levels of prevention

5. intervenes with communities, systems, individuals and families

- goal:

promote healthy communities

CHN practice requires the ff. types of data for scientific approach and population:

1. the epidemiology or body of knowledge of a particular problem and its solution
2. information about the community

Types of information	**Sources**
Demographic	Vital Statistics; census
Groups at high risk	Health statistics; disease statistics
Services/providers available	City directors, phone books, local/regional social workers, list of low income providers, CH nurse

Family – basic unit of care in CHN

Individual –focus in the clinic or health center

The Intervention Wheel

- proposed in the late 1990s by nurses from the Minnesota Department of Health to describe the breadth and scope of public health nursing

practice; recognized as a framework for community and public health practice

- consist of 17 health interventions are grouped into 5 wedges

3 Important Elements:

1. It is population-based

2. It contains 3 levels of practice (Community, systens and individual/family)

3. It identifies and defines 12 public health interventions

Public Health Interventions and Definition (Keller et al., 2004)

- Surveillance – monitors health events
- Disease and other health event investigation – systematically gathers and analyzes data regarding threats to the health of populations
- Outreach – locates populations of interests or populations at risk
- Screening – identifies indiduals with unrecognized health risk factors
- Case finding – identifies risk actors and connects them with resources
- Referral and follow-up – assists individuals and families, families, groups, organizations ad communities to identify and access necessary resources
- Case management – optimizes self-care capabilities of individuals and families
- Delegated functions – direct care tasks that the nurse carries out
- Health teaching – communicates facts, ideas and skills that change knowledge, attitudes values, behaviors and practice
- Counseling – establishes an interpersonal relationships; with the intention of increasing or enhancing their capacity for self-care and coping
- Consultation – seeks information and generates optional solutions to perceived problems
- Collaboration – commits two or more persons or an organization
- Coalition building – develops alliances among organizations
- Community organizing – helps community groups to identify common problems or goals mobilizes resources and develop and implement strategies
- Advocacy – pleads someone's cause or acts on someone's behalf
- Social marketing – utilizes commercial marketing principles for programs
- Policy development and enforcement – place issues on decision makers' agendas, acquires plan of resolution

EMERGING FIELDS OF CHN IN THE PHILIPPINES

- HOME HEALTH CARE – this practice involves providing nursing care nursing care to individuals and families in their own places of residence mainly to minimize the effects of illness and disability.
- HOSPICE HOME CARE – homecare rendered to the terminally ill. Palliative care is particularly important

ENTREPRENURSE

- A project initiated by the **Department of Labor and Employment (DOLE),** in collaboration with the Board of Nursing of the Philippines, Department of Health, Philippines Nurses Association and other stakeholders to promote nurse entrepreneurship by introducing a home health care industry in the Philippines. It aims to:
  1. Reduce the cost of health care for the countries indigent population by bringing primary health care services to poor rural communities
  2. Maximize employment opportunities for the ountries unemployed nurses
  3. Utilize the countries unemployed human resources for health for the delivery of public health services and the achievement of the country's Millenium Development Goals (MDG) on maternal and child health, (DOLE, 2013)

MAIN PURPOSE OF ENTRPRENURSE

- To deliver home health care services

COMPETENCY STANDARDS IN CHN

1. Safe and Quality Nursing Care
   -knowledge of health/illness status of the client, sound decision making ; safety, comfort, privacy, administration of meds and health therapeutics and nursing process.

2. Management of resources and environment

- orgamization of workload; use of financial resurces for client care; mechanism to ensure proper functioning of equipment and maintenance of a safe environment

3. Health Education

- assessement of client's learning needs; development of health education plan and learning materials and implementation and evaluation of health education plan

4. Legal Responsibility

- adherence to the nursing laws as well as to national, local and organizational policies including documentation of care given to clients.

5. Ethicomoral Responsibility

- respect for the rights of the client; responsibility and accountability for own decisions and actions; and adherence to the international and national codes of ethics for nurses

6. Personal and Professional Development

- identification of own learning needs, pursuit of continuing education; involvement in professional image; positive attitude towards change and criticism

7. Quality Improvement

- data gathering for quality improvement; participation in nursing rounds; identification and reporting of solutions to identifies problems related to client care.

8. Research

- research-based formulation of solutions to problems in client care and dissemination and application of research findings

9. Records Management

- accurate and updated documentation of client care while observing legal imperatives and record keeping

10. Communication

- uses therapeutic communication techniques, identiies verbal and nonverbal cues, responds to client needs,while using formal and informal channels of communication and appropriate information technology

11. Collaboration and Teamwork

- establishment of collaborative relationship with colleagues and other members of health team

HISTORY OF PUBLIC HEALTH AND PUBLIC HEALTH NURSING IN THE PHILIPPINES

1577 - Franciscan FriarJuan Clemente opened medical dispensary in Intramuros for the indigent

1690 – Dominican Father Juan de Pergero worked toward installing a water system in San Juan del Monte and Manila

1805 – smallpox vaccination was introduced by Franciwsco de Balmis , the personal physician of King Charles IV of Spain

1876 – first medicos titulares were appointed by the Spanish government

1888 - 2-year courses consisting of fundamental medical and dental subjects was first offered in the University of Santo Tomas. Graduated were known as “cirujanosministrantes” and serve as male nurses and sanitation inspectors

1901 – United States Philippines Commission, through Act 157, created the Board of Health of the Philippine Islands with a Commisioner of the Public Health ,as its chief executive officer (now the Departmnt of Health

Fajardo Act of 1912 – created sanitary divisions made up of one to four municipalities. Each sanitary division had a president who had to be a physician

1915 - the Philippine General hospital began to extend public health nursing services in the homes of patients by organizing a unit called Social and Home Care services

Asociacion Feminista Filipina (1905) – Lagota de Leche was the first center dedicated to the service of the mothers and babies

1947 – the Department of Health was reorganized into bureaus: quarantine, hospitals that took charge of the municipal and charity clinics and health with the sanitary divions under it.

1954 – Congress passed **RA 1082 or the Rural Health Act** that provided the creation of RHU in every municipality

RA 1891 – enacted in 1957 amendd certain provisions in the Rural Health Act

- Created 8 categories of rural health units corresponding to the population size of the municipalities

RA 7160 (Local Government Code) – enacted in 1991, amended that devolution of bsic health services incuding health services, to ocal government units and the establishment of a local health board in every province and city of municipality

Millennium Development Goals – adopted during the world summit in September 2000

FOURmula One (F1) for health, 2005 and **Universal Health Care** in 2010 – agenda launched in 1999

Universal Health Care – aims to achieve the health system goals of better health outcomes, sustained health financing, and responsive health system that will provide equitable access to health care

Chapter 2: THEORETICAL FOUNDATIONS OF COMMUNITY HEALTH NURSING PRACTICE

- **Historical Perspectives on Nursing Theory**
  - > Florence Nightingale was the first nurse to formulate a conceptual foundation for nursing practice.
    - – She believed that clean water, clean linen, access to adequate sanitation and a quiet environment would improve health outcomes.
  - > Other early nursing theories were extremely narrow and depicted health care situations that involved only one nurse and one patient. Noticeably, the family and other health care professionals were absent from the context of the theories.
  - > From 1980 onwards, several nursing theorists including, Dorothy Johnson, Sister Callista Roy, Imogene King, Betty Neuman and Jean Watson have included community perspectives in their definition of health.
- **How Theory Provides Direction to Nursing**
  - > The goal of theory is to improve nursing practice by acting as a guide.
- **General Systems Theory**
  - > The General Systems Theory is the basis, in part, of several nursing theories.
  - > It is applicable to the different levels of the community health nurse's clientele: individuals, families, groups or aggregates and communities.
  - > The client is considered as a set of interacting elements that exchange energy, matter or information with the external environment to exist (Katz and Kahn, 1966; von Bertalanffy, 1968)
  - > This theory is useful when analyzing interrelationships of the elements within the client and the environment
  - > For example: the family has the basic structures that all open systems have.
    - – It has *boundaries* that separate it from its environment.
    - – Culture and the Family Code dictate the boundaries of the Filipino Family.
    - – The *Family Environment* constitutes everything outside its boundaries that may affect it; the family home and the community and its institutions make up the immediate environment and should be considered in the assessment of family health status.
    - – The family gets *inputs* of matter (food, water), energy, and information from the environment
    - – *Outputs* are material products, energy and information that result from the family's processing of inputs. Examples are health practices and the health status of the family members.
    - – *Feedback* is the information from the environment directed back to the system, it allows the system to make the necessary adjustments for better functioning.

(a) For example: a nurse's feedback to a mother that her child is underweight makes the mother more aware of her child's needs and allows her to take action.

- *Subsystems* are the components of a system that interact to accomplish their own purpose. (Family members)
- *Suprasystems* are a bigger system composed of families who interrelate with and affect one another. (Families)

- **Social Learning Theory**

> It is based on the belief that learning takes place in a social context; people learn from one another and learning is promoted by modeling or observing other people.

> It assumes that all personas are thinking beings that are capable of making decisions and acting according to expected consequences of their behavior.

> The environment affects learning but learning outcomes depend on the learner's individual characteristics.

> Application of the theory can be done by:

- Catching the person's *attention* with different strategies
- Promoting *retention* of learning
- Providing opportunities for *reproduction* or *imitation* of the procedures
- *Motivating* the person by explaining the benefits possible by practicing the behavior

- **The Health Belief Model**

> Initially proposed in 1958, the model provides the basis for much of the practice of health education and promotion today.

> This model found that information alone is rarely enough to motivate people to act for their health. Individuals must know what to do and how to do it before they can take action.

Concept	Definition
Perceived susceptibility	One's belief regarding the **chance** of getting a given condition
Perceived severity	One's belief in the **seriousness** of a given condition
Perceived benefits	One's belief in the ability of an advised action to **reduce the health risk** or **seriousness** of a given condition
Perceived barriers	One's belief regarding the **tangible** and **psychological costs** of an advised action
Cues to an action	Strategies or conditions in one's environment that **activate readiness** to take **action**
Self-efficacy	One's confidence in **one's ability** to **take action** to reduce health risks

> The model's concepts all relate to the client's perceptions
> For example: the cue to action in the prevention of dengue fever may be provided through an information campaign. This makes the people in a barangay aware of the disease and that everyone is susceptible to the possibly fatal disease. The HBM would be used by the nurse to help clients in making behavior modifications to avoid dengue.

- **Milio's Framework for Prevention**

> Milio (1976) proposed that health deficits often result from an imbalance between a population's health needs and its health sustaining resources.
> She stated that diseases associated with excess occurred in affluent societies (obesity) and diseases that result from inadequacies in food, shelter and water afflict the poor. Therefore, poor people in affluent societies experience the least desirable combination of factors.
> Personal and societal resources affect the range of health promoting or health damaging choices available to individuals. Personal resources include the individual's awareness, knowledge and health beliefs. Money and time are also personal resources.
> She proposed that most human beings make the easiest choices available to them most of the time. Health promoting choices must be more readily available and less costly than health damaging options for individuals to gain health.
> This theory is broader than the HBM, it includes economic, political and environmental health determinants rather than just the individual's perceptions.
> This theory encourages the nurse to understand health behaviors in the context of their societal milieu.

- **Pender's Health Promotion Model**

> The model explores many biopsychosocial factors that influence individuals to pursue health promotion activities.

Constructs/Variables of HPM	
Individual characteristics and experiences	Each person's unique characteristics and experiences affect his or her actions. Their effect depends on the behavior in question
Prior related behavior	Prior behaviors influence subsequent behavior through perceived self-efficacy, benefits, barriers and affects related to that activity. Habit is also a strong indicator of future behavior.
Behavior specific cognitions an affect	In the HPM, these variables are considered to be very significant in behavior motivation. They are a "core" for intervention because they may be modified through nursing actions assessment of the effectiveness of interventions is accomplished by measuring the change in these variables.

Perceived benefits of action	The perceived benefits of a behavior are strong motivators o that behavior. These motivate the behavior through intrinsic and extrinsic benefits. Intrinsic benefits include increased energy and decreased appetite. Extrinsic benefits include social rewards such as compliments and monetary rewards.
Perceived barriers to action	Barriers are perceived unavailability, inconvenience, expense, difficulty or time regarding health behaviors
Perceived self-efficacy	Self-efficacy is one's belief that he or she is capable of carrying out a health behavior. If one has high self-efficacy regarding a behavior, one I more likely to engage in that behavior than if one has low self-efficacy.
Activity related affect	The feelings associated with a behavior will likely affect whether an individual will repeat or maintain the behavior
Interpersonal influences	I the HPM, these are feelings or thoughts regarding the beliefs or attitudes of others. Primary influences are family, peers, and health care providers.
Situational influences	These are perceived options available, demand characteristics, and aesthetic features of the environment where the behavior will take place. For example, a lovely day will increase the probability of one taking a walk; the fire code will prevent one from smoking indoors.
Commitment to a plan of action	Pender states that "commitment to a plan of action initiates a behavioral event". This commitment will compel one into the behavior until completed, unless a competing demand or preference intervenes.
Immediate competing demands and preferences	These are alternative behaviors that one considers as possible optional behaviors immediately prior to engaging in the intended, planned behavior. One has little control over competing demands, but one has great control over competing preferences
Health promoting behavior	This is the goal or outcome of the HPM. The aim of health promoting behavior is the attainment of positive health outcomes

> The model depicts complex multidimensional factors which people interact with as they work to achieve optimum health.

- **The Transtheoretical Model**

  > This model combines several theories of intervention.
  > It is based on the assumption that behavior change takes place over time, and progresses through stages
  > Each stage is stable and is open to change; Meaning one may stop in one stage, progress to the next stage or return to a previous stage.

Core constructs of the TTM	
Stages of change	
Precontemplation	Individual has no intention to take action toward behavior change in the next 6 months. May be in this phase due to a lack of information about the consequences of the behavior or due to failure on previous attempts at change.
Contemplation	The individual has some intention to take action toward behavior change in the next 6 months. Weighing pros and cons to change.
Preparation	The individual intends to take action within the next month, and has taken steps toward behavior change. Has a plan of action.
Action	The individual has changed overt behavior for less than 6 months. Has changed behavior sufficiently to reduce risk of disease
Maintenance	The individual has changed overt behavior for more than 6 months. Strives to prevent relapse. The phases may last months to years.
Decisional balance	
Pros	The benefits of behavior change
Cons	The costs of behavior change

  > Change is difficult. People may resist change for many reasons. Change may be unpleasant, require giving up pleasure, be painful, stressful, etc.

- **PRECEDE-PROCEED Model**

  > It provides a model for community assessment, health education planning, and evaluation.
  > PRECEDE, which stands for predisposing, reinforcing and enabling constructs in educational diagnosis and evaluation is used for community diagnosis.

- PROCEED, stands for policy, regulatory, and organizational constructs in education and environmental development, is a model for implementing and evaluating health programs based on PRECEDE.
- Predisposing factors: people's characteristics that motivate them toward health related behavior.
- Enabling factors: conditions in people and the environment that facilitate or impede health related behavior.
- Reinforcing factors: feedback given by support persons or groups resulting from the performance of health related behavior

CHAPTER 3: PRIMARY HEALTH CARE

SEPTEMBER 6-12, 1978 - first International Conference for PHC at Alma Ata, USSr, Russia
L.O.I. 949 - legal basis for PHC in the Philippines
- signed by Pres. Ferdinand Marcos
- THEME : **Health in the Hands of the People by 2020**

Definition - the essential care made universally accessible to individuals and families in the community through their full preparation.
Universal Goal - **Health For All by the Year 2000**
- this is achieved through community and individual self-reliance

5 KEY ELEMENTS :
1. Reducing exclusion and social disparities in health (universal coverage).
2. Organizing health services around people's needs and expectations (health service reforms).
3. Integrating health into all sectors (public policy reforms).
4. Pursuing collaborative models of policy dialogue (leadership reforms).
5. Increasing stakeholder participation.

8 Essential Health Services
E - Education for health
L - Locally endemic disease control
E - Expanded program for immunization
M - Maternal and child health including responsible parenthood
E - Essential drugs
N - Nutrition
T - Treatment of communicable and noncommunicable diseases
S - Safe water and sanitation

KEY PRINCIPLES
1. **4 A's :**
   A. **Accessibility** - distance/travel time required to get to a health care facility/services.
      - the home must be w/in 30 min. from the Brgy. health stations
   B. **Affordability** - consideration of the individual, family, community and government can afford the services
      - the out-of-pocket expense determines the affordability of health care.
      - in the the Philippines, government insurance is covered through **PhilHealth**
   C. **Acceptability** - health care services are compatible with the culture and traditions of the population.
   D. **Availability** - is a question whether the health service are offered in health care facilities or is provided on a regular and organized manner.

Examples :

* *Botika ng Bayan* and *Botika ng Bayan* - ensures the *availability* and *accessibility* of affordable essential drugs. It sells low-priced generic home remedies, OTC and common antibiotics.

* *Ligtas sa Tigdas ang Pinas* - mass door-to-door measles immunization campaign.
- target age : 9 months to below 8 y.o.

2. **Support mechanism** - there are 3 major resources:
    1. People
    2. Government
    3. Private Sectors (e.g. NGO, church…)

3. Multisectoral approach

- Intrasectoral linkages (Two - way referral sys.) — communication, cooperation and collaboration within the health sectors.
- Intersectoral Linkages - between the health sector and other sectors like education, agriculture and local gvn. officials.

4. **Community participation** - a process in which people identify the problems and needs and assumes responsibilities themselves to plan, manage, and control.

5. Equitable distribution of health resources

2 DOH programs to ensure equitable distribution:

- Doctor to the Barrio (DTTB) Program
    - the deployment of doctors to municipalities that are w/o doctors.
    - deployed to unserved, economically depressed 5th or 6th class municipalities for 2 years.
- Registered Nurses Health Enhancement and Local Service (RN HEALS)
    - training and program for unemployed nurse
    - deployed to unserved, economically depressed municipalities for 1 year.

6. **Appropriate technology** - health technology includes:
    - tools
    - drugs
    - methods
    - procedures and technique
    - people's technology
    - indigenous technology

Criteria for Appropriate health technology

- Safety
- Effectiveness

- Affordability
- Simplicity
- Acceptability
- Feasibility and Reliability
- Ecological effects
- Potential to contribute to individual and community development

R.A. 8423 - Traditional and Alternative Medicine Act of 1997 (Juan Flavier)

Medicinal Plants	Use/indication	Preparation
Lagundi	Asthma, cough and colds, fever, dysentry, pain Skin disease (scabies, ulcer, eczema), wounds	Decoction Wash affected site with decoction
Yerba Buena	Headache, stomachache Cough and colds Rheumatism, Asthritis	Decoction Infusion Massage sap
Sambong	Antiedema/antiurolithiasis	Decoction
Tsaang Gubat	Diarrhea Stomachache	Decoction
Niyog-niyogan	Antielminthic	Seeds are used
Bayabas	Washing wounds Diarrhea, gargle, toothache	Decoction
Akapulko	Antifugal	Poultrice
Ulasimang Bato/ Pansit-pansitan	Lowers blood uric acid (rheumatism and gout)	Decoction Eaten raw
Bawang	Hypertension, lowers blood cholesterol Toothache	Eaten raw/fried Apply on part
Ampalaya	Diabetes mellitus (mild non-insulin-dependent)	Decoction Steamed

Medicinal Plant Preparation

1. DECOCTION - boiling the plant material in water for 20 min.
2. INFUSION - plant material is soaked in hot water for 10 - 15 minutes.
3. POULTRICE - directly apply plant material on the affected part, usually in bruises, wounds and rashes.

4. TINCTURE - mix the plant material in alcohol.

Alternative health care modalities

Term	Definition
Acupressure	- application of pressure on acupuncture pts. w/o puncturing the skin
Acupuncture	- uses special needles to puncture and stimulate specific part of the body
Aromatherapy	- combines essential aromatic oils to then applied to the body
Nutritional therapy	-"nutritional healing", this improves health by enhancing the nutritional value to reduce the risk of the disease
Pranic Healing	- follows the principle of balancing energy
Reflexology	- application of pressure on the body's reflex joints to enhance body's natural healing.

PRIMARY CARE

- includes health promotion, disease prevention, health maintenance, counseling, patient education and diagnosis and treatment of acute and chronic illness in different health settings (American Association of Family Medicine)

- refers to the first contact of a person with a professional
- a model of nursing care that emphasizes continuity of care
- nursing care is directed towards meeting all the patient's need.

	PHC	PC
Focus of client	family and community	individual
Focus of care	promotive and preventive	curative
Decision-making process	community-centered	health worker driven
Outcome	self-reliance	reliance on health workers
Setting for services	rural-based satellite clinics; community health centers	mostly urban places; hospital, clinics
Goal	development and preventive care	absence of disease

CHAPTER 4

Community Organizing: Ensuring Health in the Hands of the People

DEFINITION OF COMMUNITY ORGANIZING:

Community organizing as a process consists of steps or activities that instill and reinforce the people's self-confidence on their own collective strengths and capabilities (Manalili, 1990). It is the development of the community's collective capacities to solve its own problems and aspire for development through its own efforts.

Community organizing is a continuous process of educating the community to develop its capacity to assess and analyze the situation (which usually involves the process of consciousness raising), plan and implement interventions (mobilization), and evaluate them.

Community Organizing is **a process of educating and mobilizing members of the community to enable them to resolve community problems.** It is a means to build the community's capacity to work for the common good in general and health goals.

Community organizing and community health nursing practice have common goals: **People empowerment, development of self-reliant community, and improved quality of life.** As a result, they become the health care professionals' partners in health care delivery and overall community development.

Community development **means improvement access to resource (**including health resources) **that will enable the people to improve their standards of living and overall quality life.**

The emphases of community organizing in primary health care are the following:

1. People from the community working together to solve their own problems.
2. Internal organizational consolidation as a prerequisite to external expansion
3. Social movement first before technical change
4. Health reforms occurring within the context of broader social transformation.

Community development is the **end goal** of community organizing and all efforts towards uplifting the status of the poor and marginalized.

Community development – entails a process of assessment of the current situation, the identification of needs, deciding on appropriate courses of actions or response, mobilization of resources to address these needs, and monitoring and evaluation by the people.

Community organizing is a value-based process, tracing its roots to *three basic values:* **human rights, social justice, and social responsibility** (LOCOA, 2005).

1. ***Human rights –*** are based on the worth and dignity inherent to all human beings: *the right to life, the right to development as persons and as a community, and the freedom to make decisions for oneself.*
2. ***Social justice-*** entails fairness in the distribution of resources *to satisfy basic needs and to maintain dignity as human beings.*
3. ***Social responsibility-*** is an offshoot of the ethical principle of solidarity, which points to people being part of one community and is reflected in concern for one another.

CORE PRINCIPLES IN COMMUNITY ORGANIZING:

Anchored on the basic values of human rights, social justice, and social responsibility, the following are the core principles and grounds for the practice of community organizing.

COMMUNITY ORGANIZING IS PEOPLE-CENTERD:

The basic premise of any community organizing endeavor is that the people are the means and ends of development, and community empowerment is the process and the outcome (Felix, 1998). It is people-centered (Brown, 1985) in the sense that the process of critical inquiry is informed by and responds to experiences and needs of the marginalized sectors/people.

Community organizing is not meant for person-to-person interaction, with only a few who will benefits from any undertakings and activities.

Community organizing is a people-centered strategy, with emphasis on the development of human resources necessitating education. The educational processes are interactive, empowering both the learners (the members of the community) and the teacher (the nurse), leading to decision making that plays a part in human development (Brown, 1985).

Community organizing is participative:

The participation of the community in the entire process-assessment, planning, implementation, and evaluation-should be ensured. The community is considered as the prime mover and determinant, rather than beneficiaries and recipients, of development efforts, including health care.

For people empowerment, community participation is a critical condition for success (Reid, 2000). In community participation decision making and responsibility are in the hands of ordinary people, not just the elite. Distinction is not made among different groups and different personalities (Reid, 2000).

Community organizing is democratic:

Community organizing should empower the disadvantage population. It is a process that allows the majority of people to recognize and critically analyze their difficulties and articulate their aspiration. Hence, their decision must reflect the will of the whole, more so the will of the *common people,* than that of the *leaders* and the *elite.*

Conflicts are inevitable in group dynamics. They are to be expected in organizing work. Thus, the organizer and community leaders require skills to effectively process and manage these conflicts.

Effort must be exerted to achieve a consensus. This requires a participative and consultative approach.

Community organizing is developmental:

Community organizing should be directed towards changing current undesirable conditions. The organizer desires changes for the betterment of the community and believes that the community shares these aspirations and that these changes can be achieved.

Beyond health or economic improvement, community organizing seeks authentic human development.

Community organizing is process-oriented:

The community organizing goals of empowerment and development are achieved through a process of change.

Community organizing is dynamic. With the evolving community situation, monitoring and periodic review of plans are necessary. Through efforts of community members to identify and deal with other problems leads to sustenance of the community organizing efforts.

PHASES OF COMMUNITY ORGANIZING:

Pre-entry:

Pre-entry involves preparation one the part of the organizer and choosing a community for partnership.

- Preparation includes knowing the goals of the community organizing activity or experience. It also necessary to delineate criteria or guidelines for site selection.
- Making a list of sources of information and possible facility resources, both government and private, is recommended.
- For the **novice organizers, preparation** includes a study or review of the basic concepts of community organizing.
- Proper selection of possible barriers, threats, strengths, and opportunities at this stage is an important determinant of the overall outcome of community organizing.

Communities may be identified through different means:

- ✓ Initial data gathered through an ocular survey
- ✓ Review of records of a health facility
- ✓ Review of the barangay/municipality profile

- ✓ Referrals from other communities or institutions or through a series of meetings
- ✓ Consultation from the local government units (LGUs) or private institutions.
- ✓ ***An ocular survey done at this stage.***
- ✓ ***Courtesy call to the Mayor***

Entry into the community:

Entry into the community formalizes the start of the *organizing process.* This is the stage where the organizer gets to know the community and the community likewise gets to know the organizer.

- An important point to remember this phase is to make **courtesy call to local formal leaders (**barangay chairperson, council members)
- Equally crucial but often overlooked is a visit to informal leaders recognized in the community, like elders, local health workers, traditional healers, church leaders, and local neighborhood association leaders.

Considerations in the entry phase:

- The community organizer's responsibility to clearly introduce themselves and their institution to the community.
- A clear explanation of the vision and mission, goals, programs, and activities must be given in all initial meetings and contacts with the community.
- Preparation for the initial visit includes gathering basic information on socioeconomic conditions, traditions including religious practices, overall physical environment, general health resources.
- the community organizer must keep in mind that the ***goal of the process is to build up the confidence and capacities of people.***
- **Manalili describe two strategies for gaining entry into a community:**
  1. ***Padrino* –** a patron, usually barangay or some other local government official. The padrino, in an effort to boost the organizer's image, tends to preset the intended project output, thereby creating false hopes.
  2. ***Bongga* –** as the easiest way to catch the attention and gain the "approval" of the community. This strategy exploits the people's weaknesses and usually involves doles-out, such free medicines.

CHAPTER 5

HEALTH PROMOTION, RISK REDUCTION AND CAPACITY BUILDING STRATEGIES

HEALTH PROMOTION - Green and Kreuter (1991)- any combination of health education and related organizational, economic and environmental supports for behavior of individual, groups or communities conducive to health
- Parse (1990)- Behavior that is motivated by the desire to increase wellbeing and to reach the best possible health potential

HEALTH PROTECTION- Parse (1990) behaviors in which one engages with the specific intent to prevent disease, detect disease in the early stages or to maximize health within constraints of disease

HEALTH RISK- The probability that a specific event will occur in a given time frame

Risk Assessment- conducted to determine health risks to individuals, groups and populations. A systematic way of distinguishing the risks posed by potentially harmful exposures

Steps of risk assessment- Hazard Identification, risk description, exposure assessment and risk estimation.

Risk factor- an exposure that is associated with a disease

3 Criteria for establishing a risk factor

1. The frequency of the disease varies by category or amount of factor.
2. The risk factor must precede the onset of the disease.
3. The association of concern must not be due to any source of error.

Two types of Risks Factors

- Modifiable Risk Factors- individual has some control
- Non- Modifiable Risk Factors- little or no control.(Ex. genetic makeup, gender, age)

Risk Reduction – a proactive process in which individuals participate in behaviors that enable them to react to actual or potential threats to their health

Risk communication- process through which public receives information regarding possible threats to health

To improve the nutritional status of the population, nutrition and education is essential. **The 10 Nutritional Guidelines for Filipinos** were developed to facilitate dissemination simple and practical messages to encourage healthy diet and lifestyle.

1. Eat variety of foods everyday
2. Breast feed infants exclusively from birth to 4-6 months and give appropriate foods while continuing breastfeeding

3. Maintain children's normal growth through proper diet and monitor their growth regularly
4. Consume fish, lean meat, poultry or dried beans
5. Eat more vegetables, fruits and root crops
6. Eat foods cooked in edible/cooking oil daily
7. Consume milk and milk products and other calcium rich foods such as small fish and dark leafy vegetables everyday
8. Use iodized salt but avoid intake of excessive intake of salty foods
9. Eat clean and safe food
10. For a healthy lifestyle and good nutrition, exercise regularly, do not smoke and avoid drinking alcoholic beverages

Sleep is essential component of chronic disease prevention and health promotion.

How much sleep do you really need?	
AGE	SLEEP NEEDS
Newborn (1-2 months)	10.5-18 hours
Infants (3-11 months)	9-12 hours during night and 30-minute to 2 our naps 1-4 times a day
Toddlers (1-3 years)	12-14 hours
Preschoolers (3-5 years)	11-13 hours
School-aged children (5-12 years)	10-11 hours
Teens (11-17 years)	8.5-9.25 hours
Adults	9 hours
Older Adults	9 hours

Sleep Hygiene (National Sleep Foundation 2010)

1. Avoid caffeine and nicotine close to bedtime
2. Avoid alcohol as it can cause sleep disruptions
3. Retire and get up at the same time everyday
4. Exercise regularly but finish all exercise and vigorous activity at least 3 hours before bedtime
5. Establish a regular relaxing bedtime routine (a warm bath, reading a book)
6. Create a dark, quiet, cool sleep environment
7. As much as circumstances allow, have comfortable beddings
8. Use the bed for sleep only. Do not read, listen to music or watch TV in bed
9. Avoid large meals before bedtime

Smoking Cessation is an important step in achieving optimum health. The American Cancer society recommends the following **Steps to Quit Smoking**:

1. Make decision to quit.
2. Set a date to quit and choose a plan
3. Deal with withdrawal through. Avoid temptation
4. Staying off tobacco is a lifelong process. Remind yourself of the reasons why you quit

Alcohol Consumption

Health authorities have defined moderation as not more than 2 drinks a day for the average sized man and not more than 1 drink a day for the average size woman

Heavy Drinking- consuming more than 2 drinks/day on average for men and more than 1 drink per day for women

Binge drinking- drinking 5 or more drinks on a single occasion for men / 4 or more drinks on a single occasion for women

Excessive Drinking- can take the form of heavy drinking/ binge drinking/ both.

Organized by the **WHO**, the **1st International Conference on Health Promotion** was held at **Ottawa, Canada** on **November 17-21, 1986.** It calls for a commitment to health promotion to achieve the goal of **Health for All by the year 2000 and beyond.**

-The charter defines health promotion as the process of enabling people to increase control over and improve their health. It is not just the responsibility of the health sector but goes beyond healthy lifestyles to well-being.

3 basic strategies for Health Promotion

1. Advocacy for health to provide for the conditions and resources essential for health
2. Enabling all people to attain their full health potential
3. Mediating among the different sectors of society to achieve health

5 priority action areas provides support for these 3 strategies:

1. Build Healthy Public Policy
2. Create Supportive Environments
3. Develop Personal Skills
4. Reorient Health Services
5. Moving into the Future

HEALTH EDUCATION- a process of changing people's knowledge, skills and attitudes for health promotion and risk reduction.

-The nurse participate in health education by empowering people so that they are able to achieve optimum health and prevent disease by bringing out lifestyle changes and reducing exposure to health risk in the environment

Basic principles that guide the Effective Nurse Educator (based on**Knowles Theory** on adult learning)

1. **Message –** send a clear/understandable message to the learner. Consider factors that may affect learner's ability to receive and retain info.
2. **Format-** strategy must match the objectives
3. **Environment –**conducive environment for learning, therapeutic and supportive relationship with the learner
4. **Experience –** organize positive and meaningful learning experience
5. **Participation-** engage learner in participatory learning by involving then in the discussion, solicit feedback
6. **Evaluation-** use tools such as quizzes, individual conferences and return demonstration

CHAPTER 6

Family Data Analysis

- Data analysis is done by comparing findings with accepted standards for individual family members and for the family unit.
- The nurse correlates findings in the different data categories and checks for significant gaps in information or the need for more details related to a finding.

System of Organizing Family Data (adapted from Nies and McEwen, 2011)

- **Family Structure and characteristics** are reflected in:
  - Data on household membership
  - Demographic characteristics
  - Family members living outside the household
  - Family mobility
  - Family dynamics (emotional bonding, authority and power structure, autonomy of members, division of labor, and patterns of communication, decision making, and problem and conflict resolution).
  - Data on family structure can be visualized clearly through graphic tools such as genogram ecomap and family tree.

- **Socioeconomic characteristics** include:
  - Data on social integration (ethnic origin, languages and dialects spoken, and social networks)
  - Educational experiences and literacy
  - Work history
  - Financial resources Leisure time interests
  - Cultural influences
  - Spirituality or religious affiliation

- **Family environment**
  - Refers to the physical environment inside the family's home/residence and its neighbourhood.

- **Family health and health behaviour** include:
  - Family's activities of daily living
  - Self care
  - Risk behaviours
  - Health history

- Current health status
- Health care resources (home remedies and health services)

Family Nursing Diagnosis

- Nursing diagnoses may be formulated at several levels:
  - As a Individual family members
  - As a family unit
  - As the family in relation to its environment/community.
- **International (NANDA-I, 2011)**
  - Serve as a common framework of expressing human responses to actual and potential health problems.

- **Family Coping Index**
  - This tool is based on premise that nursing action may help a family in providing for a health need or resolving a health problem by promoting the family's coping capacity.

Nine areas of assessment of the Family Coping Index (Freeman and Heinrich, 1981):

- **Physical Independence** – Family members' mobility and ability to perform activities of daily living (personal hygiene)
- **Therapeutic Competence –** Ability to comply with prescribed or recommended procedures and treatments to be done at home.
- **Knowledge of Health Condition –** Understanding of the health condition or essentials of care according to the developmental stages of family members.
- **Application of principles of personal and general hygiene –** practice of general health promotion and recommended preventive measures.
- **Health Care Attitudes –** family's perception of health care in general.
- **Emotional Competence –** Degree of emotional maturity of family members according to their developmental stage.
- **Family living patterns –** Interpersonal relationships among family members, management of family finances, and the type of discipline in the home.
- **Physical Environment –** includes home, school, work, and community environment that influence the health of family members.
- **Use of community facilities –** ability of the family to seek and utilize, as needed, both environment-run and private health.

Formulating the plan of Care

- Planning involves **priority setting, establishing goals and objectives, and determining appropriate interventions** to achieve goals and objectives.

- Stancope and Lancaster (2010): The nurse's role at this stage consists of offering guidance, providing information, and assisting the family in the planning process.
- Priority setting – determining the sequence in dealing with identified family needs and problems.

  - **Family safety**: A life threatening situation is given top priority.
  - **Family perception**: Priority is given to the need that the family recognizes as urgent or important.
  - **Practicality**: Together with the family the nurse looks into existing resources and constraints.
  - **Projected effects**: The immediate resolution of a family concern gives the family a sense of accomplishment and confidence in themselves and the nurse.

Establishing Goals and Objectives

- **Goal** – Desired observable family response to planned interventions in response to a mutually identified family need.
- **Objectives** – the desired step by step family responses as they work toward a goal.

- Workable, well stated objectives should be **SMART**:
- S: Specific
- M: Measurable
- A: Attainable
- R: Relevant
- T: Time bound

Determining Appropriate Interventions

Freeman and Heinrich categorize nursing interventions into three types:

1. **Supplemental interventions** – actions that nurse performs on behalf of the family when it is unable to do things for itself.
2. **Facilitative interventions** – actions that remove barriers to appropriate health action such as assisting the family to avail of maternal and early child care services.
3. **Developmental interventions** – aim to improve the capacity of the family to provide for its own health needs such as guiding the family to make responsible health decisions.

Implementing the Plan of Care

- Implementation is the step when the family or the nurse execute the plan of action.

Evaluation

- To evaluate is to determine or fix the value.
- **Formative evaluation** – judgment made about effectiveness of nursing interventions as they are implemented.

- **Summative evaluation** – determining the end results of family nursing care and usually involves measuring outcomes or the degree to which goals have been achieved.
- Aspects of evaluation:
- **Effectiveness** – determination of whether goals and objectives were attained.
- **Appropriateness** – suitability of the goals/objectives and interventions
- **Adequacy** – degree of sufficiency of goals/objectives and interventions
- **Efficiency** – relationship of resources used to attain the desired outcomes

Family-Nurse Contacts

- The family-nurse relationship is developed through family-nurse contacts, which may take the form of a **clinic visit, group conference, telephone contact, written communication, or home visit.**

- **Clinic Visit –** takes place in a private clinic health center, barangay health station.
  - Major advantage is the fact that a family member takes the initiative of visiting the professional health worker, usually indicating the family readiness to participate in the health care process.
  - Because the nurse has greater control over the environment, distraction are lessened and the family may feel less confident to discuss family health concerns.
- **Group Conference –** appropriate for developing cooperation, leadership, self-reliance and or community awareness among group members.
  - The opportunity to share experiences and practical solutions to common health concerns is a strength of this type of family-nurse contact.
- **Written Communication** – used to give specific information to families, such as instructions given to parents through school children.

Home Visit

- Home visit is a professional, purposeful interaction that takes place in the family's residence aimed at promoting, maintaining and restoring the health of the family or its members.

Advantages:

1. It allows first hand assessment of the home situation.
2. The nurse is able to seek out previously unidentified needs.
3. It gives the nurse an opportunity to adapt interventions according to family resources.
4. It promotes family participation and focuses on the family as a unit.
5. Teaching family members in the home is made easier by the familiar environment and the recognition of the need to learn as they are faced by the actual home situation.

6. The personalized nature of home visit gives family a sense of confidence in themselves and in the agency.

Disadvantages:

1. The cost in terms of time and effort.
2. There are more distractions because the nurse is unable to control the environment.
3. Nurse's safety.

Phases of Home Visit

- **Previsit phase** – Nurse contacts the family, determines the willingness for a home visit, and sets an appointment with them.
- A plan for the home visit is formulated during this phase. The ff. are specific principles in planning for a home visit:
- Being a professional contact with the family, the home visit should have a purpose.

Purposes:

- To have a more accurate assessment
- To educate the family about measures of health promotion, disease prevention and control of health problems.
- To provide supplemental interventions for the sick, disabled or dependent family member.
- To provide family with greater access to health resources in the community.

- Use information about the family collected from all possible sources such as records, other personnel or agency, or previous contacts with the family.
- The home visit plan focuses on identified family needs, particularly needs organized by the family as requiring urgent attention.
- The client and the family should actively participate in planning for continuing care.
- The plan should be practical and adaptable.

In-home phase

- This phase begins as the nurse seeks permission to enter and lasts until he or she leaves the family's home. It consists of initiation, implementation, and termination.
- **Initiation** – It is customary to knock or ring the doorbell and at the same time, in areasonably loud but nonthreatening voice say, "Tao po. Si Jenny poi to, nurse sa health center?."

- On entering the home, the nurse acknowledges the family members with a greeting and introduces himself and the agency he represents.
- Observes environment for his own safety and sits as the family directs him to sit.
- Establish rapport by initiating a short conversation.
- States the purpose of the visit the source of information.

- **Implementation** – Involves the application of the nursing process, assessment, provision of direct nursing care as needed, and evaluation.

- **Termination** – Consists of summarizing with the family the events during the home visit and setting a subsequent home visit or another form of family-nurse contact.
- Use this time to record findings, such as vital signs of family members and body weight.

Postvisit phase

- Takes place when the nurse has returned to the health facility.
- Involves documentation of the visit.

The Nursing Bag

- Frequently called the PHN bag is a tool used by the nurse during home or community visits to be able to provide care safely and efficiently.
- Serves as a reminder of the need for hand hygiene and other measures to prevent the spread of infection.
- Nursing bag usually has the ff. contents:
- Articles for infection control
- Articles for assessment of family members
- Note that the stethoscope and sphygmomanometer are carried separately.
- Articles for nursing care
- Sterile items
- Clean articles
- Pieces of paper

Use of the Nursing Bag

- Bag technique helps the nurse in infection control.
- Bag technique allows the nurse to give care efficiently.
- It saves time and effort by ensuring that the articles needed for nursing care are available.
- Bag technique should not take away the nurse's focus on the patient and the family.
- Bag technique may be performed in different ways, principles of asepsis are of the essence and should be practiced at all times.

For infection control the ff. activities should be practiced during home visits:

1. Remember to proceed from "clean" to "contaminated".
2. The bag and its contents should be well protected from contact with any article in the patient's home.
3. Line the table/flat surface with paper/washable protector on which the bag and all of the articles to be used are placed.
4. Wash your hands before and after physical assessment and physical care of each family member.
5. Bring out only the articles needed.
6. Do not put any of the family's articles on your paper lining/washable protector.
7. Wash your articles before putting them back into you bag.

8. Confine the contaminated surface by folding the contaminated side inward.
9. Wash the inner cloth lining of the bag as necessary.

Chapter 7

The nursing process in the care of the community

A community is a group of people who:

- Have a common interest or characteristics
- Interact with one another
- Have sense of unity or belonging
- Function collectively within a defined social structure to address common concerns

A community may be phenomenological (functional) or geopolitical (territorial)

Principals of community health nursing

1. Community is the focus of care, nurse responsibility is to the community as a whole
2. Give priority to community needs
3. Work with the community as an equal partner of the health team
4. Focus on primary prevention for appropriate activities
5. Promote a healthful physical and psychosocial environment
6. Reach out to all who may benefit from a specific service
7. Promote optimum use of resources
8. Collaborate with others working in the community health

Conditions in the community affecting health

- **People**
- **Location**
- **Social system**

Characteristics of a healthy community

- a shared sense of being a community based on history and values
- general feeling of empowerment
- existing structures that allow subgroups within the community to participate in decision making
- the ability to cope with change, solve problems, and manage conflicts within the community through acceptable means
- open channels of communication

- equitable and efficient use of community resources

Aims

1. achieve a good quality life
2. create a health supportive environment
3. provide basic sanitation
4. supply access to health care

Community Assessment

the data needed to be collected depend on the objectives of community assessment. In general, the nurse needs to collect data on the nurse needs to collect data on three categories of community health. Determinants: people, place and social system.

DATA COLLECTED FOR THE HEALTH P.A.T.C.H(planed approach to community health)
PROCESS FOR HEALTH PLANING

1. community profile: demographic educational and economic data
2. morbidity and mortality data, including unique health events(e.g., completion of barangay health station, a typhoon that caused flooding of residential areas)
3. behavioral data focusing on behavioral risk factors, such as smoking, drinking and leading a sedentary life style, and prevailing good health practices in the community, such as breast feeding and getting regular exercise
4. opinion data from community leaders, such as what they think about the main health problems of the community their causes, measures that may alleviate or correct them

*problem oriented assessment is focused on a particular aspect of health: focusing on what's problem the community have in mind

TOOLS IN COMMUNITY ASSESSMENT

Collecting primary data

Observation

- ocular survey/ windshield survey

Survey

Informant interview

- talks to the community people
- key informants: consist of formal and informal community leaders or persons of position and influence

Community forum

- pulong – pulong sa barangay

focus group

Secondary data source

- health records and reports
  field health service information (FHSIS) recording and reporting tools
  FHSIS is as basis for

1.priority setting by local goverments
2. planning and decision making at different levels(barangay, municipality, district, provincial, and national)
3. monitoring and evaluating health program implementation

The FHSIS manual of operations

1.individual treatment record(ITR)(building block of FHSIS)
-health workers are advised not to rely on client-maintained
2.targent client list
a.tcl for prenatal care
b. tcl for postpartum care
c. tcl of under 1-year-old children
d. tcl for family planning
e. tcl for sick children
f. national tuberculosis program regiser.
g. national leprosy control program central registration form
3. summary table (accomplished by midwife)
4. monthly consolidation table(MTC)

The reporting forms, as enumerated in the FHSIS manual of operations

1. monthly forms(regularly prepared by the midwife and summited to the nurse)
a.program report(m1)
contains indicators categorized as maternal care, child care, family planning
b. morbidity report(m2)
contains list of all cases of disease by age and sex.
2.quarterly forms(prepared by the nurse)
a.program report(q1)
3-month total indicators categorized as maternal care, family planning child care, dental health and disease control
b.morbidity
3. annual forms
a. A-BHS
demographic, environmental, and natality data
b. annual form 1 (a-1)
prepared by the nurse and is the report of the RHU or health center . it contains demographic and environmental data and data on natality and mortality for the entire year
c. annual form 2 (a-2)
prepared by the nurse, is the yearly morbidity report by age and sex
d. annual for 3(a-3)
prepared by the nurse, yearly report of all mortality by age and sex
disease registry census data

COMMUNITY DIAGNOSIS

Community diagnosis is the process of determining the health status of the community and the factors responsible for it.

In this phase the, the health workers makes a judgement about the community's health satus, resources and health action potential or likely hood that the community will act to meet health needs to resolve health problems. *And this consist of:*

- the health risk or specific problem to which the community is exposed.
- The specific aggregate or community with whom the nurse will be working to deal with the risk or problem.
- Related factors that influence how the community will respond to the health risk or problem application of this nursing diagnosis

Planning Community Health Interventions

As in other fields of nursing practice, planning for community health interventions is based on findings during **assessment** and formulated **nursing diagnosis.**

PLANNING phase – involves priority setting, formulating goals and objectives, and deciding on community interventions.

- Active participation of the people
- To foster participation, the community should have genuine representation in the planning group.
- Deciding on community representatives will be facilitated if the community has been organized earlier.

Priority Setting

- Provides the nurse and the health team with a logical means of establishing priority among the identified health concerns.

Criterias to decide on a community health concern for intervention according to The World Health Organization (WHO):

1. **Significance of the problem**

- is based on the number of people in the community affected by the problem or condition.

If the concerns are:

DISEASE CONDITION – this may be estimated in terms of its prevalence rate.

POTENTIAL PROBLEM – its significance is determined by estimating the number of people at risk of developing the condition.

2. The level of **community awareness** and the priority its members give to the health concern is a MAJOR consideration. Related to the priority that the community gives to the health concern, **Shuster and Goeppinger (2004)** also mention community motivation to deal with the condition.

3. **Ability to reduce risk**

- is related to the availability of expertise among the health team and the community itself.
- Involves the health team's level of influence in decision making related to actions in resolving the community health concern.

4. **Cost of reducing risk**

- The nurse has to consider economic, social, and ethical requisites and consequences of planned actions.

5. **Ability to identify the target population**

- For the intervention is a matter of availability of data sources, such as FHSIS, census, survey reports, and case-finding or screening tools.

6. **Availability of resources**

- to intervene the reduction of risk entails technological, financial, and other material resources of the community, the nurse, and the health agency.

For a realistic and useful outcome, the **priority-setting process** requires the joint effort of the community, the nurse, and other stakeholders, such as the other members of the health team.

- The group defines guidelines for discussion, particularly on the manner of reconciling differences of opinion.
- Shuster and Goeppinger (2004) suggested a flexible process using the nominal group technique wherein each group member has an equal voice in decision making, thereby avoiding control of the process by the more dominant members of the group.
- This technique is appropriate for **brainstorming** and **ranking ideas**, when consensus-building is desired over making a choice based on the opinion of the majority.
- The group makes a list of the identified community health problems or conditions. Each of the identified problems is treated separately according to a set of criteria agreed upon by the group such as those suggested by the WHO.

As suggested by Shuster and Goeppinger (2004), the following steps are carried out:

1. From a scale of 1 to 10, being the lowest, the members give each criterion a weight based on their perception of a weight based on their perception of its degree of importance in solving the problem.
2. From a scale of 1 to 10, being the lowest, each member rates the criteria in terms of the likelihood of the group being able to influence or change the situation.
3. Collate the weights (from step 1) and ratings (from step 2) made by the members of the group.
4. Compute the total priority score of the problem by multiplying collated weight and rating of each criterion.
5. The priority score of the problem is calculated by adding the products obtained in step 4

After repeating the process on all identified health problems, compare the total priority scores of the problems. The problem with the highest total priority score is assigned top priority, the next highest is assigned to second, and so on.

FORMULATING GOALS AND OBJECTIVES

Goals are the desired outcomes at the end of interventions, whereas objectives are the short-term changes in the community that are observed as the health team and the community work towards the attainment of goals.

Objectives serve as instructions, defining what should be detected in the community as interventions are being implemented.
Specific, measurable, attainable, relevant, and time-bound (SMART) objectives provide a solid basis for monitoring and evaluation.

Deciding on community interventions
The group analyzed the reasons for the people's health behavior and directs strategies to respond to the underlying causes. For example, reasons for preference of home delivery over facility-based delivery should be identified. If the majority of the women would choose to have a home delivery because of cost or lack of access of birthing facilities, strategies should then be focused on improving facility-based services. But if the primary reason is sociocultural, the planning team may opt to concentrate on providing opportunities for skills development of traditional birth attendants and/or exerting effort to gain the trust and confidence of the women and their families.

In the process of developing the plan, the group takes into consideration the demographic, psychological, social, cultural, and economic characteristics of the target population on one hand and the available health resources on the other hand.

Implementing the community health interventions

- Often referred to as the action phase, implementation is the most exciting phase for most health workers. Aside from being able to deal with the recognized priority health

concern, the entire process is intended to enhance the community's capability in dealing with common health conditions/problems.

- The nurses role therefore may be to facilitate the process rather than directly implement the process rather than directly implement the planned interventions.
- Implementation also entails coordination of the plan with the community and the other members of the health team. This requires a common understanding of the goals, objectives and planned interventions among the members of the implementing group.
- Collaboration with the other sectors such as the local government and other agencies may also be necessary.

Evaluation of community health interventions

Evaluation approaches may be directed structure, process, and outcome.

Structure evaluation involves looking into the manpower and physical resources of the agency responsible for community health interventions.
Process evaluation is examining the manner by which assessment, diagnosis, planning, implementation, and evaluation were undertaken.
Outcome evaluation is determining the degree of attainment of goals and objectives.

Ongoing evaluation or monitoring is done during implementation to provide feedback on compliance to the plan as well as on need for changes in the plan to improve the process and outcomes of interventions.

STANDARD OF EVALUATION
The bases for a good evaluation are its utility, feasibility, propriety, and accuracy. (CDC, 2011)

Utility is the value of the evaluation in terms of usefulness of results. The evaluation of community health interventions will be great use to the community health group, as it helps the group gain insight into strengths and weaknesses of the plan and the manner of its implementation.

Feasibility answers the question of whether the plan for evaluation is doable or not, considering available resources. Resources include facilities, time, and expertise for conducting the evaluation.

Propriety involves ethical and legal matters. Respect for the worth and dignity of the participants in data collection should be given due consideration. The results of evaluation should be truthfully reported to give credit where it is due and to show the strengths and weaknesses of the community: strengths to encourage further growth and weaknesses for remedial action, if possible.

Accuracy refers to the validity and reliability of the results of evaluation. Accurate evaluation begins with accurate documentation while the community health process is ongoing.

CHAPTER 8

APPLICATIONS OF EPIDEMIOLOGY IN COMMUNITY HEALTH

EPIDEMIOLOGY- is the study of the DISTRIBUTION and DETERMINANTS of health-related states or events in specified populations, and the application of this study to the prevention and control of health problems

DISTRIBUTION- refers to the analysis by time, places and classes of people affected.

DETERMINANTS- include all the biological, chemical, physical, social, cultural, economic, genetic, and behavioral factors that influence health.

PRACTICAL APPLICATIONS OF EPIDEMIOLOGY

1. Assessment of the health status of the community or community diagnosis
2. Elucidation of the natural history of disease
3. Determination of disease causation
4. Prevention and control of disease
5. Monitoring and evaluation of health interventions
6. Provision of evidence for policy formulation

TYPES OF HEALTH INDICATORS AND THEIR EXAMPLES

TYPE OF HEALTH INDICATOR	EXAMPLES
Health status indicators (morbidity)	Prevalence, incidence
Health status indicators (mortality)	Crude and specific death rates, maternal mortality, infant mortality, neonatal mortality, postnatal mortality, child mortality, etc.
Population indicators	Age-sex structure of the population, population density, migration, population growth (crude birth rate, fertility rate)
Indicators for the provision of health care	Access to health programs and facilities, availability of health resources (facilities, health

	manpower, finances)
Risk reduction indicators	Causes consulting health provider., infants exclusively breast-fed for the first 6 months
Social and economic indicators	Quantity of suspended particulate matter, hydrocarbons, oxidants. Portability of drinking water
Disability indicators	DALYs, indicators of restricted activity, indicators of long-term disability
Health policy indicators	Allocation of manpower and financial resources, mechanisms for community participation, collaboration between government and non-government organizations

Health indicators- these are quantitative measures usually expressed as rates, ratio, or proportions that describe and summarize various aspects of the health status of the population. These are also used to determine factors that may contribute to a causation and control of diseases, indicates priorities for resource allocation, monitors implementation off health programs, and evaluates outcomes oh health programs.

- MORBIDITY INDICATORS – are generally based on the disease specific incidence or prevalence for the common and severe diseases such as malaria, diarrhea, and leprosy.

(P) Prevalence proportion measures the total number of existing cases of disease at a particular point in time divided by the number of people at the point in time. Thus, if the point in time is the time of examination, then the denominator is the number of people examined.

Prevalence can be calculated by:

$$P = \frac{\text{number of existing cases of a disease at a particular point in time}}{\text{Number of people examined at that point in time}} \times F$$

- Where F is any number of the base 10 that is used as a multiplier to avoid having decimals as the final value of the indicator.
- Incidence – measures the number of new cases, episodes, or events occurring over a specified period of time, commonly a year within a specified population at risk.

FACTORS AFFECTING PREVALENCE

Increased by	Decreased by
Longer duration of the disease	Shorter duration of the disease
Prolongation of life of patients without care	High case-fatality rate from disease
Increase in new cases	Decrease in new cases
In-migration of cases	In-migration of healthy people
Out-migration of healthy people	Out-migration of cases

In-migration of susceptible people	Improved cure rate of cases
Improved diagnostic facilities	

- Cohort- is a group of people who share a common defining characteristics.

INCIDENT DENSITY RATE- is computed using the total person-time at risk for the entire cohort as the denominator

- This indicators measures the average instantaneous rate of disease occurrence.

ID= number of new cases that develop during the period X F
Sum of person-time at risk

MORTALITY INDICATORS

Crude death rate (CDR) – the rate with which mortality occurs in a given population. It is computed as

CDR= Number of deaths in a calendar year
Midyear population X 1,000

- ✓ Factors affecting CDR includes age, sex composition of the population, the adverse environmental and occupational conditions.
- Specific mortality rate – shows rate of dying in a specific population groups.

SMR= number of deaths in a specified group in a calendar year
Midyear population of the same specified group X F

- Cause-of-death rate – identifies the greatest threat to the survival of the people, thereby pointing to the need for preventing such deaths.

CODR= number of deaths from a certain cause in a calendar year X F
Midyear population

- Infant mortality rate – is a good index of health in a community because infants are very sensitive to adverse environmental conditions. Thus, a high IMR means low levels of health standards that may be secondary to poor maternal health and child health care, malnutrition.

IMR= deaths under 1 year of age in a calendar year
Number of live births in the same year X 1,000

- Neonatal mortality rate and postnatal mortality rate add up to the IMR. The reason for such division is that the causes of neonatal deaths, that is, deaths among infants less than 28 days old are due mainly to prenatal or genetic factors.

NMR= number of deaths among those under 28 days of age in a calendar year X 1,000
Number of live births in the same year

PNMR= number of deaths among those under 28 days of age
To less than 1 year of age in a calendar year X 1,000
Number of live births in the same year

- Maternal death - death of a female from any cause related to or aggravated by pregnancy or its management during pregnancy and childbirth or within 42 days of termination of pregnancy, irrespective of the duration and the site of the pregnancy.

MMR= number of deaths due to pregnancy, delivery, puerperium in a calendar year X 100
Number of live births in the same year

- Case fatality rate – is the proportion of cases that end up fatally. It gives the risk of dying among persons afflicted within particular disease.
    - It is similar to an incidence proportion because it also a measure of average risk.

CFR= number of deaths from a specified cause
Number of cases of the same disease X 100

POPULATION INDICATORS

Include not only the population growth indicators but also other population dynamics that can affect the age-sex structure of the population and vice versa.

- Crude birth rate- measures how fast people are added to the population through births.
    - Measure of population growth.

CBR= number of registered live births in a year X 1,000
Midyear population

- ✓ A CBR greater than or equal to 45/1,000 live births implies high fertility while a level less than or equal to 20/1,000 live births implies low fertility.

EXAMPLES OF HEALTH MILLENIUM DEVELOPMENT GOALS AND HEALTH INDICATORS

Goal/Target	Health targets	Health indicators
Goal: 4 Target: 5	Reduce child mortality Reduce by two-thirds between 1990 and 2015, the under-five mortality rate	Under-five mortality rate Infant mortality rate Proportion of 1 year old children immunized against measles
Goal: 5 Target: 6	Improve maternal health Reduce by three quarters between 1990 and 2015 the maternal mortality ratio	Maternal mortality ratio Proportion of births attended by skilled personnel
Goal: 6 Target: 7 Target 8	Combat HIV/AIDS, malaria and other diseases Have halted by 2015 and begun to reverse the spread of HIV/AIDS Have halted by 2015 and begun to reverse the incidence of malaria and other diseases	HIV prevalence among pregnant women aged 15-24 years Condom use rate of the contraceptive prevalence rate Ratio of school attendance of orphans to school attendance of no orphanage aged 10-14 years Prevalence and death rates associated with malaria Proportion of population in malaria risk areas using effective malaria prevention and treatment measures Prevalence and death rates associated with TB Proportion of TB cases detected and cured under

		DOTS

- General fertility rate- is a more specific rate than CBR since births are related to the segment iof the population deemed to be capable of giving birth, that is, the women in the reproductive age groups.

GFR= number of registered live births in a year
Midyear population of women 15-44 years of age X 1,000

- Population pyramid – is a graphical representation of the age-sex composition of the population that should also be examined during the assessment of the health status of the community.

SOURCES OF HEALTH DATA

Census	Hospital data
Vital registration system	Health insurance
Disease notification	School health program
Disease registers	Downloadable data sets
Surveillance system	Surveys

- Disease registry- is a compilation of information about a particular disease.
  - The aim of disease registry is to include all cases of the disease in the registry without duplication.

DISEASES SURVEILLANCE SYSTEMS IN THE PHILIPPINES

1. Notifiable Disease Reporting System (NDRS)
2. Field Health Service Information System (FHSIS)
3. National epidemiology Sentinel Surveillance System (NESSS)
4. Expanded Program on Immunization Surveillance System (IPE Surveillance)
5. HIV/AIDS Registry

STAGES IN THE NATURAL HOSTORY OF DISEASE AND THE LEVELS OF PREVENTION

Stage of susceptibility	Stage of subclinical disease	Stage of clinical disease	Resolution stage
• The person is not yet sick but may be exposed to the risk factors of the disease,	• The person is still apparently healthy since clinical manifestations of the disease	• The patient now manifests recognizable signs and symptoms for example,	• The patient either recovers completely from the disease

for instance, multiple sex partners in the case of cervical cancer. • Primary level of prevention such as health education and immunization	are not yet shown, although pathologic changes have already occurred. • Secondary level of prevention like Pap smear can detect this early stage so that prompt treatment can be initiated to avoid progression of the disease.	vaginal bleeding. • Tertiary level of prevention is applicable to limit the disability and restore the functional capability of the patient.	becomes a chronic case with or without disability or dies.

Chapter 9

The Health Care Delivery System

A nation's health care delivery system has a tremendous impact not only the health of its people but also on their total development including their socioeconomic status. Anderson and Mcfarlene (2011) emphasized the role of the following factors in shaping 21st century health that further influence health care delivery system:

1. Health care "reforms"
2. Demographics
3. Globalization
4. Poverty and growing disparities
5. Social disintegration

World Health Organization (WHO) as this specialized agency of the United Nations (UN) provides global leadership on health matters. In the Philippines, health services are provided by the government and the private sector – for profit as well as nonprofit, with the latter frequently referred to as nongovernmental organizations or NGO's. In the national level, director is set by department of health (DOH) by virtue of mandate of the Local Government Code (R.A.7160) LGU's should have operating mechanism to meet the priority needs and service requirements of their communities. Basic Health Services are regarded as priority services for which LGU's are primary responsible.

A Health System consists of all organizations, peoples, and actions whose primary intent is to promote, restore, or maintain health. A health system has six building blocks or components:

1. Service delivery
2. Health workface
3. Information
4. Medical products, vaccines, and technologies
5. Financing
6. Leadership and governance or Stewardship.

The World Health Organization

The WHO constitution came into force on April 7, 1948. Since then April 7 has been celebrated each year as World Health Day. The WHO constitution states that its objective is the attainment of all peoples of the highest possible level of health. To attain its objective, WHO carries out the following core functions:

- Providing leadership on matters critical to health and engaging partnerships where joint action is needed. WHO has 193 members of countries and 2 associate members. WHO and its members work with UN agencies, NGO's and the private sector. The WHO country focus is directed toward providing technical collaboration with member states with accordance with each country's needs and capacities.
- Shaping the research agenda and stimulating the generation, translation, and disseminating valuable knowledge. The WHO strategy on research for health has 5 goals:
    1. Capacity- in reference to capacity-building to strengthen the national health research system
    2. Priorities – to focus research on priority health need particularly in low and middle income countries
    3. Standards - to promote good research practice and enable the greater sharing of research evidence, tools, and materials
    4. Translation - to ensure that quality evidence is turned into products and policy
    5. Organization – to strengthen the research culture within WHO and improve the management and coordination of WHO research activities.

- Setting norms and standards and promoting and monitoring their implementation. WHO develops norms and standards for various health and health –related issues, such as pharmaceutical products including vaccines and other biological products used in immunization, practices in maternal and child care, and environmental conditions.
- Articulating ethical and evidence-based policy options. Through its Department of Ethics and Social Determinants, WHO is evolved in various issues on health ethics. In collaboration with other governmental and nongovernmental organizations, WHO has worked on bioethical concerns such as those related to human organ and tissue transplantation, reproductive technology and public health response to threats of infectious diseases like AIDS, influenza, and tuberculosis.
- Providing technical support, catalyzing change, and building sustainable institutional capacity. WHO offers technical support training to its member countries in the fields of maternal and child health, control of diseases, and environmental health services. WHO

is involved in monitoring the health situation and assessing health trends. WHO has developed guidance and tools and measurement, monitoring and evaluation.

The Millennium Development Goals

On September 6 to 8, 2000, world leaders on UN General Assembly participate in Millennium Summit. The result of the summit was a resolution entitled United Nations Millennium Declaration. In this declaration, the world leaders recognized their collective responsibility to uphold the principles of human dignity, equality and equity at the global level.

The declaration expressed the commitment of the 191 member states, including the Philippines, to reduce extreme poverty and achieve seven other targets - now called the Millennium Development Goals (MDG's) by the year 2015.

The following are the eight MDG's and the targets corresponding to health-related MDG's 4,5, and 6:

1. Eradicate extreme poverty and hunger.
2. Achieve universal primary education.
3. Promote gender equality and empower women.
4. Reduce child mortality. Target: reduce by 2/3, between 1990 and 2015, the under-five mortality rate.
5. Improve maternal health. Target:
    a. Reduce by three quarters the maternal mortality ratio
    b. Achieve universal access to reproductive health
6. Combat HIV/AIDS, malaria and other diseases. Targets:
    a. Have halted by 2015 and begun to reverse the spread of HIV/AIDS
    b. Achieve by 2010, universal access to treatment for all those who need it
    c. Have halted by 2015, and begun to reverse the incidence of malaria and other major diseases.
7. Ensure environmental sustainability
8. Develop a global partnership for development

The Philippine Health Care Delivery System

The DOH serves as the main governing body of health services in the country. The DOH provides guidance and technical assistance to LGUs through the center for health development in each of the 17 regions. Provincial governments are responsible for administration of provincial and district hospitals. Municipal and city governments are in charge of primary care through rural health units (RHUs) or health centers. Satellite outposts known as barangay health stations (BHSs) provide health services in the periphery of the municipality or city.

The private sector is composed of for-profit and nonprofit agencies this sector provides all levels of services and accounts for a large segment of health service providers in the country. About 30% of Filipinos utilize private health facilities. Estimated 60% of national health expenditure goes to the private sector which employs more than 70% of the health professionals in the Philippines.

Financing of health services is provided by three major groups: The government (national and local), private sources and social health insurance. The National Insurance Act of 1995 (R.A. 7875) created by the Philippine Health Insurance Corporation (PhilHealth). It is tax-exempt government corporation attached to the DOH for policy coordination and guidance, and aims for universal health coverage of all Filipino citizens.

The Department of Health

The DOH is the national agency mandated to lead the health sector towards assuring quality health care for all Filipinos.

DOH Vision: is to be a global leader for attaining better health outcomes, competitive and responsive health care system, and equitable health financing.

DOH Mission: to guarantee equitable, sustainable and quality health for all Filipinos, especially the poor, and to lead the quest for excellence in health.

In the pursuit of its vision and execution of its mission, the following has the major roles:

1. Leader in health
2. Enabler and capacity builder
3. Administrator of specific services

The DOH core values reflect adherence to the highest standards of work namely:

1. Integrity
2. Excellence
3. Compassion and respect for human dignity
4. Commitment
5. Professionalism
6. Teamwork

7. Stewardship

The DOH carries out its work through the various central bureaus and services in the central office, Center for Health Development (CHD) in every region, DOH- attached agencies, and DOH-retained hospitals.

Levels of Health Care Delivery

The DOH issued administrative order 2012-0012 (Rules and Regulations Governing the new Classification of Hospitals and Other Health Facilities in the Philippines) that provides for a new classification scheme of health facilities.

<table>
<tr><th>Hospitals</th><th>Other Health Facilities</th></tr>
<tr><td rowspan="3">General
• Level 1
• Level 2
• Level 3 (teaching/ training</td><td>A. Primary Care Facility</td></tr>
<tr><td>B. Custodial facility</td></tr>
<tr><td>C. Diagnostic/ Therapeutic facility</td></tr>
<tr><td>Specialty</td><td>D. Specialized outpatient facility</td></tr>
</table>

DOH administrative Order 2012-0012 classifies other health facilities as follows:

Category A. Primary Health Care Facility – a first contact health care facility that offers basic service including emergency services and provision for normal deliveries.

1. Without in-patient beds like health centers, out-patient clinics, and dental clinics.
2. With in-patient beds – a short-stay facility where the patient spends on the average of one to two days before discharge.
   Ex: Infirmaries and birthing (Lying-in) facilities.

Category B. Custodial Care Facility – a health facility that provides long-term care, including basic services like food and shelter, to patients with chronic conditions requiring ongoing health and nursing care due to impairment and a reduced degree of independence in activities of daily living, and patients in need of rehabilitation.

Ex: Custodial health care facilities, substance/drug abuse treatment and rehabilitation centers, sanitaria, leprosaria, and nursing homes.

Category C. Diagnostic/Therapeutic Facility - a facility for the examination of the human body, specimens from the human body for the diagnosis, sometimes treatment of disease or water for drinking analysis. The test covers the preanalytical, analytical and post analytical phases of examination.

Category D. Specialized outpatient facility – a facility that performs highly specialized procedures on a outpatient basis.

Ex: Dialysis clinic, ambulatory surgical clinic, cancer chemotherapeutic center/clinic, cancer radiation facility, and physical medicine and rehabilitation center/clinic.

The Rural Health Unit

The RHU, commonly known as health center, is a primary level health facility in the municipality. The focus of RHU is preventive and promotive health services and the supervision of BHSs under its jurisdiction. The recommended ratio of RHU to catchment population is 1 RHU: 20,000 populations.

The BHS is the first contact health care facility that offers basic services at the barangay level. It is a satellite station of the RHU. It is manned by Volunteer Barangay Health Workers (BHW's) under the supervision of Rural Health Midwife (RHM).

The Rural Health Unit Personnel

The Municipal Health Officer (MHO) or Rural Health Physician heads the health services at the municipal level and carries out the following roles and functions:

1. Administrator of the RHU
    a. Prepares the municipal health plan and budget
    b. Monitors the implementation of basic health services
    c. Management of the RHU staff
2. Community physician
    a. Conducts epidemiological studies
    b. Formulates health education campaigns on disease prevention
    c. Prepares and implements control measures or rehabilitation plan
3. Medico-legal officer f the municipality.

The revised implementing rules and regulations (IRRSs) of R.A. 7305 or the Magna Carta of Public Health Workers stipulate that there be one rural health physician to a population of 20,000.

Local Health Boards

- R.A 7160 or Local Government Code was enacted to bring about genuine and meaningful local autonomy.
- This will enable local governments to attain their fullest development as self-reliant communities and make them more effective partners in the attainment of national goals.
- *Devolution* refers to the act by which the national government confers power and authority upon the various LGU's to perform specific functions and responsibilities.
- R.A 7160 provided for the creation of the Provincial Health Board and the City/Municipal Health boards, or Local Health Boards.

The functions of local health boards are as follows:

1. Proposing to the *Sanggunian* annual budgetary allocations for the operation and maintenance of health facilities and services within the province/city/municipality;
2. Serving as an advisory committee to the *Sanggunian* on health matters; and
3. Creating committees that shall advise local health agencies on various matters related to health service operations.

The Health Referral System

- A *referral* is a set of activities undertaken by a health care provider or facility in response to its inability to provide the necessary health intervention to satisfy a patient's need.
- A functional referral system is one that ensures the continuity and complementation of health and medical services.
- It usually involves movement of a patient from the health center of first contact and the hospital at first referral level.
- When hospital intervention has been completed, the patient is referred back to the health center. This accounts for the term *two-way referral system.*
- Referrals may be internal or external
- Internal referrals – occur within the health facility; may be made to request for an opinion or suggestion, comanagement, or further management or specialty care.
- External referral – is a movement of a patient from one health facility to another. It may be vertical, where the patient referral may be from a lower to a higher level of health facility or the other way round.

The Inter-Local Health Zone

- The referral system functioning within the context of the Inter-Local Health Zone (ILHZ) provides a means for consolidating health care efforts.
- The ILHZ is based on the concept of the District Health System, a generic term used by WHO to describe an integrated health management and delivery system based on a defined administrative a geographical area.
- An ILHZ has a defined catchment population within a defined geographical area, it has a central or core referral hospital and a number of primary level facilities such as RHUs and BHSs.

The ILHZ has the following components:

- **People.** Although WHO has described the ideal population size of a health district between 100,000 and 500,000, the number of people may vary from zone to zone, especially when taking into consideration the number of LGUs that will decide to cooperate and cluster.
- **Boundaries.** Clear boundaries between ILHZs establish accountability and responsibility of health service providers.
- **Health facilities.** RHUs, BHSs, and other health facilities that decide to work together as an integrated health system and a district or provincial hospital, serving as the central referral hospital.
- **Health workers.** To deliver comprehensive services, the ILHZ health workers include personnel of the DOH, district or provincial hospitals, RHUs, BHSs, private clinics, volunteer health workers from NGOs, and community based organizations.

Health Sector Reform: Universal Health Care

- Also called the Aquino Health Agenda, is the latest in a series of continuing efforts of the government to bring about health sector reforms.
- UHC was built upon strategies of two previous platforms of reform: the initial Health Sector Reform Agenda and FOURmula One for health.

Goals and Objectives

1. Better health outcomes
2. Sustained health financing, and
3. A responsive health system by ensuring that all Filipinos, especially the disadvantaged group, have equitable access to affordable health care.

Strategic thrusts

The attainment of the goal of UHC is through the pursuit of three strategic thrusts:

A. Financial risk protection through expansion in NHIP enrollment and benefit delivery
B. Improved access to quality hospitals and health care facilities
C. C. attainment of the health-related MDGs

To achieve the three strategic thrusts, six strategic instruments shall be optimized:

1. Health financing - instrument to increase resources for health that will be effectively allocated and utilized to improve the financial protection of the poor and the vulnerable sectors.
2. Service delivery – instrument to transform the health service delivery structure to address variations in health service utilization and health outcomes across socioeconomic variables.
3. Policy, standards, and regulation – instrument to ensure equitable access to health services, essential medicines, and technologies of assured quality, availability and safety.
4. Governance for health – instrument to establish the mechanisms for efficiency, transparency, and accountability, and prevent opportunities for fraud.
5. Human resources for health – instrument to ensure that all Filipinos have access to professional health care providers the appropriate level of care.
6. Health information – instrument to establish a modern information system that shall:
   a. Provide evidence for policy and program development;
   b. Support for immediate and efficient provision of health care and management of province-wide health systems.

Public Health programs

1. Reproductive and maternal health: prepregnancy services and care during pregnancy, delivery, and postpartum period
2. Expanded *Garantisadong Pambata* (child health): advocacy for exclusive breastfeeding in the first 6 months of life, newborn screening program, immunization, nutrition services, and integrated management of childhood illness.
3. Control of communicable disease such as tuberculosis, mosquito-borne diseases, rabies, schistosomiasis, and sexually transmitted infections
4. Control of noncommunicable or lifestyle diseases
5. Environmental health

CHAPTER 10

Maternal, Newborn, and Child health and Nutrition

Maternal, Newborn, and Child health and Nutrition Strategy

Four Key Strategies of MNCHN

1. Ensuring universal access to and utilization of MNCHN core package services and interventions directed not only to individual women of reproductive age and newborns at different stages of the life cycle.
2. Establishment of a service delivery network at all levels of care.
3. Organized use of instruments for health systems development
4. Rapid build-up of institutional capacities of DOH and PhilHealth.

MNCHN aims to achieve the following intermediate results:

1. Every pregnancy is wanted, planned, and supported
2. Every pregnancy is adequately managed throughout its course.
3. Every delivery is facility-based and managed by skilled birth attendants or skilled health professionals
4. Every mother-and-newborn pair secures proper postpartum and newborn care with smooth transition to women's health care package for the mother and child survival package for the newborn.

MNCHN core package of services

a paradigm shift from the risk approach that focuses on identifying pregnant women at risk of complications to one that considers **all pregnant women at risk of such complications**

Prepregnancy package

1. Nutrition
    - Nutritional counselling
    - Promotion of use of iodized salt
    - Provision of micronutrient supplementation
2. Promotion of healthy lifestyle including advice relative to smoking cessation, healthy diet, regular exercise, and moderate alcohol drinking
3. Advice on family planning and provision of family planning services
4. Prevention and management of lifestyle-related diseases like diabetes and cardiovascular disease
5. Prevention and management of infection, including deworming of women of reproductive age to reduce other causes of iron deficiency anemia
6. Counselling on STD/HIV/AIDS, nutrition, personal hygiene, and consequences of abortion

7. Adolescent health services
8. Provision of oral health services

Prenatal Package

The pregnant woman who avails of the prenatal package obtains adequate care.

1. Prenatal visits
    - At least four visits throughout the course of pregnancy
    - Prenatal assessment
2. Micronutrient supplementation
3. Tetanus toxoid (TT) immunization
4. Promotion of exclusive breastfeeding, newborn screening (NBS) and infant immunization.
5. Counseling on healthy lifestyle with focus on smoking cessation, healthy diet and nutrition, regular exercise, STI and HIV prevention and oral health.
6. Early detection and management of complications of pregnancy.
7. Prevention and management of other conditions where indicated: hypertension, anemia, diabetes, TB, malaria, schistisomiasis and STI/HIV/AIDS
8. Birth planning and promotion of facility-based delivery.

Childbirth package

1. Skilled birth attendant/ skilled health professional- assisted delivery and facility based deliveries including the use of partograph
2. Proper management of pregnancy and delivery complications and newborn complications.
3. Access to basic emergency obstetric and newborn care (BEmONC) or comprehensive emergency obstetric and newborn care (CEmONC) services.

Postpartum package

1. Postpartum visits: within 72hours and on the 7^{th} day postpartum check for conditions such as bleeding or infections
2. Micronutrient supplementation
3. Counseling on nutrition, child care, family planning and other available services

Newborn (first week of life) care package

1. Interventions within the first 90 minutes
    - Immediate thorough frying
    - Skin-to-skin contact between mother and newborn.
    - Cord clamping 1-3 minutes after birth is recommended
    - Early initiation of breastfeeding (within 1 hour after birth)
    - Non-seperation of baby from the mother (rooming-in)
2. Essential newborn care after 90 minutes to 6 hours
    - Vit. K prophylaxis

- Examination of baby for birth injury, malformation or defects
- Additional care for a small baby

3. Care prior to discharge; (after 90 min)
    - Support unrestricted, per demand breastfeeding day and night.
    - Ensure warmth of the baby.
    - Washing and bathing
    - Look for danger signs and start resuscitation if necessary, keep warm, give first doses of IM antibiotics give oxygen
    - Look for signs of jaundice and infection
    - Perform newborn screening and newborn hearing screening
    - Provide instruction on discharge

Childcare package

1. Immunizations
2. Nutrition
    - Exclusive breastfeeding up to 6 mos
    - Sustained breastfeeding up to 24 mos with complementary feeding
    - Micronutrient supplementation
3. IMCI
4. Injury prevention
5. Oral health
6. Insecticide-treated nets for mothers and children in malaria-endemic areas

Three levels of care in the MNCHN service delivery network

1. Community level service providers or community health care team.
   <u>TWO BASIC FUNCTIONS</u>
    - Navigations functions
    - Basic Delivery functions

2. A BemONC-capable facility
   <u>6 signal obstetric function</u>
    - Parenteral administration of oxytocin in the third stage of labor
    - Parenteral administration of loading dose of anticonvulsant
    - Performance of assisted deliveries (imminent breech delivery)
    - Removal of retained products or conception
    - Manual removal of retained placenta

   <u>Emergency newborn interventions</u>
    - Newborn resuscitation
    - Oxygen support

3. **A CEmONC- capable Facility**
    - Can perform the six signal function as in BEmONC as well as CS delivery services, blood blanking and transfusion services and other highly specialized obstetric interventions.

THE REPRODUCTIVE HEALTH PROGRAM

RA 10254- responsible parenthood and reproductive health Act of 2002 informally known as Reproductive Health Law signed by Benigno Aquinom II on January 17, 2013.

Refers to the constellation of methods, techniques and services that contribute to reproductive health and wellbeing by preventing and solving reproductive health problems.

The reproductive health program of the Philippines adopts the life-span approach. It recognizes the fact that RH is a concern that affects different age brackets.

10 elements of reproductive health care

1. Family planning
2. Maternal and child health and nutrition
3. Prevention and control of reproductive tract infections, STIs and HIV/AIDS
4. Adolescents reproductive health
5. Prevention and management of abortions and its complications
6. Prevention and management of breast and reproductive tract cancers and other gynecological conditions.
7. Education and counseling on sexuality and sexual health
8. Men's reproductive health and involvement
9. Prevention and management of violence against women and children
10. Prevention and treatment of infertility and sexual dysfunction

THE PHILIPPINE FAMILY PLANNING PROGRAM (PFFP)

The Family Planning program started in the 1970s as a family planning service delivery component to achieve fertility reductions.

FP is means to prevent high- risk pregnancies brought about by the following conditions.

1. Being *too young*(less than 18 years old) or *too old (* over 34 years old)
2. Having had *too many* (4 or more) pregnancies
3. Having closely spaced (*too close)* pregnancies (less than 36 months)
4. Being *too ill or unhealthy/ too sick* or having an existing disease or disorder like iron deficiency anemia.

Four Pillars of PFFP

The guiding principles of the FP program also called the four pillars of the (PFFP) are as follows.

1. Responsible parenthood
2. Respect for life
3. Birth spacing
4. Informed choice

Client counseling and assessment

Counseling must be based on client's needs, the following are essential content of the nurse-client interaction regarding the chosen method

1. Effectiveness
2. Advantages and disadvantages
3. Possible side effects, complications and signs that require an immediate visit to the health facility
4. How to use the chosen method
5. Prevention of STIs
6. When to return to the health facility

Benefits of Family Planning

- Benefits to mothers
    1. Enables her to regain her health after delivery
    2. Gives enough time and opportunity to love and provide attention to her husband and children
    3. Gives more time for her family and own personal advancement
    4. When suffering from an illness, gives enough time for treatment and recovery
- Benefits for children
    1. Lightens the burden and responsible in supporting his family
    2. Enables him to give his children their basic needs
    3. Gives him time for his family and own personal advancement

Family Planning Methods

<u>Natural family planning</u>

- Lactation Amennorhea method (LAM)

<u>FAB Method</u>

Based on scientific analysis of fertile time in the woman's menstrual cycle.

1. Billings'ovulation method (BOM)
2. Basal body temperature (BBT)
3. Symptothermal method
4. Standard Days Methods (SDM)
5. Two-day Method

Artificial family planning methods

1. Combined oral contraceptives (COCs)

2. Depot medroxyprogesterone acetate
3. Intrauterine device (IUD)
4. Barrier method
    - Condom, diaphragms, cervical caps and spermicides
5. Permanent Method
    - Vasectomy
    - Bilateral tubal ligation (BTL)

Newborn Screening

Newborn Screening (NBS) – a simple procedure to find out if a baby has a congenital metabolic disorder that may lead to mental retardation or death if left untreated.

- ideally done on the 48th -72nd hour of life; also be done after 24hours of life but not later than 3days from the complete delivery of the newborn.

RA 9288 – also known as **NEWBORN SCREENING ACT OF 2004**

Newborn Screening Reference Center (NSRC) – responsible for the national testing database and case registries, training, technical assistance and continuing education for laboratory staff.

Located at the following sites:

1. NSC-NIH for the NCR and Luzon: National Institute of Health, University of the Philippines Manila, Pedro Gil St., Ermita, Manila
2. NSC-Central Luzon for Regon I, II, III and CAR: Angeles University Foundation Medical Center, Angeles City.
3. NSC-Visayas: Western Visayas State University Medical Center, Iloilo City
4. NSC-Mindanao: Southern Philippines Medical Center, Davao City

Disorders detected by NBS and their long-term effects:

Disorder	Definition	Long-term Effects
Congenital Hypothyroidism	Inability to produce thyroid hormone	Severe Mental Retardation
Congenital Adrenal Hyperplasia	Inherited disorder; inability of the adrenal gland to secrete cortisol or aldosterone, or both.	Death
Galactosemia	Inherited disorder; the body unable to metabolize galactose and the person is unable to tolerate any form of milk.	Death or Cataracts
Phenylketonuria	Without the ability to properly break down an amino acid called phenylalanine.	Severe Mental Retardation
Glucose-6-phosphate-dehydrogenase (C6PD Deficiency)	The read blood cells break down when the body is exposed to certain drugs, food, severe stress or severe infection.	Severe Anemia, Kernicterus

Maple Syrup Urine disease	Unable to break down amino acid leucine, isoleucine and valine; urine of affected person smells like maple syrup.	Death

Newborn screening procedure:

- The specimen is obtained through a heal prick.
- A few drops of blood are taken, blotted on a special absorbent filter card and then sent to NSC

Blood sample may be obtained by:

- Physician
- Medical technologist
- Nurse
- Trained midwife

NBS is available in:

- Hospitals
- Health centers
- Lying-in clinics
- Some private clinics
- RHUs

- Normal (**Negative**) – results are available 7 – 14 working days from the time samples are received at the NSC.
- **Positive** – results should be relayed to the parents immediately and must be referred to a specialist for confirmatory testing and further management.

Newborn Hearing Screening – the early detection of congenital hearing loss among newborns and referral for early intervention services to infants with hearing loss.

- among 3months and below.
- Early detection and intervention facilitate speech development and prevent future learing and psychosocial difficulties of the child with hearing impairement.

RA 9709 – also known as the **UNIVERSAL NEWBORN HEARING SCREENING AND INTERVENTION**

Expanded Program on Immunization (EPI)

EPI- established in 1976 to ensure that infant/children and mothers have access to routinely recommended vaccines.

RA 10152 – also known as **MANDATORY INFANT AND CHILDREN HEALTH IMMUNIZATION ACT OF 2011**

RA 7846 – provided for **COMPULSARY IMMUNIZATION AGAINST HEPATITIS B FOR INFANTS AND CHILDREN BELOW 8 YEARS OLD**.

The specific goals of the program:

1. To immunize all infants/children against the most common vaccine-preventable diseases,
2. To sustain the polio-free status of the Philippines
3. To eliminate measles infection.
4. To eliminate maternal and neonatal tetanus.
5. To control diphtheria, pertussis, hepatitis B, and German measles.
6. To prevent extrapulmonary TB among children.

The nurses uses the following formulas to estimate eligible population:

Estimated number of infant = total population x 2.7%

Estimated number 12–59 month old children = total population x 10.8%

Estimated number of pregnant women = total population x 3.5%

EPI vaccines and the special diluents have the following cold chain requirements:

- OPV : -15 to 25°C; must stored in the freezer.
- All other vaccines have to be stored in the refrigerator at a temperature of +2 to +8°C
- Hepatitis B, Pentavalent vaccine, Rotavirus vaccine and TT should not be stored in the freezer. Wrap the container with paper before putting in the vaccine bag with cold packs.
- Keep diluents cold by storing them in the refrigerator in the lower or door shelves

Fully immunized children (FIC) – are those who were given BCG, 3doses of OPV, 3doses of DPT and hepatitis B or 3doses of Pentavalent vaccine and 1dose of anti-measles.

Completely immunized children – who completed their immunization schedule at the age of 12 - 23 months.

A **child protected at birth (CPAB)** – used to describe a child whose mother has received:

a. 2doses to TT during this pregnancy, provided that the 2nd dose was given at least a month prior to delivery; or
b. at least 3doses of TT anytime prior to pregnancy with this child.

Infant and Young Child Feeding

EO no. 51 – also known as the **MILK CODE**

EO no. 382 – provided for the observance of the **NATIONAL FOOD FORTIFICATION** day in **November 7**.

RA 7600 – also known as **ROOMING-IN AND BREAST FEEDING ACT**

RA 8172 – also known as **ASIN (ACT FOR SALT IODIZATION NATIONWIDE)**

RA 8976 – also known as the **PHILIPPINE FOOD FORTIFICATION ACT**

RA 10028 – also known as **EXPANDED BREASTFEEDING PROMOTION ACT**

AO 36, s2010 – also known as **EXPANDED GARANTISADONG PAMBATA**

Different feeding practices:

- **Exclusive breastfeeding** – infant receives breast milk and allows to receive oral hydration salt, drops, syrups(minerals, vitamins, medicines) but nothing else.
- **Predominant breastfeeding** - infant's predominant source of nourishment has been breast milk, including milk expressed or from a we nurse as the predominant source of nourishment.
- **Complementary feeding** – the process of giving the infant food and liquids, along with breast milk, when breast milk is no longer sufficient to meet the infant's nutritional requirements.
- **Bottle feeding** – the child is given food or drink from a bottle with nipple/teat.
- **Early initiation of breastfeeding** – initiating breastfeeding of the newborn after bith within 90mins of life in accordance to essential newborn care protocol.

Nutritional assessment include any or several of the following:

- Anthropometry
- Weight-for-age

- Length/Height-for-age
- Mid-upper arm circumference (MUAC)
- Clinical examination
- Biochemical examination

Recommended infant and young child feeding practices:

- Early initiation of breastfeeding
- Exclusive breastfeeding for the first months, which possible, exept for afew medical conditions, such as galactosemia.
- Extent breastfeeding up to 2years and beyond.
- Appropriate complementary feeding with the use of locally available and culturally acceptable foods
- Micronutrients supplementation
- Universal salt iodization since ordinary salt contains very little iodine that cannot provide for the needs of the human body
- Food fortification

Benefits of breastfeeding to the infant includes:

- It provides all of the nutrients an infant needs for growth in the 1st 6months.
- It carries antibodies from the mother to help combat disease.
- It prevents diarrhea because of reduce risk from contaminated formula as well as of the antibodies in the breast milk.
- It lowers risk of developing later in life chronic conditions, like allergies, asthma, obesity, diabetes and heart disease.
- It provides benefit for intellectual and motor development of the infant

Benefits of breastfeeding to the mother:

- Early initiation of breastfeeding helps to contract the uterus and therefore reduce bleeding.
- It may help in the return to prepregnancy weight.
- Exclusive breastfeeding delays the return of fertility
- A long term benefit is a lower risk of premenopausal breast cancer and ovarian cancer.

Types of position when breast feeding the baby:

1. **Cradle hold** –the mother sits with her arms supported and, using her arm on the same side as the nursing breast cracle the infant of her body.
2. **Cross-cradle hold** – same to the cradle hold, except that the mother cradles her infant with arm on the opposite side of the nursing breast.
3. **Football, clutch or underarm hold** – the mother sits, hold the infant between her flexced arm and body, positions the infant facing her, and supports the infant's head with her open arm. Twins may be fed at the same time using the double-football hold.
4. **Side-lying hold** – the mother lies on her side with one arm supporting her head. The infant lies aside beside the mother, facing the breast. The mother grasps and offers her breast to the infant with the other hand. Once the infant has latched on, she supports her infant's body.

Ensuring the nutritional needs are met requires complementary foods be:

- **Timely** – complementary foods are introduced when the energy and nutrients exceeds when can be provided through exclusive and frequent breastfeeding.
- **Adequate** – they should provide sufficient energy, protein, and macronutrients to meet a growing child's nutritional goal.

- **Properly fed** – food are given consistent with a child's signal of appetite and satiety, and that meal frequency and feeding method – actively encouraging the child, even during illness, to consume sufficient food using finger, spoon, or self-feeding – are suitable for age.

Deworming - of children aged 1-2years is done every 6months.

- 12-24months are given **Abendazole 200mg** or **half tablet** or **Mebendazole 500mg tablet.**

Possible adverse effect of antihelminthic drug:

- Local sensitivity or allergy – give an antihistamine.
- Mild abdominal pain – give an antispasmodic
- Diarrhea – give oral rehydration solution
- Erratic worm migration – pull out worms from mouth/nose or from other orifeces.

Vitamin A Capsule – **100,000 IU** is given to **6-11months**; **200,000 IU** is given to **12-71months old**.

Integrated Management of Childhood Illness (IMCI)

IMCI – initiated by WHO, offers simple and effective methods for child survival, healthy growth and development, and is based on the combined community and health facility.

3 Main components of IMCI strategy:

1. Improvements in case management skills of health care staffs.
2. Improvements in health systems needed for effective management of childhood illness.
3. Improvements in family and community practices.

The IMCI protocol guides the health worker in:

- Assessing signs that indicate severe disease
- Assessing the child's nutrition immunization and feeding.
- Teaching parents how to care for a child at home
- Counseling parents to solve feeding problems
- Advising parents about when to return to a health facility.

Elements of IMCI Case Management:

1. **Assess** by checking first for danger signs including the other health problems.
2. **Classify** a child's illness using a color-coded triage system. Each illness is classified according to whether it requires:
    - Urgent referral treatment and referral (**PINK**)
    - Specific medical treatment and advices (YELLOW)
    - Simple advice on home management (**GREEN**)
3. **Identify** specific treatments for the child

4. Provide practical **treatment** instruction including teaching the mother on how to give oral drugs, how to feed and give fluids during illness, and how to treat local infections at home.
5. **Counsel** to solve any feeding problems found. Then counsel the mother about her own health.
6. When a child is brought back to the clinic as requested, **give follow-up care** and, if necessary, reassess the child for new problems.

Chapter 11- Control of Non-communicable Diseases

Mortality: Ten (10) Leading Causes by Sex (2015)
Source: DOH

RANK	CAUSE OF DEATH	MALE	FEMALE	TOTAL
1	Diseases of the heart	77,496	59,383	136,879
2	Diseases of the vascular system	33,907	27,291	61,198
3	Malignant neoplasms	28,984	29,731	58,715
4	Pneumonia	24,603	24,992	49,595
5	Accidents	31,783	7,473	39,256
6	Diabetes milletus	16,953	17,097	34,050
7	Tuberculosis (all forms)	18,247	7,800	26,047
8	Chronic lower respiratory diseases	16,478	7,282	23,760
9	Diseases of the digestive system	15,524	6,931	22,455
10	Diseases of the genitourinary system	13,155	8,876	22,031

*Total deaths in 2015: 560,605

Top 10 Causes of Mortality in the Philippines (2009)

1. Diseases of the heart
2. Cerebrovascular diseases
3. Malignant neoplasm
4. Pneumonia
5. Tuberculosis
6. COPD
7. Diabetes
8. Nephritis, Nephrotic syndrome
9. Assault
10. Certain conditions arising from perinatal period

Non-communicable disease (NCD)

- Is a medical condition that is non-infectious and non-transmissible
- "lifestyle-related diseases"

Cancer (malignant neoplasm)

- Is a group of various diseases involving unregulated cell growth.

- In cancer, cells divide, grow uncontrollably forming malignant tumors and invade parts of the body.
- **Breast cancer-** leading cancer killer in both men and women and **1st among women**
- **Lung cancer-** was 2nd cause of cancer deaths for both sexes combined and **1st among men**

Warning signals of cancer (American Cancer Society)
"CAUTION US"

C- change in bowel or bladder habits

A- a sore throat that does not heal

U- unusual bleeding or discharge

T- thickening or lump in breast

I- Indigestion or difficulty swallowing

O- Obvious change in a wart or mole

N- Nagging cough or hoarseness

U- Unexplained anemia

S- Sudden weight loss

Chronic obstructive pulmonary disease (COPD)

- Is as disease of the lungs in which the airways narrow over time
- **Smoking** is a strong risk factor

Diabetes

- Is a group of metabolic disease in which an individual has high blood sugar because the pancreas does not produce enough insulin or the cells do not respond to the insulin produced.

Diagnosis:

- FBS of >7.0 mmol/L (>126 mg/dL) or
- 2- hour blood sugar test of >11.1 mmol/L (200 mg/dL)

Symptoms:

- 3Ps- polydipsia, polyuria, polyphagia
- Weight loss
- Vision changes
- Fatigue

Risk Factors for Non- communicable Diseases

1. Physical inactivity
2. Cigarette smoking
3. Unhealthy eating
4. Excessive alcohol drinking
5. Viruses
6. Radiation

Prevention of Non-communicable Diseases

1. Promote physical activity and exercise
2. Promote health diet and nutrition
3. Promote a smoke-free environment
4. Stress management

NCD Prevention and control program

Goal: Reduce the toll of morbidity, disability, and premature deaths due to chronic, non-communicable lifestyle-related disease.

Objectives:

1. Analyze the social, economic, political, and behavioral determinants of NCD.

2. Reduce exposure of individuals and population to major determinants of NCD while preventing emergence of preventable common risk factors.

3. Strengthen health care for people with NCD through health sector reforms and cost-effective interventions.

Mental Health

- State of social well-being in which every individual realizes his or her own potential (self-image), can cope with the normal stresses of life (resiliency), can work productively and fruitfully (productivity and creativity), and is able to make a contribution to her or his community (sense of purpose).
- Stressful life events, difficult family background, brain diseases, heredity, and medical problems like kidney and liver failure are conditions that can lead to mental illness
-

4 Facets of Mental Health Problems:

1. **Defined or direct burden-** burden affecting persons with mental disorders such as cost of treatment, quality of life, and disability.
2. **Undefined or indirect burden-** burden relating to the impact of mental health problems to others such as family member or the community who care for the patient.
3. **Hidden burden-** stigma and violations of human rights to persons affected with mental health problems.
4. **Future or health burden-** burden resulting for the aging population or increasing social problems such as the development of complication or other medical illnesses or death.

National Mental Health Program

Vision: Better quality of life through total health care for all Filipinos

Mission: A rational and unified response to mental health

Goal: Quality mental health care

Disability

- General term for impairments, activity limitations, and participation restrictions.

CRDP- Convention on the Rights of Persons with Disabilities

Aim: promote, protect and ensure the full and equal enjoyment of all human rights and fundamental freedoms by all persons with disabilities, and to promote respect for their inherent dignity.

R.A. 7277- Magna Carta for Disabled Persons

National Health Program for persons with disabilities

Vision: Improve the total well-being of persons with disabilities (PWDs)

Mission: The Department of Health (DOH) shall ensure the development, implementation, and monitoring of relevant and efficient health programs and systems for PWDs that are available, affordable, and acceptable.

Goals:

1. Reduce the prevalence of all types of disabilities.
2. Promote and protect the human rights and dignity of PWDs and their caregivers.

Objectives:

1. Develop an integrated national health and human rights program and local models to serve the special health needs.

2. Pursue the implementation and monitoring of laws and policies for PWDs such as the accessibility law, human rights, and other related laws.

3. Ensure that health facilities and services are equitable, available, accessible, acceptable and affordable to PWDs through the development and implementation of essential health packages that suitable to their special needs and enrollment into the National Health Insurance Program.

4. Initiate and strengthen collaboration and partnership among stakeholders to improve the facilities devoted to the management and rehabilitation of PWDs and upgrade the capabilities of health professionals and frontline workers to cater to their special needs.

5. Continue and fast-track the registration of PWDs in order to generate data for accurate planning and implementation of programs.

Visual Impairment

- **Low vision-** is defined as visual acuity of less that 6/18, but equal to or better than 3/60, or a corresponding visual field loss to less than 20 degrees in the better eye with best possible correction
- **Blindness-** is defined as visual acuity of less that 3/60, or a corresponding visual field loss to less than 10 degrees in the better eye with best possible correction.

Vision 2020: The Right to Sight

- Global initiative for the elimination of avoidable blindness

Aim: to develop a sustainable comprehensive health care system that will ensure the best possible vision for all, thus improving their quality of life.

National Prevention of Blindness Program

Vision: All Filipinos enjoy the right sight by year 2020.

Mission: The DOH, local health units, partners, and stakeholder commit to:

1. Strengthen partnership among and with stakeholders to eliminate avoidable blindness in the Philippines.
2. Empower communities to take proactive roles in the promotion of eye health and prevention of blindness.
3. Provide access to quality eye care services for all.
4. Work toward poverty alleviation in the Philippines through the provision of quality eye care.

Goal: Reduce the prevalence of avoidable blindness in the Philippines through the provision of quality eye care.

Objectives:

1. Increase cataract surgical rate from 730 to 2,500 by the year 2010.
2. Reduce visual impairment due to refractive errors by 10% by the year 2010.
3. Reduce the prevalence of visual disability in children from 0.30% to 0.20% by the 2010.

LAWS AFFECTING CONTROL OF NON-COMMUNICABLE DISEASES

Law	Description
Executive Order No. 958	National Healthy Lifestyle Advocacy Campaign. Declaring the years 2005- 2015 as the decade of healthy lifestyle.
R.A. 1054	Free emergency medical and dental treatment for employees.
R.A. 9211	Tobacco Regulation Act of 2003. Regulates the packaging, use, sale, distribution, and advertisements of tobacco products.
R.A. 6425	Penalties for Violations of the Dangerous Drug Act of 1972.
R.A. 9165	Comprehensive Dangerous Drug Act of 2002.
R.A. 8423	Traditional and Alternative Medicine Act of 1997.
Administrative Order No. 179 series of 2004	Guidelines for the Implementation of the National Prevention of Blindness Program.
Department Personnel Order No. 2005-0547	Creation of a Program Management Committee for the National Prevention of Blindness Program.
Proclamation No. 40	Declaring the month of August every year as “Sight Saving Month”.
R.A. 7277	Magna Carta for Disabled Persons. An act providing for the rehabilitation and self-reliance of disabled persons and their integration into the mainstream of society and for other purposes.
R.A 10352	An act restructuring the Excise Tax on Alcohol and Tobacco, which prescribes higher tax rates on tobacco and alcohol products. The law imposes higher taxes on cigarette and alcohol products for the next five years. It aims to restructure the existing taxes imposed on alcohol and tobacco goods, which are potential revenue source that will help fund Universal Health Care Program of the government, and to discourage people from engaging in vices.

CHAPTER 12

COMMUNICABLE DISEASES

Communicable Diseases are Primary Cause of Mortality Gap between Rich and Poor Countries
Non-communicable diseases account for 59% of all deaths worldwide – estimated to rise from 28m in 1990 to 50m in 2020
About 60% of deaths caused by communicable diseases can be attributed to:

- HIV/AIDS
- Malaria
- Tuberculosis
- Measles
- Diarrheal disease
- Acute respiratory infection

Goal of WHO
1. Prevention of disease
2. Prevention of disability and death from infection
3.Prevention through immunization

Chain of Infection
Pathogen or causative agent
biologic agent (organism) capable of causing disease
Eliminate organism by:

- Sterilizing surgical instruments and anything that touches sterile spaces of the body
- Using good food safety methods
- Providing safe drinking water
- Vaccinating people so they do not become reservoirs of illness
- Treating people who are ill

Reservoir
Any person, animal, arthropod, plant, soil, or substance (or combination of these) in which an causative agent normally lives and multiplies, on which it depends primarily for survival, and where it reproduces in such numbers that it can be transmitted to a susceptible host
Eliminate reservoirs by:

- Treating people who are ill
- Vaccinating people
- Handling and disposing of body fluids responsibly
- Handling food safely
- Monitoring soil and contaminated water in sensitive areas of the hospital and washing hands carefully after contact with either

Portal of exit
the way the causative agent gets out of the reservoir (body fluid or skin)
Reduce risk from portals of exit by:

- Covering coughs and sneezes with a tissue
- Handling body fluids with gloves, then doing hand hygiene
- Keeping draining wounds covered with a dressing
- Not working when you have exudative (wet) lesions or weeping dermatitis

Mode of transmission
any mechanism by which a pathogen is spread from a source or reservoir to a person
unwashed hands, things which are not cleaned between patients, droplets, or, for a few diseases, the air
Eliminate the mode of transmission by:

- Hand hygiene
- Wearing gloves to minimize contamination of hands and discarding them after each patient
- Cleaning, disinfection, or sterilization of equipment used by more than one patient
- Cleaning of the environment, especially high-touch surfaces

Portal of entry
hole in the skin that allows the infectious agent to get into the body (mouth, nose, eyes, rashes, cuts, needlestick injuries, surgical wounds and IV sites)
Protect portals of entry (our own and our patients) by:

- Dressings on surgical wounds
- IV site dressings and care
- Elimination of tubes as soon as possible
- Masks, goggles and face shields
- Keeping unwashed hands and objects away from the mouth
- Actions and devices to prevent needlesticks
- Food and water safety

Susceptible host
a person or animal lacking effective resistance to a particular infectious agent
Minimize risk to susceptible hosts by:

- Vaccinating people against illnesses to which they may be exposed
- Preventing new exposure to infection in people who are already ill, are receiving immunocompromising treatment, or are infected with HIV
- Maintaining good nutrition
- Maintaining good skin condition
- Covering skin breaks
- Encouraging rest and balance in our lives

MICROBES against HUMAN

Definition:

Symptoms

evidence of disease that is experienced or perceived (subjective)
subjective changes in body function noted by
patient but not apparent to an observer

Signs

objective evidence of a disease the physician can
observe and measure

Syndrome

a specific group of signs and symptoms that
accompany a particular disease

Incidence

the number of people in a population who
develop a disease during a particular time period

Prevalence

the number of people in a population who develop a disease, regardless of when it appeared refers to both old and new cases

Classification of Infectious Disease

Based on Behavior within host

Infectious Disease

- Any disease caused by invasion and multiplication of microorganisms

Contagious Disease

disease that easily spreads from one person to another

Based on Occurrence of Disease

Sporadic Disease

disease occurs only occasionally
i.e. botulism, tetanus

Endemic Disease

constantly present in a population, country or
community
i.e. Pulmonary Tuberculosis

Epidemic Disease

acquire disease in a relatively short period
greater than normal number of cases in an area
within a short period of time

Pandemic Disease

epidemic disease that occurs worldwide
i.e. HIV infection

Based on Severity or Duration of Disease

Acute Disease

develops rapidly (rapid onset) but lasts only a short time

i.e. measles, mumps, influenza

Chronic Disease

Develops slowly, milder but longer lasting clinical manifestation

Based on State of Host Resistance

Primary Infection

acute infection that causes the initial illness

Secondary Infection

one caused by an opportunistic pathogen after primary infection has weakened the body's defenses

Stages of Disease

Incubation Period

time interval between the initial infection and the 1st appearance of any s/sx

Prodromal Period

early, mild symptoms of disease

Period of Illness

overt s/sx of disease

WBC may increase or decrease

can result to death if immune response or medical intervention fails

Period of Decline

s/sx subside

vulnerable to secondary infection

Period of Convalescence

regains strength and the body returns to its pre diseased state

recovery has occurred

Mode of Transmission

The process of the infectious agent moving from the reservoir to the susceptible host

Contact Transmission

- the most important and frequent mode of transmission

Type of Contact Transmission

Direct Contact Transmission

- Person to person transmission of an agent by
- physical contact between its source and
- susceptible host
- No intermediate object involved
- i.e. kissing, touching, sexual contact
- Source → Susceptible Host

Indirect Contact Transmission

- reservoir to a susceptible host by means of a
- non living object (fomites)
- Source → Non Living Object → Susceptible Host

Susceptible Host

Recognition of high risk patients

- Immunocompromised
- DM
- Surgery
- Burns
- Elderly

BLOOD/VECTOR BORNE DISEASES

Prevention

Eradicate the source DOH CLEAN

- C – chemically treated mosquito net
- L - larvae eating fish
- E – environmental sanitation
- A – anti-mosquito
- N – neem tree (oregano, eucalyptus)

Dengue Hemorrhagic Fever

- caused by dengue virus (Flaviviridae) with 4 serotypes
- transmitted to a bite of female aedes aegypti mosquito
- incubation period 2-7 days
- Vectors: (day biting)
- Aedes aegypti (breeds in water stored in houses)
- Aedes albopictus
- Culex fatigans

Clinical manifestation

First 4 days – Febrile or Invasive stage – high grade fever, headache, body malaise, conjuctival injection, vomitting, epistaxis or gum bleeding, positive tornique test.

4th – 7th day – Toxic or Hemorrhagic Stage – After the lyze of the fever, this is were the complication of dengue is expected to come out as manifested by abdominal pain, melena, indicating bleeding in the upper gastrointestinal tract, Unstable BP, narrow pulse pressure and shock.

7th – 10th day – Convalescent or recovery stage – after 3 days of afebrile stage and the patient was properly hydrated and monitored BP will become stable and laboratory values of platelet count and bleeding parameters will begin to normalize.

Classification of Dengue Fever according to severity

1. Grade I – Dengue fever, saddleback fever plus constitutional signs and symptoms plus positive tornique test
2. Grade II – Stage I plus spontaneous bleeding, epistaxis, GI, cutaneous bleeding
3. Grade III – Dengue Shock Syndrome, all of the following signs and symptoms plus evidence of circulatory failure
4. Grade IV – Grade III plus irreversible shock and massive bleeding

Diagnostics

Tourniquet test or Rumpel Leeds Test – presumptive test for capillary fragility

- keep cuff inflated for 6-10 mins (child), 10-15 min (adults)
- count the petechiae formation 1 sq inch (>10-15 petechiae/sq inch)

Laboratory Procedures

- CBC
- Bleeding Parameters
- Serologic test
- Dengue blot, Dengue Igm
- Other :
- PT (Prothrombin Time)
- APTT (Activated Partial Thromboplastin Time)
- Bleeding time
- Coagulation time

Mgmt: symptomatic and supportive

Management

- Specific Therapy – none
- Symptomatic/Supportive therapy
- Intravenous Fluids (IVF)
- with hemoconcentration, 5-7 ml/kg/hr
- with shock, 10-30ml/kg in <20mins
- Use of Blood/Blood Products
- **Platelet concentrate 1 unit/5-7kg**
- **Cryoprecipitate, 1unit/5kg**
- **FFP, 15ml/kg x 2-4hrs**
- **given in patient in impending shock and unresponsive to isotonic or colloid transfusion.**
- **Prolonged PT**
- **FWB 20cc/kg**
- **active bleeding**
- **check serum calcium**
- **PRBC 10cc/kg**

Nursing Intervention

- Paracetamol (no aspirin)
- Giving of cytoprotectors
- Gastric Lavage
- trendelenberg position for shock
- Nasal packing with epinephrine
- No intramuscular injections
- manage anxiety of patient and family

Preventive measures

Department of Health program for the control of Dengue Hemorrhagic Fever

S eek and destroy breeding places
S ay no to left and right defogging
S eek early consultation

FILARIASIS

- The disease often progresses to become chronic, debilitating and disfiguring disease since it's symptoms are unnoticed or unfamiliar to health workers.
- High rates in region 5(bicol), 8 (samar and leyte, II (davao)
- Wuchereria bancrofti and Bulgaria malayi
- Transmitted to the bite of infected female mosquito (Aedes, Anopheles, Mansonia)
- The larvae are carried in the blood stream and lodged in lymphatic vessels and lymph glands where they mature in adult form

Two biological type

Nocturnal

microfilaria circulate in peripheral blood at night (10pm – 2am)

Diurnal

microfilaria circulate in greater concentration at daytime

Clinical Manifestation

Acute stage

- filarial fever and lymphatic inflammation tha occurs frequently as 10 times per year and usually abates spontaneously after 7 days
- Lymphadenitis (Inflammation of the lymphnodes)
- Lymphangitis (Inflammation of the lymph vessels)

Chronic Stage (10-15 years from the onset of the first attack)

- Hydrocele (Swelling of the scotum)
- Lymphedema (Temporary swelling of the upper and lower extremities)
- Elephantiasis (enlargement and thickening of the skin of the lower or upper extremities)

Laboratory Diagnosis

- Blood smear – presence of microfilaria
- Immunochromatographic Test (ICT)
- Eosinophil count

Management Guidelines

- Specific Therapy
- Dietylcarbamazine (DEC) 6mg/KBW in divided doses for 12 consecutive days
- Ivermectine (Mectican)
- Supportive Therapy
- Paracetamol
- Antihistamine for allergic reaction due to DEC
- Vitamin B complex
- Elevation of infected limb, elastic stocking

DEC should be taken immediately after meals
It may cause loss of vision, night blindness, or tunnel vision with prolonged used.
Ivermectin is best taken as single dose with a full glass of water in en empty stomach.
Cannot be used in patient with asthma

Preventive Measures
Health teachings
Environmental Sanitation

Leptosiprosis (Weil's disease)
a zoonotic systemic infection caused by Leptospires, that penetrate intact and abraded skin through exposure to water, wet soil contaminated with urine of infected animals.

Anicteric Type (without jaundice)
manifested by fever, conjunctival injection
signs of meningeal irritation

Icteric Type (Weil Syndrome)
Hepatic and renal manifestation
Jaundice, hepatomegally
Oliguris, anuria which prigress to renal failure
Shock, coma, CHF
Convalescent Period

Diagnosis
Clinical history and manifestation
Culture
Blood: during the 1st week
CSF: from the 5th to the 12th day
Urine: after the 1st week until convalescent period
LAAT (Leptospira Agglutination Test)
other laboratory
BUN,CREA, liver enzymes

Treatment
Specific
Penicillin 50000 units/kg/day
Tetracycline 20-40mg/kg/day
Non-specific
Supportive and symptomatic
Administration of fluids
Peritoneal dialysis for renal failure
Educate public regarding the mode of transmission, avoid swimming or wadding in potentially contaminated waters and use proper protective equipment.

Nursing Responsibilities

1. Dispose and isolate urine of patient.
2. Environmental sanitation like cleaning the esteros or dirty places with stagnant water, eradication of rats and avoidance of wading or bathing in contaminated pools of water.
3. Give supportive and asymptomatic therapy
4. Administration of fluids and electrolytes.
5. Assist in peritoneal dialysis for renal failure patient (The most important sign of renal failure is presence of ***oliguria***.)

MALARIA

- Malaria
- "King of the Tropical Disease"
- an acute and chronic infection caused by protozoa plasmodia
- Infectious but not contagious
- transmitted through the bite of female anopheles mosquito
- Malaria Exacts Heavy Toll in Africa
- **Malaria**
- There are 300-500m new cases annually
- Over 1m die every year – almost 3000 per day
- 90% of deaths are in Sub-Saharan Africa
- Cost of malaria in Africa is $100bn
- Vector: (night biting)
- anopheles mosquito
- or minimus flavire

Life cycle:

- Sexual cycle/sporogony (mosquito)
- sporozoites injected into humans
- Asexual cycle/schizogony (human)
- gametes is the infective stage taken up by biting mosquito

Plasmodium Vivax

- more widely distributed
- causes benign tertian malaria
- chills and fever every 48 hours in 3 days

Plasmodium Falciparum

- common in the Philippines
- Causes the most serious type of malaria because of high parasitic densities in blood.
- Causes malignant tertian malaria

Plasmodium malaria

- much less frequent
- causes quartan malaria, fever and chills every 72 hrs in 4 days
- Plasmodium Ovale
- rarely seen.

Pathology

- the most characteristic pathology of malaria is destruction of red blood cells, hypertrophy of the spleen and liver and pigmentation of organs.
- The pigmentation is due to the phagocytocis of malarial pigments released into the blood stream upon rupture of red cells

Clinical Manifestation

uncomplicated

- fever, chills, sweating every 24 – 36 hrs

Complicated

- sporulation or segmentation and rupture of erythrocytes occurs in the brain and visceral organs.
- Cerebral malaria
- changes of sensorium, severe headache and vomiting
- seizures

Clinical manifestation

1. Cold stage – 10-15 mins, chills, shakes
2. hot stage – 4-6 hours, recurring high grade fever, severe headache, vomitting, abdominal pain, face is blue
3. Diaphoretic Stage – excessive sweating

Diagnosis

- Malarial smear
- Quantitative Buffy Coat (QBC)

Travel in endemic areas

Treatment:

Determine the species of parasite

Objectives of treatment

1. Destroy all sexual forms of parasite to cure the clinical attack
2. Destroy the excerythrocytes (EE) to prevent relapse
3. Destroy gametocytes to prevent mosquito infections

Treatment for P. Falciparum

1. chloroquine tablet (150mg/base/tab) Day 1,2,3 (4,4,2)
2. Sulfadoxine/Pyrimethamine 500mg/25mg/tab, 3tab single dose
3. Primaquine (15mg/tab) 3 tabs single dose

Treatment for P. Vivax

1. Choloroquine, Day 1,2,3 (4,4,2)
2. Primaquine 1 tab OD for 14 days

Treatment for mixed

- chloroquine (4,4,2)
- Sulfadoxine/Pyrimethamine 3 tabs once
- Primaquine 1 tab for 14 days

Multi-drug resistant P. Falciparum
quinine plus doxycycline, or tetracycline and primaquine
Complications

- severe anemia
- cerebral malaria
- hypoglycemia

Prevention and Control

- Eliminate anopheles mosquito vectors
- Advise travelers
- limit dusk to dawn outdoor exposure
- insect repellant, nets

Nursing Care
1. Consider a patient with cerebral malaria to be an emergency

- Administer IV quinine as IV infusion

- Watch for neurologic toxicity from quinine transfusion like delirium, confusion, convulsion and coma
2. Watch for jaundice – this is related to the density of the falciparum parasitemia,
3. Evaluate degree of anemia
4. Watch for abnormal bleeding that are may be due to decrease production of clotting factors by damage liver.

Chemoprophylaxis

- doxycycline 100mg/tab, 2-3 days prior to travel, continue up to 4 weeks upon leaving the area

- Mefloquine 250mg/tab, 1 week before travel, continue up to four weeks upon leaving the area
- Pregnant, 1st trimester, chloroquine, 2 tabs weekly, 2 weeks before travel, during stay and until 4 weeks after leaving
- 2nd and 3rd trimester, Pyrimethamine-sulfadoxine

Category of provinces
Category A – no significant improvement in malaria for the past 10 years. >1000
- Mindoro, isabela, Rizal, Zamboanga, Cagayan, Apayao, kalinga
Category B - <1000/year
- Ifugao, abra, mt. province, ilocos, nueva ecija, bulacan, zambales, bataan, laguna
Category C – significant reduction
-pampanga, la union, batangas, cavite, albay

CENTRAL NERVOUS SYSTEM DISEASES
Inflammation of the meniges
Caused by bacterial pathogen, N. menigitidis, H. Influenza, Strep. Pneumoniae, Mycobacterium Tuberculosis
PATHOLOGY
Primary – spread of bacteria from the bloodstream to the meniges
Secondary – results from direct spread of infection from other sources or focus of infection.

The disease usually begins as an infection by normal body flora, of:
1. The ear (otitis media) - *Haemophilus influenzae*
2. The lung (lobar pneumoniae) - *Streptococcus pneumoniae*
3. The upper respiratory tract (rhinopharyngitis) - *Neisseria meningitidis, Haemophilus influenzae,* ***Streptococcus***, Group B
4 The skin and subcutaneous tissue (furunculosis) *S. aureus*
5. The bone (osteomyelitis) - *S. aureus*
6. The intestine - *E. coli*

Clinical manifestation
- Fever
- Rapid pulse, respiratory arrythmia
- Soreness of skin and muscles
- Convulsion/seizures
- headache
- irritability
- fever
- neck stiffness
- pathologic reflexes: kernig's, Babinski, Brudzinski

Diagnosis

- Lumbar puncture
- Blood C/S
- other laboratories

umbar Puncture

- To obtain specimen of CSF
- To reduce ICP
- To Introduce medication
- To inject anesthetic

CSF Examination

- Fluid is turbid/purulent >1000cc/mm cells
- WBC count increase
- Sugar content markedly reduced
- CHON increased
- Presence of microorganism
- Treatment
  Bacterial meningitis
- TB meningitis
- Intensive Phase
- Maintainance Phase
- Fungal meningitis
- cryptococcal meningitis – fluconazole or amphotericin B

2. Supportive/Symptomatic

a. Antipyretic
b. treat signs of increased ICP
c. Control of seizures
d. adequate nutrition

Nursing Intervention

Prevent occurrence of further complication

- Maintain strict aseptic technique when doing dressing or lumbar puncture.
- Early symptom should be recognize
- Vital signs monitoring
- Observe signs of increase ICP
- Protect eyes from light and noises

Maintain normal amount of fluid and electrolyte balance

- Note and record the amount of vomitus
- Check signs of dehydration

Prevent Spread of the disease

- Having proper disposal of secretions
- Emphasize the importance of masking
- Explain the importance of isolation

Ensure patient's full recovery

- Maintain side rails up in episodes of siezures
- Prevent sudden jar of bed
- Keep patient in a dark room and complete physical rest
- Diversional activities and passive exercises

MENINGOCOCCEMIA

- caused by Neisseria meningitides, a gram negative diplococcus
- transmitted through airborne or close contact
- incubation is 1-3 days
- natural reservoir is human nasopharynx

Clinical Manifestation

sudden onset of high grade fever, rash and rapid deterioration of clinical condition within 24 hours

S/sx:

1. Meningococcemia – spiking fever, chills, arthralgia, sudden appearance of hemorrhagic rash
2. Fulminant Meningococcemia (Waterhouse Friderichsen) – septic shock; hypotension, tachycardia, enlarging petecchial rash, adrenal insufficiency

Laboratory

- Blood Culture
- Gram stain of peripheral smear, CSF and skin lesions
- CBC

Treatment:

antimicrobial

- Benzyl Penicillin 250-400000 u/kg/day
- Chloramphenicol 100mg/kg/day

Symptomatic and supportive

- fever
- seizures
- hydration
- respiratory function

Chemoprophylaxis

1. Rifampicin 300-600mg q 12hrs x 4 doses
2. Ofloxacin 400mg single dose
3. Ceftriaxone 125-250mg IM single dose

Nursing Intervention

- Provide strict isolation
- Wearing of PPE
- Health teaching
- Contact tracing
- Prophylaxis
- Meninggococcal vaccine for high risk patient

RABIES

- acute viral encephalomyelitis
- incubation period is 4 days up to 19 years
- risk of developing rabies, face bite 60%, upper extremities 15-40%, lower extremities 10%
- 100% fatal

Clinical Manifestation

- pain or numbness at the site of bite
- fear of water
- fear of air

<u>4 STAGES</u>

1. prodrome - fever, headache, paresthesia,
2. encephalitic – excessive motor activity, hypersensitivity to bright light, loud noise, hypersalivation, dilated pupils
3. brainstem dysfunction – dysphagia, hydrophobia, apnea
4. death

Diagnosis

- FAT (fluorescent antibody test)
- Clinical history and signs and symptoms

Management

- No treatment for clinical rabies
- Prophylaxis

Postexposure prophylaxis

A. Active vaccine (PDEV,PCEC,PVRV)
Intradermal (0,3,7,30,90)
Intramuscular (0,3,7,14,28)
(0,7,21)

B. Passive Vaccine
a. ERIG wt in kg x .2 = cc to be injected im (ANST)
b. HRIG wt in Kg x .1333

Pre-exposure Prophylaxis
Intradermal/Intramuscular (0,7,21)

Infection control
- Patient is isolated to prevent exposure of hospital personnel, watchers and visitors
- PPE
- Preventive Measures
- Education
- Post-exposure and Pre-exposure Prophylaxis

Poliomyelitis
- RNA, Polio virus
- Fecal oral route/droplets
- IP 7-12 days
- Disease of the lower motor neurin involving the anterior horn cells
- Infantile paralysis; Helne-Medin disease

Predisposing Factors
- Children below 10 years old
- Male more often affected
- Poor environmental and hygienic conditions

Causative Agent: Legio debilitans
- Brunhilde (permanent)
- Lansing and Leon (temporary)
- May exist in contaminated water, sewage and milk

S/sx: disease manifestations:
1. mild febrile illness – fever, malaise, sore throat (abortive stage)
2. Pre-paralytic stage - flaccid asymetrical ascending paralysis (Landry's sign), Hayne's sign (head drop), Pofer's sign (opisthotonus)
3. Paralytic stage
bulbar or spinal

Mode of Transmission
- Droplet infection – in early infection
- Body secretions – nasopharyngeal
- Fecal oral – during late stage
- Flies may act as mechanical vectors

B. I – Abortive or inapparent
C. II – Meningitis (non-paralytic)
D. III – Paralytic (anterior horn of spinal cord)

E. IV – Bulbar (encephalitis)

Dx: Pandy's test - CSF (increased CHON)
MGMT:
Active – OPV (Sabin) and IPV (Salk)
Immunity is acquired for 3 strains

A. Legio brunhilde (fatal)
B. Legio lansing
C. Legio leon

Respiratory distress

A. Respirator
B. Tracheostomy – life saving procedure when respiratory failure and inability to swallow are not corrected
C. Oxygen therapy
D. Rehabilitation

SNAKEBITE
Management

- **Lie the victim flat**
- **ice compress and constrictives materials are contraindicated**
- **Transport the patient to the nearest hospital**
- **Antivenim administration in patient's with signs of envenomation**
- **It is never too late to give anti-venim**
- **Antivenim is given thru intravenous infusion, which is the safest and most effective route. 2-5 ampules plus D5W to run iver 1-2 hours every 2 hours**
- **Antimicrobial therapy**
- **sulbactam/Ampicillin or co-amoxiclav**
- **Substitute**
- **Prostigmine IVinfusion, 50-100ug/kg/dose q 8hrs**
- **Atropine**

TETANUS

- caused by Clostridium tetani, grows anaeronically
- Tetanus spores are introduced into the wound contaminated with soil.
- Incubation period 4-21 days

Clinical manifestation

- Difficulty of opening the mouth (trismus or lockjaw)
- Risus sardonicus
- Abdominal rigidity
- Localized or generalized muscle spasm

Treatment

1. Neutralize the toxin
2. Kill the microorganism
3. Prevent and control the spasm
 - muscle relaxants
 - Sedatives
 - Tranquilizers
4. Tracheostomy

Treatment:

anti-toxin

Tetanus Anti-Toxin (TAT)

- Adult,children,infant 40,000 IU ½ IM,1/2 IV
- Neonatal Tetanus 20000 IU, 1/2IM, ½ IV

TIG

- Neonates 1000 IU, IV drip or IM
- Adult, infant, children 3000 IU, IV drip or IM

Antimicrobial Therapy

Penicillin !-3 mil units q 4hours

Pedia 500000 – 2mil units q 4 hrs

Neonatal 200000 units IVP q 12hrs or q8hrs

Control of spasms

- diazepam
- chlorpromazine

Nursing care

- Patient should be in a quiet, darkened room, well ventilated.
- Minimal/gentle handling of patient
- Liquid diet via NGT
- Prevent Injury
- Preventive Measures
- Treatment of wounds
- Tetanus toxoid (0,1,6,1,1)

HEPATO-ENTERIC DISEASES
SCHISTOSOMIASIS

- caused by blood flukes, Schistosoma
- has 3 species, S. haematobium, S. Mansoni, S. japonicum
- S. japonicum is endemic in the Philippines (leyte, Samar, Sorsogon, Mindoro,Bohol)
- Intermediate host, Oncomelania Quadrasi

DIAGNOSIS

- Schistosoma eggs in stool
- Rectal bipsy
- Kato Katz
- Ultrasound of HBT

Clinical Manifestation

- severe jaundice
- edema
- ascites
- hepatosplenomegally
- S/S of portal hypertention

Management

- Praziquantrel 60mg/kg Once dosing
- Supportive and sympromatic

Methods of Control

- Educate the public regarding the mode of transmission and methods of protection.
- Proper disposal of feces and urine
- Prevent exposure to contaminated water. To minimize penetration after accidental water exposure, towel dry and apply 70% alcohol.

The organism is pathogenic only in man

TYPHOID FEVER

- Spread chiefly by carriers, ingestion of infected foods
- Endemic particularly in areas of low sanitation levels
- Occurs more common in may to august

MOT: oral fecal route

- S/sx: Rose spot (abdominal rashes), more than 7days Step ladder fever 40-41 deg, headache, abdominal pain, constipation (adults), mild diarrhea (children)

Diagnosis

Blood examination WBC usually leukopenia with lymphocytosis
Isolation

- Blood culture 1st week\
- Urine culture 2nd week
- Stool culture 3rd week
- Widal test O or H
- 1st week step ladder fever (BLOOD)
- 2nd week rose spot and fastidial
- typhoid psychosis (URINE & STOOL)

Mgmt: Chloramphenicol, Amoxicillin, Sulfonamides, Ciprofloxacin, Ceftriaxone

Watch for complication

a. Perforation – symptoms of sharp abdominal pain, abdominal rigidity and absent of bowel sounds.

- prepare for intestinal decompression or surgical intervention

b. Intestinal hemorrhage - withold food and give blood transfusion

Nursing Interventions

- Environmental Sanitation
- Food handlers sanitation permit
- Supportive therapy
- Assessment of complication (occuring on the 2nd to 3rd week of infection)
- typhoid psychosis, typhoid meningitis
- typhoid ileitis

Hepatitis

- Hepa A – fecal oral route
- Hepa B – body fluids
- Hepa C – non A non B, BT, body fluids
- Hepa D – hypodermic, body fluids
- Hepa E – fecal oral route, fatal and common among pregnant women
- Hepa G – BT, parenteral

Hepatitis A

- Infectious hepatitis, epidemic hepatitis
- Young people especially school children are most commonly affected.
- Predisposing factors:
- Poor sanitation, contaminated water supply, unsanitary preparation of food, malnutrition, disaster conditions

Incubation Period: 15-50 days

Signs/Symptoms:

- Influenza
- Malaise and easy fatigability
- Anorexia and abdominal discomfort
- Nausea and vomiting
- Fever, CLAD
- jaundice

Dx**: Anti HAV IgM – active infection**
Anti HAV IgG – old infection; no active disease

Management:

- Prophylaxis
- Complete bed rest
- Low fat diet but high sugar
- Ensure safe water for drinking
- Sanitary method in preparing handling and serving of food.
- Proper disposal of feces and urine.
- Washing hands before eating and after toilet use.
- Separate and proper cleaning of articles used by patient

Hepatitis B

- DNA, Hepa B virus
- Serum hepa
- Worldwide distribution
- Main cause of liver cirrhosis and liver cancer

IP: 2-5 months

Mode of Transmission

- From person to person through
- contact with infected blood through broken skin and mucous membrane
- sexual contact
- sharing of personal items
- Parenteral transmission through
- blood and blood products
- use of contaminated materials
- Perinatal transmission

High Risk group

- Newborns and infants of infected mothers
- Health workers exposed to handling blood
- Persons requiring frequent transfusions
- Sexually promiscuous individuals
- Commercial sex workers
- Drug addicts

Possible Outcome

- Most get well completely and develop life long immunity.
- Some become carriers of the virus and transmit disease to others.
- Almost 90% of infected newborns become carriers

Hepatitis C

- Post transfusion Hepatitis
- Mode of transmission – percutaneous, BT
- Predisposing factors – paramedical teams and blood recepients
- Incubation period – 2weeks – 6 months

Hepatitis D

- Dormant type
- Can be acquired only if with hepatitis B

Hepatitis E

- If hepatitis E recurs at age 20-30, it can lead to cancer of the liver
- Enteric hepatitis
- Fecal-oral route

DX:

- Elevated AST or SGPT (specific) and ALT or SGOT
- Increased IgM during acute phase
- (+) or REACTIVE HBsAg = INFECTED, may be acute, chronic or carrier
- (+) HBeAg = highly infectious
- ALT – 1st to increase in liver damage
    - HBcAg = found only in the liver cells
- (+) Anti-HBc = acute infection
- (+) Anti-HBe = reduced infectiousness
- (+) Anti-HBs = with antibodies (FROM vaccine or disease)
- Blood Chem. Analysis (to monitor progression)
- Liver biopsy (to detect progression to CA)

Mgmt:

- Prevention of spread – Immunization and Health Education
- Enteric and Universal precautions
- Assess LOC
- Bed rest
- ADEK deficiency intervention
- High CHO, Moderate CHON, Low fat
- FVE prevention

Cx:
1. Fulminant Hepatitis – s/sx of encephalopathy
2. Chronic Hepatitis - lack of complete resolution of clinical sx and persistence of hepatomegaly
3. HBsAg carrier

ERUPTIVE FEVER

MEASLES

- Extremely contagious
- Breastfed babies of mothers have 3 months immunity for measles
- The most common complication is otitis media
- The most serious complications are bronchopneumonia and encephalitis

Measles, Rubeola, 7 Day Fever, Hard Red Measles

- RNA, Paramyxoviridae
- Active MMR and Measles vaccine
- Passive Measles immune globulin
- Lifetime Immunity
- IP: 7-14 days

MOT: droplets, airborne

- *Contagious 4 days before rash and 4 days after rash

Clinical Manifestation

Pre eruptive stage

- Patient is highly communicable
- 4 characteristic features

A. Coryza
B. Conjunctivitis
C. Photophobia
D. Cough

- Koplik's spots
- Stmsons line

Eruptive stage

- Maculopapular rashes appears first on the hairline, forehead, post auricular area the spread to the extremities (cephalocaudal)
- Rashes are too hot to touch and dry
- High grade fever and increases steadily at the height of the rashes

Stage of convalescence

- Rashes fade in the same manner leaving a dirty brownish pigmentation (desquamation)
- Black measles – severe form of measles with hemorrhagic rashes, epistaxis and melena

Rashes: maculopapaular, cephalocaudal (hairline and behind the ears to trunk and limbs), confluent, desquamation, pruritus

Complication

- Bronchopneumonia
- Secondary infections
- Encephalitis
- Increase predisposition to TB

MANAGEMENT

1. Supportive
2. Hydration
3. Proper nutrition
4. Vitamin A
5. Antibiotics
6. Vaccine

Nursing Care

- Respiratory precautions
- Restrict to quite environment
- Dim light if photophobia is present
- Administer antipyretic
- Use cool mist vaporizer for cough

German Measles (rubella)

- Acute infection caused by rubella virus characterized by fever, exanthem and retroauricular adenopathy.
- Has a teratogenic potential on the fetuse of women in the 1st trimester

s/sx:

- forschheimer's (petecchial lesion on buccal cavity or soft palate),
- cervical lymphadenopathy, low grade fever
- " Oval, rose red papules about the size of pinhead

Dx: clinical
CX: rare; pneumonia, meningoencephalitis
CX to pregnant women:

- 1st tri-congenital anomalies
- 2nd tri-abortion
- 3rd tri-pre mature delivery

Rashes: Maculopapular, Diffuse/not confluent, No desquamation, spreads from the face downwards

Roseola Infantum,
Exanthem Subitum, Sixth disease

- Human herpes virus 6
- 3mos-4 yo, peak 6-24 mos
- MOT: probably respiratory secretions

S/sx:
Spiking fever w/c subsides 2-3 days, Face and trunk rashes appear after fever subsides, Mild pharyngitis and lymph node enlargement

Chicken Pox, Varicella

- Herpes zoster virus (shingles),
  varicella zoster virus(chocken pox)
- Active : Varicella vaccine
- Passive: VZIG, ZIG – given 72-96 hrs
  w/n exposure
- Lifetime Immunity
- IP: 14-21 days

MOT: Respiratory route
* Contagious 1 day before rash and 6 days after first crop of vesicles

- S/sx:
  fever, malaise, headache
- Rashes: Maculopapulovesicular (covered areas), Centrifugal, starts on face and trunk and spreads to entire body
- Leaves a pitted scar (pockmark)
- CX furunculosis, erysipelas, meningoencephalitis
- Dormant: remain at the dorsal root ganglion and may recur as shingles (VZV)

Mgmt:
a. oral acyclovir
b. Tepid water and wet compresses for pruritus
c. Aluminum acetate soak for VZV
d. Potassium Permanganate (ABO)
  a. Astringent effect
  b. Bactericidal effect
  c. Oxidizing effect (deodorize the rash)

Small Pox, Variola

- DNA, Pox virus
- Last case 1977
- spreads from man-to-man only
- Active: Vaccinia pox virus
- IP: 1-3 weeks

S/sx:

- Rashes:
- Maculopapulovesiculopustular
- Centripetal
- contagious until all crusts disappeared

Dx:

- Paul's test - instilling of vesicular fluid w/ small pox into the cornea; if keratitis develops, small pox
- Cx: same with chicken pox

KAWASAKI DISEASE

- Mucocutaneous lymph node syndrome
- Children younger than 5 years old are primarily affected.
- Associated with large coronary blood vessel vasculitits
- A febrile, exanthematous, multisystem illness characterized by
    - Acute febrile phase manifested by high spiking fever, rash, adenopathy, peripheral edema, conjunctivitis and exanthem
    - sub acute phase, thrombocytosis, desquamation and resolution of fever.
    - Convalescent stage

Manifestations

- bilateral, non purulent conjuctivitis
- congested oropharynx, strawberry tongue, erythematous lymphs
- erythematous palms/soles, edematous hands/feet
- periungal desquamation, truncal rash
- CLADP (1node >1.5cm)

Diagnosis

- CBC: leukocytosis
- Platelet count >400000
- 2D echo (if coronary artery involvement is highly suggestive
- ESR and CRP elevated

Management

- IV Gamma globulin – 2g/kg as single dose for 10-12 hours. Effective to prevent coronary vascular damage if given within 10 days of onset.
- Salicylates: 80-100mg/kg/24 hours in 4 divided doses
- Symptomatic and supportive therapy

Diptheria

- Acute contagious disease
- Characterized by generalized systemic toxemia from a localized inflammatory focus
- Infants immune for 6 months of life
- Produces exotoxin
- Capable of damaging muscles especially cardiac, nerve, kidney and liver
- Increase incidence prevalence during cooler months
- Mainly a disease of childhood with peak at 2-5 years, uncommon in >6months

Corynebacterium diphtheriae, gram (+), slender, curved clubbed organism "Klebs-Loeffler Bacillus"

IP: 2-6 days

Mode of transmission is direct or indirect contact

1. Nasal – invades nose by extension from pharynx
2. Pharygeal
 - sorethroat causing dysphagia
 - Pseudomembrane in uvula, tonsils, soft palate
 - Bullneck – inflammation of cervical LN
3. Laryngeal
 - increasing hoarseness until aphonia
 - wheezing on expiration
 - dyspnea

Diagnosis

- Nose and throat swab using loeffler's medium
- Schick test – determine susceptibility or immunity in diptheria
- Maloney test – determines hypersensitivity to diptheria toxoid

Complications

Toxic myocarditis – due to action of toxin in the heart muscles (1^{st} 10-14 days)

Neuritis caused by absorption of toxin in the nerve

- Palate paralysis (2^{nd} week)
- Ocular palsy (5^{th} week)
- Diapgram paralysis (6-10wk causing GBS)
- Motor and skeletal muscle paralysis

Treatment

A. Neutralize the toxins – antidiptheria serum
B. Kill the microorganism – penicillin
C. Prevent respiratory obstruction – tracheostomy, intubation

Treatment

Serum therapy (Diptheria antitoxin)
- early administration aimed at neutralizing the toxin present in the general circulation

Antibiotics
- Penicillin G 100000mg/kg.day
- Erythromycin 40mg/kg

Nursing Intervention
- Rest.
- Patient should be confined to bed for at least 2 weeks
- Prevent straining on defecation
- vomiting is very exhausting, do not do procedures that may cause nausea
- Care for the nose and throat
- Ice collar to reduce the pain of sorethroat
- Soft and liquid diet

Whooping Cough, 100 day fever

Bordetella pertussis, B. parapertussis, B. bronchiseptica, gram (-)
IP: 3-21 days
MOT: airborne/droplet
Signs and symptoms
- Invasion or catarrhal stage (7-14days) starts with ordinary cough
- Spasmodic or paroxysmal
- 5-10 spasms of explosive cough (no time to catch breath. A peculiar inspiratory crowing sound followed by prolonged expiration and a sudden noisy inspiration with a long high pitched "whoop"
- During attack the child becomes cyanotic and the eyes appear to bulge or popping out of the eyeball and tongue protrudes

Diagnosis
- WBC count 20000-50000
- Culture with Bordet Gengou Agar

Treatment
- Erythromycin shorten the period of communicability
- Ampicillin if with allergy to erythromycin
- Heperimmune pertusis gamma globulin in <2 years old (1.25ml IM)
- Control of cough with sedatives

Dx: WHO - >21 days cough + close contact w/ pertussis px + (+) culture OR rise in Ab to FHA or pertussis toxin

*** throat culture w/ Bordet gengou agar**

Management

- CBR to conserve energy
- Prevent aspiration
- High calorie, bland diet
- Omit milk and milk product because it increases the mucous
- Refeeding of infants 20 min after vomitting
- Milk should be given at room temperature

complications
- Bronchopneumonia
- Abdominal hernia
- Severe malnutrition
- TB, asthma
- encephalitis

Pre exposure prophylaxis for Diphtheria, Pertussis, Tetanus
DPT- 0.5 ml IM
- 1 - 1 ½ months old
  2 - after 4 weeks
  3 - after 4 weeks
- 1st booster – 18 mos
- 2nd booster – 4-6 yo
- subsequent booster – every 10 yrs thereafter

PULMONARY TUBERCULOSIS
- The world's deadliest disease and remains as a major public health problem.
- Badly nourished, neglected and fatigued individuals are more prone
- Susceptibility is highest in children under 3 years
- AKA: Koch's disease: Galloping consumption

S/sx:
- Wt loss
- night sweats
- low fever,
- non productive to productive cough
- anorexia,
- Pleural effusion and hypoxemia
- cervical lymphadenopathy

PPD – ID
- macrophages in skin take up Ag and deliver it to T cells
- T cells move to skin site, release lymphokines
- activate macrophages and in 48-72 hrs, skin becomes indurated

- > 10 mm is (+)

Dx:

- Chest xray - cavitary lesion
- Sputum exam
- sputum culture

The National Tuberculosis Control Program

- Vision: A country where TB is no longer a public health problem.
- Mission: Ensure that TB DOTS services are available to the communities.
- Goal: To reduce the prevalence and mortality from TB by half by the year 2015

Targets:

1. To cure at least 85% of the sputum smear positive TB patient discovered.
2. Detect at least 70% of the estimated new sputum smear positive TB cases.

Mgmt:
short course – 6-9 months
long course – 9-12 months
Follow-up

- 2 wks after medications – non communicable
    - 3 successive (-) sputum - non communicable
    - rifampicin - prophylactic

MDT side effects

- r-orange urine
- i-neuritis and hepatitis
- p-hyperuricemia
- e-impairment of vision
- s-8th cranial nerve damage

Methods of Control

- Prompt treatment and diagnosis
- BCG vaccination
- Educate the public in mode of transmission and importance of early diagnosid
- Improve social condition

Pneumonia

1. Community acquired
Typical– Strep. Pneumoniae, H. Influenzae type B
Atypical Pneumonia – S. Aureus, M. Pneumoniae, L. Pneumophila, P. Cariini
2. Nosocomial – Pseudomonas, S. Aureus
MOT: aspiration, inhalation, hematogenous, direct inoculation, contiguous spread
CHILDHOOD PNEUMONIA
1. **No pneumonia**
- infant, 60/min and no chest indrawing

2. Pneumonia

- young infant >60/min, fast breathing without chest indrawing

3. Severe pneumonia

- fast breathing, severe chest indrawing, with one of danger signs

4. Very severe pneumonia

- below 2 mos old, fast breathing, chest indrawing, with danger signs

4 Danger Signs

1. Vomits
2. Convulsion
3. Drowsiness/lethargy
4. Difficulty of swallowing or feeding

S/sx:

1. Typical – sudden onset Fever of > 38 x 7-10 days, productive cough, pleuritic chest pain, dullness, inc fremitus, rales
2. Atypical – gradual onset, dry cough, headache, myalgia, sore throat

Watch out for complications; In 24 hours death will occur from respiratory failure

Nursing Diagnosis

- Ineffective airway clearance
- Ineffective breathing pattern
- Impaired gas exchange
- Risk for activity intolerance

Mgmt:

- Antibiotics, hydration, nutrition, nebulization
- CARI-health teaching
- Nursing Interventions
- Respiratory support
- oxygen supplementation
- mechanical ventilation
- Positioning
- Rest
- Suctioning of secretions
- Antipyretic and TSB
- Nutrition

Scarlet fever

- Group A beta hemolytic streptococcus
- Respiratory
- Incubation 2-5 days
- Fever, red sandpaper rash, white strawberry tongue, flushed cheeks, red strawberry tongue
- Diagnostics is throat culture
- Penicillin for 10 days

Bacillary Dysentery
Shigellosis

- Shiga bacillus: dysenteriae (fatal), flexneri (Philippines), boydii, sonnei; gram (-)
- Shiga toxin destroys intestinal mucosa
- Humans are the only hosts
- Not part of normal intestinal flora
- IP: 1-7 days
- MOT : oral fecal route

S/sx: fever, severe abdominal pain, diarrhea is watery to bloody with pus, tenesmus
Dx: stool culture
Mgmt: Oresol, Ampicillin, Trimethoprim-Sulfamethoxazole, Chloramphenicol, Tetracycline, Ciprofloxacin

Cholera

- Vibrio coma (inaba, ogawa, hikojima), vibrio cholerae, vibrio el tor; gram (-)
- Choleragen toxin induces active secretion of NaCl
- Active Immunization
- IP: few hours to 5 days
- MOT: oral fecal route

S/sx: Rice watery stool with flecks of mucus, s/sx of severe dehydration ie Washerwoman's skin, poor skin turgor
Dx: stool culture
mgmt: IV fluids, Tetracycline, Doxycycline, Erythromycin, Quinolones, Furazolidone and Sulfonamides (children)

Via the skin
Hookworm (Roundworm)

- Necator Americanus, Ancylostoma Duodenale
- Leads to iron deficiency and hypochromic microcytic anemia
- Gain entry via the skin
- Dx: microscopic exam (stool exam)
- Mgmt: Pyrantel Pamoate and Mebendazole
- don't give drug without (+) stool exam
- members of the family must be examined and treated also

Paragonimiasis

- Chronic parasitic infection
- Closely resembles PTB
- Endemic areas: mindoro, camarines sur, norte, samar, sorsogon, leyte, albay, basilan
- Paragonimiasis
- AKA: Lung fluke disease
- causative agent: paragonimus westermani; Trematode
- Eating raw or partially cooked fish or fresh water crabs

Signs and symptoms

- Cough of long duration
- Hemoptysis
- Chest/back pain
- PTB not responding to anti-koch's meds

Diagnosis

- sputum examination – eggs in brown spots

Treatment

1. Praziquantrel (biltrizide)
2. Bithionol

Ascariasis

- Common worldwide with greatest frequency in tropical countries.
- Has an infection rate of 70-90% in rural areas
- MOT: ingestion of embryonated egss (fecal-oral)
- Worms reach maturity 2 months after ingestion of eggs.
- Adult worms live less than 10 months(18 months max.)
- Female can produce up to 200000 eggs per day
- Eggs may be viable in soils for months or years
- Worms can reach 10-30cm in length

Initial symptom:

- loss of appetite
- Worms in the stool
- Fever
- Wheezing
- Vomiting
- Abdominal distention
- Diarhea
- dehydration

Medical Management

A. Mebendazole (antihelmintic) effect occurs by blocking the glucose uptake of the organisms, reducing the energy until death
B. Pyrantel pamoate: neuromuscular blocking effect which paralyze the helminth, allowing it to be expelled in the feces
C. Pierazine citrate: paralyze muscles of parasite, this dislodges the parasites promoting their elimination

Nursing Intervention

- Environmental sanitation
- Health teachings
- Assessment of hydration status
- Use of ORS
- Proper waste disposal
- Enteric precautions

Complications

- Migration of the worm to different parts of the body Ears, mouth,nose
- Loefflers Pneumonia
- Energy protein malnutrition
- Intestinal obstruction

Tapeworm (Flatworms)

- Taenia Saginata (cattle), Taenia Solium (pigs)
- MOT: fecal oral route
  (ingestion of food contaminated by the agent)
- s/sx: neurocysticercosis – seizures, hydrocephalus
- Dx: Stool Exam
- Mgmt: Praziquantel, Niclosamide

Pinworm

- Enterobius Vermicularis
- MOT: fecal oral route
- S/sx: Itchiness at the anal area d/t eggs of the agent
- Dx: tape test at night time
  (agents release their eggs during night time)
- flashlight
- Mgmt: Pyrantel Pamoate, Mebendazole

Nursing Intervention

- Promote hygiene
- Environmental Sanitation
- Proper waste and sewage disposal
- Antihelmintic medications repeated after 2 weeks (entire family)

PARALYTIC SHELLFISH POISONING

- A syndrome of characteristic symptoms predominantly neurologic which occurs within minutes or several hours after ingestion of poisonous shellfish
- Single celled dinoflagellates (red planktons) become poisonous after heavy rain fall preceded by prolonged summer
- Common in seas around manila bay, samar, bataan and zambales

MOT = Ingestion of contaminated bi-valve shellfish
IP = within 30 minutes
CLINICAL MANIFESTATIONS:

- **NUMBNESS OF THE FACE ESPECIALLY AROUND THE MOUTH**
- **VOMITING, DIZZINESS, HEADACHE**
- **TINGLING SENSATION, WEAKNESS**
- **RAPID PULSE, DIFFICULTY OF SPEECH (ATAXIA), DYSPHAGIA, RESPI PARALYSIS, DEATH.**

MANAGEMENT AND CONTROL MEASURES:

- **NO DEFINITE MEDICATIONS**
- **INDUCE VOMITING (EARLY INTERVENTION)**
- **DRINKING PURE COCONUT MILK (WEAKENS TOXIC EFFECT) DON'T GIVE DURING LATE STAGE IT MAY WORSEN THE CONDITION.**
- **NaHCO3 SOLUTION (25 GRAMS IN ½ GLASS OF WATER)**
- **RESPIRATORY SUPPORT**
- **AVOID USING VINEGAR IN COOKING SHELLFISH AFFECTED BY RED TIDE (15X virulence)**
- **TOXIN OF RED TIDE IS NOT TOTALLY DESTROYED IN COOKING.**
- **AVOID TAHONG, TALABA, HALAAN, KABIYA, ABANIKO. WHEN RED TIDE IS ON THE RISE.**

BOTULISM

- A True poison known to be one of the deadliest substance and usually released into the food shortly after it has been canned
- **Botulism**
- Clostridium Botulinum, gram (+), spore forming
- Ingestion of contaminated foods (canned foods), wound contamination, infant botulism (most common; ingestion of honey)
- Neurotoxins block AcH
- IP: 12-36H (canned food)
- IP: 4-14 days (wound)
- Active and passive immunization

S/sx: Diplopia, dysphagia, symmetric descending flaccid paralysis, ptosis, depressed gag reflex, nausea, vomiting, dry mouth, respiratory paralysis
Dx: gastric siphoning, wound culture, serum bioassay (food borne)
Mgmt: respiratory support, antitoxin

Leprosy

- Chronic infectious and communicable disease
- No new case arises without previous contact
- Majority are contracted in childhood, manifestation arises by 15 yrs old and will definitely diagnose at 20
- it is no hereditary
- Does not cross placenta

Cardinal Sign

A. Presence of Hansen's bacilli in stained smear or dried biopsy material.
B. Presence of localized areas of anesthesia

* **Lepromatous or malignant**
  - many microorganisms
  - open or infectious cases
  - negative lepromin test

*** Tuberculoid or benign**
  - few organism
  - noninfectious
  - positive reaction to lepromin test

s/sx:

- Early/Indeterminate – hypopigmented / hyperpigmented anesthetic macules/plaques
- Tuberculoid – solitary hypopigmened hypesthetic macule, neuritic pain, contractures of hand and foot, ulcers, eye involvement ie keratitis
- Lepromatous – multiple lesions, Loss of lateral portion of eyebrows (madarosis), corugated skin (leonine facies), septal collapse (saddlenose)

Diagnosis

- Skin smear test
- Skin lesion biopsy
- Lepromin test -

Mgmt:
MDT-RA 4073 (home meds)
Paucibacillary - 6-9 months
1. Dapsone
2. Rifampicin

Multibacillary- 12-24 months
1. Dapsone – mainstay; hemolysis, agranulocytosis
2. Clofazimine – reddish skin pimentation, intestinal toxicity
3. Rifampicin – bactericidal; renal and liver toxicity

Nursing Intervention

- Health teachings
- Counseling involving the family members and even the community
- Prevention of transmission (use of mask)

AVIAN INFLUENZA
Serious consequences for ASIA

Avian Influenza…..

- Is an infectious disease of birds caused by Type A strains of the influenza virus
- First identified in Italy more than 100 years ago
- Occurs worldwide
- Infection causes a wide spectrum of symptoms in birds, ranging from mild illness to a highly contagious and rapidly fatal disease resulting in severe epidemics
- " highly pathogenic avian influenza"

Pathogenesis

- Avian influenza do not normally infect species other than birds and pigs
- First documented infection of humans with avian flu occurred in Hong Kong in 1997
- Affected 18 humans, 6 died

Bird Flu

Human cases of influenza A (H5N1) infection have been reported in Cambodia, China, Indonesia, Thailand, and Vietnam.

Clinical manifestations

Patients develop fever, sore throat, cough, in fatal cases, severe respiratory distress may result secondary to pneumonia

A constantly mutating virus

All type A influenza virus, including those that regularly cause seasonal epidemics of influenza in humans are genetically labile and well adapted to elude host defenses

So far bird flu is mainly transmitted between birds, but experts fear the H5N1 virus could be devastating to humans if it genetically mutates and develops the capacity to be transmitted from human to human.

Deadly Avian Flu

The WHO has warned that if this happens it could trigger a new human flu pandemic, potentially killing up to 50 million people worldwide

A total of 55 people have died from the H5N1 virus since the beginning of the epidemic in 2003

Trivalent Inactivated Vaccine (TIV)

- Most widely used influenza vaccine
- Administered IM
- Indicated for all persons older than 6 months of age
- Studies in children have shown efficacy from 30-90%

STD

Gonorrhea, Morning drop, Clap, Jack

- Neisseria gonorrheae, gram (+)
- IP: 3-7 days

S/sx:

- Females: usually asymptomatic or minimal urethral discharge w/ lower abdominal pain
  sterility or ectopic pregnancy
- Male: Mucopurulent discharge, Painful urination
  decreased sperm count

DX:

- gram stain and culture of cervical secretions on Thayer Martin VCN medium

Mgmt: single dose only

- Ceftriaxone (Rocephin) 125 mg IM
- Ofloxacin (Floxin) 400 mg orally
- treat concurrently with Doxycycline or Azithromycin for 50% infected w/ Clamydia

CX:

PID, ectopic pregnancy and infertility, peritonitis, perihepatitis, Ophthalmia neonatorum, sepsis and arthritis

Syphilis
Treponema pallidum, spirochete
" Beautiful" fast moving but delicate spiral thread
IP: 10-90 days

Primary (3-6 wks after contact) – nontender lymphadenopathy and chancre; most infectious; resolves 4-6 wks

Chancre – painless ulcer with heaped up firm edges appears at the site where the treponema enters. Related to pattern of sexual behavior (genitalia, rectal, oral, lips)

BUBO – swelling of the regional lymphnode

Secondary – systemic; generalized macular papular rash including palms and soles and painless wartlike lesions in vulva or scrotum (condylomata lata) and lymphadenopathy

Tertiary – (6-40 years) - neurosyphilis/permanent damage (insanity); gumma (necrotic granulomatous lesions), aortic aneurysm

DX:

Dark-field examination of lesion- 1st and 2nd stage

Non specific VDRL and RPR

FTA-ABS

Mgmt

- Primary and secondary - Pen G
- Tertiary - IV Pen G

Chlamydia

- Chlamydia trachomatis, gram (-)
- IP: 2-10 days
- S/sx:
- Maybe asymptomatic
- Gray white discharge, Burning and itchiness at the urethral opening

DX:

- Gram stain
- Antigen detection test on cervical smear
- Urinalysis

Mgmt:

- Doxycycline or Azithromycin
- Erythromycin and Ofloxacin

CX:

- PID
- Ectopic pregnancy
- Fetus transmittal (vaginal birth)

Herpes Genitalis

HSV 2

S/sx: Painful sexual intercourse, Painful vesicles (cervix, vagina, perineum, glans penis)

- Dx:
- Viral culture
- Pap smear (shows cellular changes)
- Tzanck smear (scraping of ulcer for staining)

Mgmt:

Anti viral - acyclovir (zovirax)

- CX:
- Meningitis
- Neonatal infection (vaginal birth)

Genital Warts,
Condyloma Acuminatum

- HPV type 6 & 11, papilloma virus
- S/sx: Single or multiple soft, fleshy painless growth of the vulva, vagina, cervix, urethra, or anal area, Vaginal bleeding, discharge, odor and dyspareunia

DX:

- Pap smear-shows cellular changes (koilocytosis)
- Acetic acid swabbing (will whiten lesion)
- Cauliflower or hyperkeratotic papular lesions

Treatment

- liquid nitrogen
- podophylin resin

Mgmt:

Laser treatment is more effective

CX:

- Neoplasia
- Neonatal laryngeal papillomatosis (vaginal birth)

Candidiasis, Moniliasis

- Candida Albicans, Yeast or fungus
- S/sx: Cheesy white discharge,
- \Extreme itchiness

DX:
KOH (wet smear indicate positive result)
Mgmt:
Imidazole, Monistat, Diflucan
CX:
Oral thrush to baby (vaginal birth)

Trichomoniasis

- Trichomona vaginalis, parasite
- S/sx: Females: itching, burning on urination, Yellow gray frothy malodorous vaginal discharge, Foul smelling
- Males: usually asymptomatic
- Dx: microscopic exam of vaginal discharge
- Mgmt: Metronidazole (Flagyl); include partners
- CX: PROM

HIV and AIDS

- Retrovirus (HIV1 & HIV2)
- Attacks and kills CD4+ lymphocytes (T-helper)
- Capable of replicating in the lymphocytes undetected by the immune system
- Immunity declines and opportunistic microbes set in
- No known cure
- HIV/AIDS Reverses Development and Poses Serious Threat to Future Generations
- Since 1980s, 60m have been infected and 25m have died

Health

Health care workers often have rates of infection as high or higher than adults in general
Illness and death of skilled personnel further weakens the sector

Education

Education faces decimation of skilled teachers
Children of families struck by AIDS often have to leave school to help generate income or undertake basic household tasks
MOT:

- Sexual intercourse (oral, vaginal and anal)
- Exposure to contaminated blood, semen, breast milk and other body fluids
- Blood Transfusion
- IV drug use
- Transplacental
- Needlestick injuries

HIGH RISK GROUP

- Homosexual or bisexual
- Intravenous drug users
- BT recipients before 1985
- Sexual contact with HIV+
- Babies of mothers who are HIV+

s/sx:

1. Acute viral illness (1 mo after initial exposure) – fever, malaise, lymphadenopathy
2. Clinical latency – 8 yrs w/ no sx; towards end, bacterial and skin infections and constitutonal sx – AIDS related complex; CD4 counts 400-200
3. AIDS – 2 yrs; CD4 T lymphocyte < 200 w/ (+) ELISA or Western Blot and opportunistic infections

HIV CLASSIFICATION

CATEGORY 1 – CD4+ 500 OR MORE
CATEGORY 2 – CD4+ 200-499
CATEGORY 3 – CD4+ LESS THAN 200

HIV TEST

- **Elisa**
- **Western Blot**
- **Rapid hiv test**

How to Diagnose

HIV+
2 consecutive positive ELISA and
1 positive Western Blot Test
AIDS+
HIV+
CD4+ count below 500/ml
Exhibits one or more of the ff: (next slide)
Full blown AIDS
CD4 is less than 200/ml

Exhibits one or more of the ff:

- Extreme fatigue
- Intermittent fever
- Night sweats
- Chills
- Lymphadenopathy
- Enlarged spleen
- Anorexia
- Weight loss
- Severe diarrhea
- Apathy and depression
- PTB

    - Kaposis sarcoma
    - Pneumocystis carinii
    - AIDS dementia
- Kaposis

Treatment
Anti-retroviral Therapy (ART) – ziduvirine (AZT)
a. Prolong life
b. Reduce risk of opportunistic infection
c. Prolong incubation period
PREVENTION

- A – ABSTINENCE
- B – BE FAITHFUL
- C – CONDOMS
- D – DON'T USE DRUGS

CHAPTER 13
ENVIRONMENTAL HEALTH

Environment Health (WHO)- comprises of those aspects of human health, including quality of life, that are determined by physical, chemical, biological, social and psychological factors in the environment.
PD 856- code of sanitation
8 environmental health indicators:
1. Households with access to improved or safe water-stratified to Levels I, II, and III.
2. Household with sanitary toilets.
3. Household with satisfactory disposal of solid waste.
4. household with complete basic sanitation facilities.
5. Food Establishments
6. Food establishments with sanitary permits
7. Food handlers
8. Food handlers with health certificates

3 levels of safe water sources
Level I (Point source)- refers to a protected well (shallow or deep well), improved dug well, developed spring, or rainwater cistern with an outlet but without a distribution system. A level I facility is generally adaptable for rural areas where the houses are thinly scattered. It would normally serve 15-25 households and its outreach must not be more than 250 meters from the farthest user. The yield or discharge is generally from 40-140 liters/minute.

Level II (communal faucet system or stand post)- refers to a system composes of a source, a reservoir, a piped distribution network, and a communal faucet located not more than 25 meters from the farthest house. It is generally suitable for rural and urban areas. The typical level II system is designed to deliver 40-80 liters per capita per day to an average of 100 households, with one faucet per 4-6 households.

Level III (waterworks system)- refers to a system with a source, transmission pipes, a reservoir, and a piped distribution network for household taps. It is generally suited for densely populated areas. This level of facility requires minimum treatment of disinfection. Examples of this include water districts with individual household connections.

R.A. 9003- Ecological Solid Waste Management Act of 2000

Solid Waste may be classified as follows:

1. Municipal waste- all discarded nonhazardous household commercial and Institutional waste, street sweepings, and construction debris.

2. Health care waste- refers to the refuse that is generated in the diagnosis, treatment or immunization of human beings or animals together with those related to the production or research of the same.

3. industrial waste- refers to the refuse that arise from production and from agricultural, and mining industries.

4. Hazardous waste- are substances that pose either an immediate or long term substantial danger to human.

Hospital waste bins coding:

Black or colorless- nonhazardous and non-biodegradable waste.
Green- Nonhazardous biodegradable wastes
Yellow with biohazard symbol- pathological/ anatomical waste
Yellow with black band- pharmaceutical/cytotoxic or chemical waste.
Yellow bag that can be autoclaved-infectious wastes
Orange with radioactive symbol- radioactive wastes

Water Sanitation

The general requirements of safe drinking water:
1. Microbial quality tested trough the parameters of total coliform, fecal coliform, and heterotrophic plate count.

2. Chemical and physical quality tested trough the parameters of pH, chemical specific levels, color, odor, turbidity, hardness, and total dissolved solids.

3. Radiological quality tested through the parameters of gross alpha activity, gross beta and radon.

Food safety (NEHAP) – defined food safety as the assurance that food will not cause any harm to the consumer when it is prepared and eaten according to its intended use.

R. A. 9711- Food and Drug Administration Act

Sanitation Facilities:

1. Box and can privy (bucket latrine)- Fecal matter is collected in a can or bucket, which is periodically removed for emptying and cleaning.

2. Pit latrine (pit privy)- Fecal matter is eliminated into a hole in the ground that leads to a dug pit. Generally, a latrine refers to toilet facilities without a bowl. It can be equipped with either a squatting plate or a riser with a seat.
3. Antipolo toilet- It is made up of an elevated pit privy that has a covered latrine.

4. Septic Privy- Fecal matter is collected in a build septic tank that is not connected to a sewerage system.

5. Aqua privy- fecal matter is eliminated into a water-sealed drop pipe that leads from the latrine to a small water filled septic tank located directly below the squatting plate.

6. Overhung latrine- fecal matter is directly eliminated into a body of water such as a flowing river that is underneath the facility.

7. Ventilated-improved pit (VIP) latrine- is a pit latrine with a screened air vent installed directly over the pit.

8. Concrete vault privy- fecal matter is collected in apit privy lined eith a concrete in such a manner so as to make it water tight.

9. Chemical privy- Fecal matter is collected into a tank that contains a caustic chemical solution, which in turn controls and facilitates the waste decomposition.

10. Compost Privy- fecal matter is collected into a pit with urine ad anal cleansingmaterials with the addition of organic garbage such as leaves and grass to allow biological decomposition and production of agricultural or fishpond compost.

11. Pour flush latrine- it has a bowl with a water seal trap similar to the conventional tank flush toilet expect that it requires only a small volume of water for flushing.

12. Tank-flush toilet- feces are excreted into a bowl with a water sealed trap. The water tank that receives a limited amount of water empties into the bowl for flushing of fecal materials through the water sealed trap and into the sewerage system.

CHAPTER 14

DISASTER MANAGEMENT

Emergency – any event endangering the life or health of a significant number of people and demanding immediate action.

- May result from a natural, man-made, technological, or societal hazard (DOH,2012).
- The agency, community family, or individual can manage using his/her own resources.

Disaster – any event that causes a level of destruction, death, or injury that affects the abilities of the community to respond to the incident using available resources.

- Depending on the characteristics of the disaster, may be beyond the ability of the community to respond and recover from the incident using their own resources.
- Mass Casualty – 100 or more individuals are involved
- Multiple Casualty – more than 2 but fewer than 100 individuals are involved
- Casualties can be classified as direct/ indirect victim, displaced person, or a refugee.
- Direct Victim – individual who is immediately affected by the event
- Indirect Victim – family member or friend of the victim or a first responder
- Displaced Persons – those who have to evacuate their home, school, or business as a result of a disaster
- Refugees – group of people who have fled their home or even their country as a result of famine, drought, natural disaster, war, or civil unrest.

Types of Disasters:

1. Natural Hazard – physical force, such as typhoon, flood, landslide, earthquake, and volcanic activity
2. Biological Hazard – process or phenomenon of organic origin or conveyed by biological vectors, including exposure to pathogenic microorganisms, toxins, and bioactive substances (ex: disease outbreaks, red tide poisoning)
3. Technological Hazard – arises from technological or industrial conditions, including accidents, dangerous procedures, and infrastructure failures.
4. Societal Hazard – results from the interaction of varying political, social, or economic factors, which may have a negative impact on the community (ex: stampedes, armed conflicts, terrorist activity, riots).

5. NA-TECH (natural-technological disaster) – natural disaster that creates or results in a widespread technological problem (ex: earthquake that causes structural collapse of roadways or bridges that, in turn, brought down electrical wires and caused subsequent fires; chemical spill resulting from a flood)

Terrorism – "criminal acts, including against civilians, committed with the intent to cause death or serious bodily injury, or taking of hostages, with the purpose to provoke a state of terror in the general public or in a group of persons or particular persons, intimidate a population or compel a govt. or an international org. to do or to abstain from doing any act" (UN Security Council, 2004).

Weapons of mass destruction – any weapon that's designed or intended to cause death or serious bodily injury through the release, dissemination, or impact of toxic or poisonous chemicals, or its precursors.

Characteristics of Disasters:

- Frequency – how often a disaster occurs
- Predictability – the ability to tell when and if a disaster event will occur
- Preventability – a characteristic indicating that actions can be taken to avoid a disaster
- Imminence – speed of onset of an impending disaster
- Scope and number of casualties – the range of its effect
- Intensity – describes the level of destruction and devastation

Disaster Management Stages:

1. Preventions Stage – occurs before a disaster is imminent and is known as the "non-disaster stage."
2. Preparedness and Planning Stage – includes training in first aid, assembling a disaster emergency kit, establishing a predetermined meeting place away from home, and making a family communication plan
3. Response Stage – begins immediately after the disaster incident occurs
    a. Includes evacuation, search and rescue, and staging area (the on-site incident command station), and triage area.
    b. Disaster Triage – focus is to do as little as possible, for the greatest number, in the shortest period of time (START triage/ simple triage and rapid treatment)
4. Recovery Stage – begins when the danger from the disaster has passed and concerned local and national agencies are present in the area to help victims rebuild their lives and the community

First Responders – responsible for incident management at the local level (ex: police, fire, public health, public works, and medical emergency services)

Public Health System – broad term used to describe all of the governmental and nongovernmental organizations and agencies that contribute to the improvement of the health of populations.

The Philippine Red Cross

- Officially founded in 1947. PRC carried out 2 main functions: blood provision and disaster-related services.
- Present-day, offers 6 major services:

1. National Blood Services
2. Safety Services – training in first aid, basic life support, water safety, accident prevention
3. Social Services – guidance and counseling, psychological support, tracing service, referral service, early livelihood recovery program, hot meals
4. Volunteer Services
5. Community health and nursing services – Basic Health Education Program, Primary Health Care
6. Disaster Management Services – relief operations, deployment of disaster response teams, organization of brgy. disaster action team, preposition of relief supplies

R.A. 10121 – Philippine Disaster Risk Reduction and Management Act; specified the policy of developing and implementing a National Disaster Risk Reduction and Management Plan (NDRRMP)

- NDRRMP has 4 priority areas:

1. Disaster prevention and mitigation by reducing vulnerabilities and exposure and enhancing capabilities of communities
2. Disaster preparedness
3. Disaster response
4. Rehabilitation and recovery

Incident Command System (ICS) – standardized, on-scene, all-hazard incident management concept

- The Command Staff, composed of people who report directly to the Incident Commander, usually includes:

1. Public Information Officer – provides the public, media, and/or other agencies with required information related to the incident
2. Safety Officer – monitors operations related to the incident and advises the Incident Command on matters of operational safety, including the health and safety of responding personnel; has the authority to stop any unsafe act.
3. Liaison Officer – takes charge of coordinating with representatives from cooperating and assisting agencies or organizations.
4. General Staff – responsible for the functional aspects of the incident command structure

Community Responses to a Disaster:

1. Heroic Phase – nearly everyone feels the need to rush to help people survive
    a. Medical personnel may work hours without sleep, under dangerous and life-threatening conditions; may help out in areas in which they're not familiar and have no experience
2. Honeymoon Phase – survivors gather together and begin to tell their stories and review over and over again what has occurred
    a. Bonds are formed among victims and health care workers
    b. Gratitude is expressed for being alive
3. Disillusionment Phase – feelings of despair arise
    a. Medical personnel may begin to experience depression due to exhaustion
    b. People realize the way things were before is not the way things are now and may never be the same again
4. Reconstruction Phase – some sense of normalcy in returning
    a. Restored some of the buildings, business, homes and services
    b. Counseling support for victims
    c. People begin to look to the future

Common Individual Reactions to a Disaster

- Emotional, cognitive, physical, and interpersonal reactions to a disaster usually resolve in 1-3 months after the disaster
- Posttraumatic Stress Disorder (PTSD) – can occur following an individual's experiencing or witnessing a life-threatening event; often relive the experience through nightmares and flashbacks

CHAPTER 15

eHealth in the community

Information and communication technologies (ICTs) – diverse set of technological tools and resources used to communicate and to create, disseminate, store, and manage information.
eHealth – Use of ICT for health. May 25, 2005 the fifty – eight World Health Assembly, was adopted by the WHO recognizing eHealth as the cost -effective way using ICT in the health care service, health surveillance, health literature, health education and research.
Extensive capabilities of eHealth
Communicating with a patient through a teleconference, electronic mail (email), short message service.
Providing patient teaching with aid of electronic tools such as radio, television, computers, smartphones, and tablets
Recording, retrieving, and mining data in an electronic medical record.

According to the WHO, ehealth encompasses three main areas.

- The delivery of the health information, for health professionals and health consumers, through the internet and communications.
- Using the power of information technology and e-commerce to improve public health services.
  Ex. Through education and training of health workers.
- The use of e-commerce and e-business practice in health systems management.

Health care system builds heavily on accurate recording of obtained data.

Paper based methods may bring inconvenience when it comes on interoperability of health services, information backup and instant data access. Problems may also emerge.

1. Continuity and interoperability of care stops in the unlikely event that a record gets misplaced.
2. Illegible handwriting poses misinterpretation of data.
3. Patient privacy is compromised.
4. Data are difficult to aggregate.
5. Actual time for patient care gets limited.

Internal and external changes affecting health care informatics

1. The ability to manipulate large amounts of data.
2. The ability to relate data to cohorts of people who shares similar health problems
3. The ability to link to genomic data.

Information system benefits

1. Data are readily mapped, enabling more targeted interventions and feedback.
2. Data can be easily retrieved and recovered.
3. Redundancy of data is minimized
4. Data for clinical research becomes more available.
5. Resources are used efficiently

Data must have the following characteristics

1. **Accuracy**. Ensures that documentation reflects the event as it happened.
2. **Accessibility.** Data availability should the patient or any member of the health care staff needs.
3. **Comprehensiveness.** Data inputted should be complete.
4. **Consistency / Reliability**. Having no discrepancies in data recorded makes it consistent.
5. **Currency.** All data must be up-to-date and timely.
6. **Definition**. Data should be properly labeled and clearly defined.

DOH introduced several health information systems that aim to improve the access of health data.

1. Electronic Field Health Service Information System
2. Online National Electronic Injury Surveillance System
3. Philippine Health Atlas
4. Unified Health Management Information System

Factor affecting eHelth in the country

1. Limited health budget
2. The emergence of free and open source software
3. Decentralized government
4. Target users are unfamiliar with the technology
5. Surplus of "digital native" registered nurses. Digital native describes a person who grew up and is familiar with digital technologies and who uses them in daily living.

DOH Administrative Order No. 2010-0036, outlined the policy directions of universal health care. Known as **Kalusugan Pangkaahatan** this reform agenda has three priority health directions:

1. Financial risk protection through program enrolment and benefit delivery.
2. Improved access to quality hospitals and health care facilities.
3. Attainment of the health- related Millennium Development Goals

Electronic medical records - is basically comprehensive patient records that are stored and accessed from a computer or server.

Telemedicine – WHO define telemedicine as, "the delivery of health care services, where distance is a critical factor, by all health care professionals using information and communications technologies for the exchange of valid information for diagnosis, treatment and prevention of disease and injuries, research and evaluation and for the continuing education of the health care providers, all in the interests of advancing the health of individuals and their communities"

Four elements for telemedicine

1. Its purpose is to provide clinical support.
2. It is intended to overcome geographical barriers, connecting users who are not in the same physical location.
3. It involves the use of various types of ICT.
4. Its goal is to improve health outcomes.

eLearning is basically the use of electronic tools to aid in teaching. Can also be used to educate fellow health professionals.

Roles of community health nurses in eHealth

1. Data and records manager. Maintain the quality of data inputs in the EMRS, making sure that information is accurate, complete, consistent, correct and current.
2. Change agent. Working closely with community and implementing eHealth with them and not for them.
3. Educator. Nurses provide health education to individual and families through ICT tools.
4. Telepresenter. Needs may need to present the patient's case to a remote medical specialist.
5. Client Advocate. Nurse must safeguard patient records, ensuring that security, confidentiality, and privacy of all patient information are being upheld.
6. Researcher. Responsible for identifying possible points for research and developing a framework, based on data aggregated by the system.

Chapter 16

The use of tobacco, alcohol and drugs, poor nutritional habits, inadequate physical activity, irresponsible sexual behaviour, violence, suicide and reckless driving are examples of behaviour that often begin during youth and increase the risk of serious health problems.

- The school nurse visits four to six schools per month, with each visit lasting for 3 days or more, depending on the type of school and school location and population.
- Revisits may be done within the month in a particular school.
- Teachers who also serve as school guardians, provide primary care as necessary. Such as detection of obvious health problems and administration of first aid.
- The school nurse is responsible for planning and conducting training programs for teachers on health and nutrition.
- Poverty is associated with decreased or inferior health care and has been linked to serious health problems that result in absenteeism and failure in school.
- The school nurse and in the absence of the school nurse, the well-prepared school teacher, serving as school health guardian, can effectively manage minor complaints of illnesses, helping these children to return to or remain in class.
- There is a need for mental and physical health services for student of all ages in an effort to improve both academic performance and the sense of well-being.
- School health program were defined as :
    1. School health services
    2. School health education
    3. A healthy school environment to include both physical and psychosocial aspects of environment(WHO, 1997)

    - RA 124 in 1947- an act to provide for Medical Inspection of Children Enrolled in Private Schools, Colleges and Universities in the Philippines. This law stated that it was the duty of the school heads of private schools with a total enrolment of 300 or more to provide for a part-or full time physician for the annual medical examination of pupils and students.
    - The physicians were to render of their school health activities at the end of every quarter of each school year to the Director of Health.

- SCHOOL HEALTH SERVICES:
    - **Health Education**- these are culture sensitive and based on the identified educational needs of the target population.

Areas of concern for health education:

1. Oral Hygiene- the oral health care program involves the 7 o'clock toothbrushing habit activity.
2. Injury prevention and developing safety conscious behaviour in the use of the school playground, while engaging in sports, and the like. MAPEH period is a good time for the school nurse or teacher to talk with and counsel students about risk of developing health problems related too physical acivity.
3. Tobacco Use- Smoking is a major problem in this country.

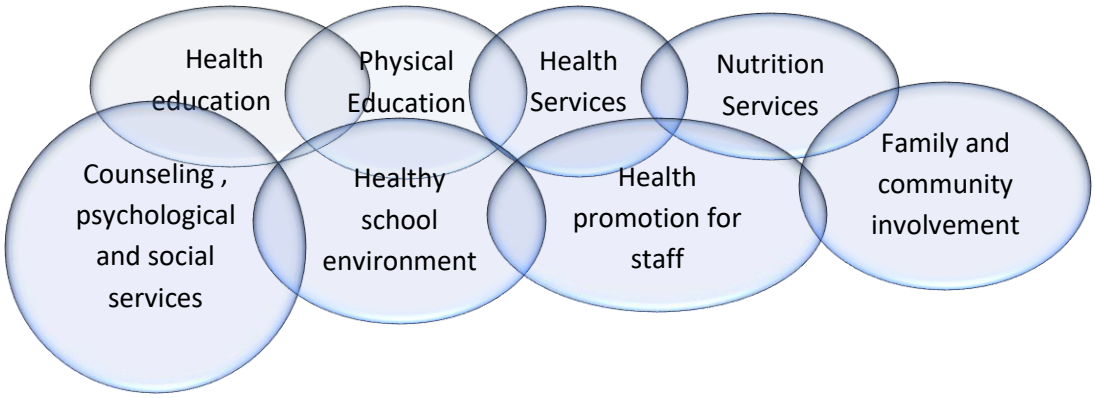
- Prevention should be emphasized in young people.

4. Substance Abuse- The use of alcohol and other drugs is associated with problems in schools, injuries, violence and motor vehicle deaths.

- National Drug Education Program- designed to promote collaboration of other sectors with the school system by establishing linkages among government, private and sociocivic organizations.
- Random drug testing is also carried as part of this program.

5. HIV, AIDS- School-base HIV and AIDS Education and prevention program is an information dissemination campaign to educate the general population on the risks of HIV and AIDS.

EIGHT COMPONENTS OF SCHOOL HEALTH RPOGRAMS



- **Physical Education** - Sedentary lifestyle is associated with obesity, hypertension, heart disease and diabetes
    - Regular Physical activity helps build and maintain healthy bones and muscles.

- **Health services**

1. Health Screening- one of the objective of the school health nursing program in the Philippines is to detect early signs and symptoms of illness, disabilities and deviations from normal.

1.1 Annual Individual health assessment- examination of the eyes, ears, nose, throat, neck, mouth, skin, extremities, posture, nutritional status, heart and lungs.

- Visual acuity test is done with the use of snellen's chart, E-chart or symbol chart.
- Ballpen click test(auditory screening)- test for hearing acuity.

1.2 Height and weight measurement- done at the beginning and at the end of the school year.

1.3 Rapid Classroom Inspection- inspection of the pupils in the classroom or while they are in line formation outside the classroom.

- Done to detect illness, particularly when there is outbreak in the community.

- **Emergency Care**- emergencies can include natural events such as typhoons, floods, and earthquake and man-made disasters, such as hazardous material spills, fires and civil disobedience.

- Basic first aid equipment should be available in all schools.
- The school nurse and school health guardians must be knowledgeable about standard first aid.
- EMS activation and Referral system should be in place.

- **Nutrition**- a variety of foods must be ingested to meet their daily requirement.

- Diets should include a proper balance of carbohydrates, proteins, and fats with sufficient intake of vitamins and minerals. S
- Skipping meals, especially breakfast and eating unhealthy snacks contribute to poor childhood nutrition.
- Food preparation is expected to be undertaken by the home economics, feeding teachers, homeroom Parent-Teachers Association on a rotation basis or both.

- **Obesity** – not considered as an eating disorder
    - must be of concern to the school nurse
    - 3 most common eating disorder:

1. Anorexia- severely restricted intake of food based on an extreme fear of weight gain.

2. Bulimia- chaotic eating pattern with recurrent episodes of binge eating.

3. Binge eating-out-of control eating of large amounts of food whether hungry or not.

- **Counseling, Psychological and social services**- children and teens struggle with depression, substance abuse, conduct disorders, self-esteem, suicide ideation, eating disorders and under or overachievement.
  - One of the most important roles of the nurse with various vague complaints, such as recurrent stomachaches, headaches, or sexually promiscuous behaviour.
  - early dtetction and treatment may prevent untoward consequences.
  - It is important for the nurse to be cognizant of the warning signs associated with suicide and to recognize and refer at-risk adolescents to appropriate mental health professionals.

- **Healthy School Environment**- the healthy school environment should consist of (WHO, 1997)

1. A Physical, psychological and social environment
2. A healthy organizational culture within the school
3. Productive interaction between the school and community.

- **Health Promotion for school staff**- staff that participate in health promotion increase their health knowledge and positively change their attitudes and behaviors relative to smoking practices, nutrition, physical activity, stress and emotional health.

Truths about adolescent suicide

1. Most adolescent who attempt suicide are torn between wanting to die and wanting to live
2. Any threat of suicide should be taken seriously
3. There are usually warning signs preceding an attempt(depression, isolation, sleep changes)
4. Suicide is more common in adolescents than Homicide
5. Education concerning suicide does not lead to an increased number of attempts.
6. Females are more likely to attempt suicide. Males are more likely to suicide
7. One attempt can result in a subsequent attempt
8. Firearms and strangulation are predominant modalities of completed suicides in children and adolescents.
9. Most adolescents who attempted suicide have not been diagnoses as having mental disorder.
10. All socioeconomic groups are affected by suicide.

Warning Signs Of Stress

- Difficulty eating or sleeping
- Use of alcohol or other substances(sedatives, sleep enhancer)
- Difficulty in making decisions
- Persistent angry or hostile feelings
- Inability to concentrate
- Increased boredom
- Frequent headaches and ailments
- Inconsistent school attendance

- **Healthy School Environment**- the healthy school environment should consist of (WHO, 1997)

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- **Health Promotion for school staff**- staff that participate in health promotion increase their health knowledge and positively change their attitudes and behaviors relative to smoking practices, nutrition, physical activity, stress and emotional health.

Standards of school nursing practice

Standards Of Practice	
Standard 1. Assessment	Nurse collects comprehensive data pertinent to the clients health or the situation
Standard 2. Diagnosis	Nurse analyzes the assessment data to determine the diagnoses or issues
Standard 3. Outcomes identification	Nurse identifies expected outcome for a plan individualized to the client or the situation
Standard 4. Planning	School nurse develops a plan that prescribes strategies and alternatives to attain expecte outcome.
Standard 5 A. Coordination of care	Nurse provides health education and employs strategies to promote health and a safe environment.
Standard 5 B. health teaching and health promotion	Nurse provides health education and employs strategies to promote health and a safe environment.
Standard 6. Evaluation	School nurse evaluates the clients progress towards attainment of outcomes.
Standards of professional performance	
Standard 7. Quality of practice	School nurse systematically enhances the quality and effectiveness of nursing practice

Standard 8. Education	School nurse attains knowledge and competency that reflects current school nursing practice.
Standard 9. Profession practice evaluation	Nurse evaluates ones own nursing practice
Standard 10. Collegiality	Nurse interacts with to the professional development of peers and school personnel as colleagues.
Standard 11. Collaboration	School collaborates with the client, family, school, staff
Standard 12. Ethics	School nurse integrates ethical provision in all areas of practice.
Standard 13. Research	School nurse integrates research findings into practice.
Standard 14. Resource utilization	School nurse considers factors related to safety, effectiveness, cost and impact.
Standard 15. Leadership	School nurse provides leadership in the professional practice setting and the profession
Standard 16. Program Management	Manages school health services.

School Nursing Practice- is a specialty unto itself. School nurses need education in specific areas, such as growth and development, public health, mental health nursing, case management, family theory, leadership and cultural sensitivity to effectively perform their roles.

CHAPTER 17 – OCCUPATIONAL HEALTH

- Occupational Health Nursing is defined as a specialty practice that focuses on the promotion, prevention, and restoration of health within the context of a safe and healthy environment. It includes the prevention of adverse health effects from occupational and environmental hazards.

- **Department of Labor and Employment** – the lead agency on Occupational Safety and Health

- They are given **RULE MAKING** and **RULE ENFORCEMENT** powers to implement stipulations of the Philippine Constitution and the Philippine Labor Code.

- The **National Profile on Occupational Safety and Health** (of the Department of Labor and Employment – Occupational Safety and Health Center (OSHC) – defined OSH as a discipline involved in *"the promotion and maintenance of the highest degree of physical, mental and social well-being of workers in all occupations."*

EVOLUTION OF OCCUPATIONAL HEALTH NURSING IN THE PHILIPPINES

- **MS. MAGDALENA VALENZUELA** – she instituted the INDUSTRIAL NURSING UNIT of the Philippine Nurses Association on November 11, 1950.

- **MS. PERLA GORRES** – from the Philippine Manufacturing Company (PMC) served as the first chairperson of the said unit.

- **MS. ANITA SANTOS** – was elected as first president on August 19, 1964. She paved way to the modification in the name of the organization to Occupational Health Nurses Association of the Philippines, Inc. on November 12, 1966.

- **June 5 – 6, 1970** – first annual convention was held.
- September 25, 1979 – the organization was registered with the Securities and Exchange Commission.

ASSESSMENT AND CONTROL OF HAZARDS IN THE WORKPLACE

- **HEALTH HAZARDS** – are the elements in the work environment that can cause work-related disease.
- **SAFETY HAZARDS** – are the unsafe conditions or unsafe acts that significantly increase the risk of a worker to be injured.

TYPES OF HAZARDS:

1. *Biological-infectious hazards* – infectious agents such as bacteria, viruses, fungi.
2. *Chemical hazards* – various forms of chemical agents.
3. *Enviromechanical hazards* – factors that cause accident, injuries, strains or discomfort (eg. Poor equipments)
4. *Physical hazards* – radiation, electricity, temperature, and noise
5. *Psychosocial hazards* – anything that causes emotional stress and strain or interpersonal problem.

CONTROL MEASURES FOR OCCUPATIONAL HAZARDS:

1. *Administrative Control* – refers to the development and implementation of policies, standards, trainings, job design and the like.
2. *Engineering* – refers to the adoption of physical, chemical or technological improvements to limit exposure to hazards.
3. *Materials Provision* – refers to providing the workers with supplies or supplements that can decrease their exposure to hazards.

DUTIES OF OCCUPATIONAL HEALTH NURSE as stated in Rule 1965.04 of the amended OSHS by DOLE:

"The duties and functions of the Occupational Health Nurse are:

(1) In the absence of a physician, to organize and administer a health service program integrating occupational safety, otherwise, these activities of the nurse shall be in accordance with the physician;

(2) Provide nursing care to injured or ill workers;

(3) Participate in health maintenance examination. If a physician is not available, to perform work activities which are within the scope allowed by the nursing profession, and if more extensive examinations are needed, to refer the same to a physician;

(4) Participate in the maintenance of occupational health and safety by giving suggestions in the improvement of working environment affecting the health and well-being of the workers; and

(5) Maintain a reporting and records system, and, if a physician is not available, prepare and submit an annual medical report, using form DOLE/BWC/HSD/OH-47, to the employer, as required by this Standards.

CODE OF ETHICS OF THE AMERICAN ASSOCIATION OF OCCUPATIONAL HEALTH NURSES:

1. The American Association of Occupational Health Nurses (AAOHN) articulates occupational and environmental health nursing values, maintains the integrity of our specialty practice area and the nursing profession, and integrates principles of social justice into nursing and health policy

2. The occupational and environmental health nurse (OHN) practices with compassion and respect for the inherent dignity, worth, and unique attributes of every person.

3. The occupational and environmental health nurse's (OHN) primary commitment is to the client, whether an individual, group, community, or population.

4. The occupational and environmental health nurse (OHN) promotes, advocates for, and protects the rights, health, and safety of the client.

5. The occupational and environmental health nurse (OHN) has authority, accountability, and responsibility for nursing practice; makes decisions; and takes action consistent with the obligation to prevent illness and injury, promote health, and provide optimal health care.

6. The occupational and environmental health nurse (OHN) owes the same duties to self as to others, including the responsibility to promote health and safety, preserve wholeness of character and integrity, maintain competence, and continue personal and professional growth.

7. The occupational and environmental health nurse (OHN), through individual and collective effort, establishes, maintains, and improves the ethical environment of the work setting and conditions of employment that are conducive to safe, quality health care.

8. Occupational and environmental health nurses (OHN) help advance the nursing profession and our specialty practice through research and scholarly inquiry, professional standards development, and the generation of nursing and health policy.

9. The occupational and environmental health nurse (OHN) collaborates with other health professionals and the public to protect human rights, promote health, and reduce health disparities.

COMPETENCY CATEGORY IN OCCUPATIONAL AND ENVIRONMENTAL HEALTH NURSING by AAOHN

1. Clinical and primary care
2. Case management
3. Workforce, workplace and environmental issues

4. Regulatory and legislative
5. Management
6. Health promotion and disease prevention
7. Occupational and environmental health and safety education and training
8. Research
9. Professionalism

IMPACT OF LEGISLATION ON OCCUPATIONAL HEALTH:

The DOLE possesses legislative and rule-making powers with regards to the following laws and standards:

1. Presidential Decree 442 Philippine Labor Code on prevention and compensation
2. The Administrative Code on Enforcement of Safety and Health Standards
3. The Occupational Safety and Health Standards
4. Executive Order 307
5. Presidential Decree 626
6. RA 9165 or the Comprehensive Drug Act
7. RA 8504 of the National HIV/AIDS Law
8. DOH: Sanitation Code
9. DA: Fertilizer and Pesticide Act
10. DENR: RA 6969
11. RA 9185 or the Comprehensive Dangerous Drug Act
12. RA 6541 of the National Building Code of the Philippines
13. RA 9231 or the Special Protection of Children against Child Abuse, Exploitation and Discrimination

THE PHILIPPINE LABOR CODE (PD 442)

- Aims to protect every citizen desiring to work locally or overseas by securing the best possible terms and conditions of employment.
- Under Article 6, all rights and benefits granted to workers under this Code shall, except as may otherwise be provided herein, apply alike to all workers, whether agricultural or non-agricultural.

WORKING CONDITIONS AND REST PERIODS:

Article 83. *Normal hours of work.* The normal hours of work of any employee shall not exceed eight (8) hours a day.

Health personnel in cities and municipalities with a population of at least one million (1,000,000) or in hospitals and clinics with a bed capacity of at least one hundred (100) shall hold regular office hours for eight (8) hours a day, for five (5) days a week, exclusive of time for

meals, except where the exigencies of the service require that such personnel work for six (6) days or forty-eight (48) hours, in which case, they shall be entitled to an additional compensation of at least thirty percent (30%) of their regular wage for work on the sixth day. For purposes of this Article, "health personnel" shall include resident physicians, nurses, nutritionists, dietitians, pharmacists, social workers, laboratory technicians, paramedical technicians, psychologists, midwives, attendants and all other hospital or clinic personnel.

Article 84. *Hours worked.* Hours worked shall include (a) all time during which an employee is required to be on duty or to be at a prescribed workplace; and (b) all time during which an employee is suffered or permitted to work.

Rest periods of short duration during working hours shall be counted as hours worked.

Article 85. *Meal periods.* Subject to such regulations as the Secretary of Labor may prescribe, it shall be the duty of every employer to give his employees not less than sixty (60) minutes time-off for their regular meals.

MEDICAL, DENTAL AND OCCUPATIONAL SAFETY

Article 156. *First-aid treatment.* Every employer shall keep in his establishment such first-aid medicines and equipment as the nature and conditions of work may require, in accordance with such regulations as the Department of Labor and Employment shall prescribe.

The employer shall take steps for the training of a sufficient number of employees in first-aid treatment.

Article 157. *Emergency medical and dental services.* It shall be the duty of every employer to furnish his employees in any locality with free medical and dental attendance and facilities consisting of:

The services of a full-time registered nurse when the number of employees exceeds fifty (50) but not more than two hundred (200) except when the employer does not maintain hazardous workplaces, in which case, the services of a graduate first-aider shall be provided for the protection of workers, where no registered nurse is available. The Secretary of Labor and Employment shall provide by appropriate regulations, the services that shall be required where the number of employees does not exceed fifty (50) and shall determine by appropriate order, hazardous workplaces for purposes of this Article;

The services of a full-time registered nurse, a part-time physician and dentist, and an emergency clinic, when the number of employees exceeds two hundred (200) but not more than three hundred (300); and

The services of a full-time physician, dentist and a full-time registered nurse as well as a dental clinic and an infirmary or emergency hospital with one bed capacity for every one hundred (100) employees when the number of employees exceeds three hundred (300).

In cases of hazardous workplaces, no employer shall engage the services of a physician or a dentist who cannot stay in the premises of the establishment for at least two (2) hours, in the case of those engaged on part-time basis, and not less than eight (8) hours, in the case of those employed on full-time basis. Where the undertaking is non-hazardous in nature, the physician and dentist may be engaged on retainer basis, subject to such regulations as the Secretary of Labor and Employment may prescribe to insure immediate availability of medical and dental treatment and attendance in case of emergency. (As amended by Presidential Decree NO. 570-A, Section 26).

Article 159. *Health program.* The physician engaged by an employer shall, in addition to his duties under this Chapter, develop and implement a comprehensive occupational health program for the benefit of the employees of his employer.

COMPENSATION

Article 86. *Night shift differential.* Every employee shall be paid a night shift differential of not less than ten percent (10%) of his regular wage for each hour of work performed between ten o'clock in the evening and six o'clock in the morning.

Article 89. *Emergency overtime work.* Any employee may be required by the employer to perform overtime work in any of the following cases:

When the country is at war or when any other national or local emergency has been declared by the National Assembly or the Chief Executive;

When it is necessary to prevent loss of life or property or in case of imminent danger to public safety due to an actual or impending emergency in the locality caused by serious accidents, fire, flood, typhoon, earthquake, epidemic, or other disaster or calamity;

When there is urgent work to be performed on machines, installations, or equipment, in order to avoid serious loss or damage to the employer or some other cause of similar nature;

When the work is necessary to prevent loss or damage to perishable goods; and

Where the completion or continuation of the work started before the eighth hour is necessary to prevent serious obstruction or prejudice to the business or operations of the employer.

Article 91. *Right to weekly rest day.*

It shall be the duty of every employer, whether operating for profit or not, to provide each of his employees a rest period of not less than twenty-four (24) consecutive hours after every six (6) consecutive normal work days.

The employer shall determine and schedule the weekly rest day of his employees subject to collective bargaining agreement and to such rules and regulations as the Secretary of Labor and Employment may provide. However, the employer shall respect the preference of employees as to their weekly rest day when such preference is based on religious grounds.

Article 92. *When employer may require work on a rest day.* The employer may require his employees to work on any day:

In case of actual or impending emergencies caused by serious accident, fire, flood, typhoon, earthquake, epidemic or other disaster or calamity to prevent loss of life and property, or imminent danger to public safety;

In cases of urgent work to be performed on the machinery, equipment, or installation, to avoid serious loss which the employer would otherwise suffer;

In the event of abnormal pressure of work due to special circumstances, where the employer cannot ordinarily be expected to resort to other measures;

To prevent loss or damage to perishable goods;

Where the nature of the work requires continuous operations and the stoppage of work may result in irreparable injury or loss to the employer; and

Under other circumstances analogous or similar to the foregoing as determined by the Secretary of Labor and Employment.

Article 93. *Compensation for rest day, Sunday or holiday work.*

Where an employee is made or permitted to work on his scheduled rest day, he shall be paid an additional compensation of at least thirty percent (30%) of his regular wage. An employee shall be entitled to such additional compensation for work performed on Sunday only when it is his established rest day.

When the nature of the work of the employee is such that he has no regular workdays and no regular rest days can be scheduled, he shall be paid an additional compensation of at least thirty percent (30%) of his regular wage for work performed on Sundays and holidays.

Work performed on any special holiday shall be paid an additional compensation of at least thirty percent (30%) of the regular wage of the employee. Where such holiday work falls on the employee's scheduled rest day, he shall be entitled to an additional compensation of at least fifty per cent (50%) of his regular wage.

Where the collective bargaining agreement or other applicable employment contract stipulates the payment of a higher premium pay than that prescribed under this Article, the employer shall pay such higher rate.

ETHICAL INSIGHT: CONFIDENTIALITY OF EMPLOYEE HEALTH INFORMATION

In dealing with health information, the employee has a right to privacy and should "be protected from unauthorized and inappropriate disclosure of personal information" (AAOHN, 2004). However, exemptions must be made. These include:

(1) life-threatening emergencies
(2) authorization by the employee to release information to others
(3) worker's compensation information
(4) compliance with government laws and regulations

LEVELS OF CONFIDENTIALITY

- **LEVEL 1:** relates to the information required by law (eg. Data on occupational illness and injuries)
- **LEVEL 2:** covers information that will assist in management of human resources (eg. Info from job placement and workability status of employee)
- **LEVEL 3:** focuses on personal health information

- disclosure of levels 1 and 2 information to management should be allowed only on a need-to-know basis.
- disclosure of level 3 information to management and regulatory agencies should only be allowed as required by law.
- disclosure of level 3 information to health insurance providers should only be made with the written authorization of the employee.