COMMUNITY HEALTH NURSING

UNIT 1 – CHN: An overview

A. COMMUNITY

Community- a group of people w/ common characteristics or interest living together w/n a territory or geographical boundary.
- place where people are found.
Community as the client/patient in CHN (client- well; patient- sick)

World Views on Community:

1. Family, Community & Society – an integral part of society & is composed of families

   Family- Intra-Familial
   Community- Intra-community
   Society- Intra-Societal
   Inter-Personal (self)                                    Inter-Familial                                  - parochial , Inter-community

2. Contraindications/ Conflicts – always present in the community (there is a solution)


Community As Setting in CHN Practice:

1. (as a setting) place where people under usual or normal conditions are found (ex. School, Homes, Work)
2. Outside of purely curative institutions (hospital is not a part of population)

   *Hospital not included d/t/:
   > centers for wellness as an element in PHC
   > health promotion& disease prevention projects (Sentrong Sigla Movement)
   > vital element in the comm.-based-referral network

B. HEALTH

1. *Health-Illness Continuum Model

   Degree of client wellness ranging from optimum wellness to death
   Dynamic state, matters as a person adopts to changes in internal & external environment to maintain a holistic well-being

   Ex. Coital Debut- sex before age 20- increase cervical CA

   External environment--------Political
   (macrosystem) Economic
   Socio-cultural -----Attitudes

   External Wellness = Dynamic State

   Death

2. High-Level Wellness Model

   Maintain a continuum balance & purposeful direction with env’t.
   Involves progress to a higher level of functioning, an open-ended & ever-expanding challenge to live to the fullest potential

   Ex. 1978------ UNICEF & WHO- Alma Ata, Russia
       - global health situation
       - Strategy/approach: PHC
       - Goal: HEALTH FOR ALL BY 2000 (old)

   1979 – Phil. LOI # 949 in relation to the Alma Ata declaration
       - PHC as the Thrust of DOH

   VISION of DOH- HEALTH FOR ALL BY 2000 & HEALTH IN THE HANDS OF THE PEOPLE BY 2020
   MISSION- In partnership w/ the people, provide equity & access to quality health services to the marginalized.
   VISION & GOAL- same with DOH, PHC program
   1994- Riga-----HEALTH FOR ALL BY 3000 AND BEYOND!

3. Agent-Host Environment Model- (EPIDEMIOLOGIC)

   Refers to the interplay of the agent (causative etiologic factor), host (w/ intrinsic factor) & env’t.
   Requires the individual to maintain a continuum of balance & purposeful direction w/ env’t.
Ex. Etiologic factor of Dengue? ---virus

<table>
<thead>
<tr>
<th>AGENT</th>
<th>HOST</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Etiologic Factors:</td>
<td>B. Intrinsic Factors &amp; Environmental Factors</td>
</tr>
<tr>
<td>1. Biological infections----virus, bacteria</td>
<td>1. Age</td>
</tr>
<tr>
<td>- fungi, protozoa, helminthes, ectoparasites</td>
<td>2. Sex (m or f)</td>
</tr>
<tr>
<td>2. Chemical- carcinogens, poisons, allergens</td>
<td>- Weak emotional; morbidity: common diseases</td>
</tr>
<tr>
<td>Ex. GMO’s – carcinogen</td>
<td>M - Mortality ( killer diseases)</td>
</tr>
<tr>
<td>MSG- poison</td>
<td>3. Behavior</td>
</tr>
<tr>
<td>3. Mechanical- car accidents, etc</td>
<td>4. Educational attainment- occupation</td>
</tr>
<tr>
<td>4. Environmental/physical- heatstroke</td>
<td>5. Prior immunologic- response</td>
</tr>
<tr>
<td>5. Nutritive- excess or deficiency</td>
<td></td>
</tr>
<tr>
<td>6. Psychological</td>
<td></td>
</tr>
<tr>
<td></td>
<td>C. Extrinsic Factors</td>
</tr>
</tbody>
</table>

B. Intrinsic Factors & Environmental Factors

1. Age
2. Sex (m or f)
3. Behavior
4. Educational attainment- occupation
5. Prior immunologic- response

C. Extrinsic Factors

1. Natural boundaries- physical, geography
2. Biological environment
3. Socioeconomic env’t- political boundary

4. Health-Belief Model

- Refers to the relationship between the person’s belief & his behavior in health
- Preventive
- Pertains to the 3 Components of Individual’s Perceptions:
  a. Seriousness of an illness
  b. Susceptibility to an illness
  c. Benefits of taking action

Ex. Male infected w/ STD & female non-infectious----- Increase susceptibility of transmission

HIV infection (commercial sex farers, sea workers, medical team)

Susceptibility, possible MOT--- unprotected sex- occupational hazard

Prevention: Safer Sex Practices

A bstinence
B e faithful
C orrect, consistent, continuous use of condom
D o not penetrate (SOP)

HIV infected age groups

Males age 40-49

seafarers ratio: 1: 5

anal sex- won’t get pregnant, common in rural

Vaginal: 1: 1000

Females 20-29

Anal: 1: 200-----highest risk

Oral – lowest risk

3. Evolutionary Based Model

- Illness & death serve an evolutionary function- based on Darwin’s “Survival of the fittest theory”

Elements:
  a. Life events – developmental variables & those associated with changes
  b. Lifestyle determinants – personal & learned adaptive strategies a person uses to make lifestyle changes
  c. Evolutionary viability w/in the social context –extent to w/c a person fx to promote survival
  d. Control perceptions
  e. Viability emotions –affective reactions developed from life events
  f. Health determinants

4. *Health Promotion Model

- Directed at increasing clients well-being
- All efforts increase well-being (no threat) ex. sex education
  Combating any possible disease (no existing disease)

5. WHO Definition

*Health- a state of complete physical, mental, & social well-being and not merely the absence of a disease, illness or infirmity

WHO: Health is a social phenomenon

- Health as a result of interplay of diff. societal factors:
  - Biological, Physical- heat, temp, Ecological- adaptation to env’t.
  - Political, Economic, Social cultural

1 Created by Niña E. Tubio
It is an outcome of many theories: Multi-Causal Theory of Health, Disease & Death

C. COMMUNITY HEALTH

Community Health - part of paramedical & medical intervention/approach concerned on the health of the whole population

Aims:
1. Promotion of health
2. Prevention of illness
3. Management of factors affecting health

<table>
<thead>
<tr>
<th>INDIVIDUAL CLIENT:</th>
<th>APPLIED STUDY:</th>
<th>COMMUNITY AS CLIENT:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anatomy</td>
<td>----</td>
<td>Demography- study of population</td>
</tr>
<tr>
<td>Physic</td>
<td>---</td>
<td>Sociology</td>
</tr>
<tr>
<td>Pathos</td>
<td>---</td>
<td>Epidemiology- study of diseases</td>
</tr>
</tbody>
</table>

D. PUBLIC HEALTH

1. WINSLOW
   - The science & art of preventing disease, prolonging life, promoting health & efficiency through organized community effort
   - To enable each citizen to realize his birth right of health & longevity
   - Major concepts:
     1. Health promotion
     2. People's participation towards self-reliance

2. HANLON
   - Most effective goal towards total development & life of the individual & his society

3. PURDOM
   - Applies holism in early years of life, young, adults, mid year & later
   - Prioritizes the survival of human being

E. NURSING

1. Virginia Henderson
   - Assisting sick individuals to become healthy & healthy individuals achieve optimum wellness

2. Dorothea Orem
   - Providing assistance to clients to achieve self-care towards optimum wellness
   - Early years- fetus- 12 years/ younger adults- 12-24 years
   - Orem- self care, autonomy----independent patient

3. Florence Nightingale
   - Placing an individual in an env’t. that will promote optimum capacity for self-reparative process
   - individual capable of self-repair & there is something to repair in an individual

F. COMMUNITY HEALTH NURSING

WHO Expert Committee on Nursing:
- Theoretical bases of CHN practice: the theories & principles of Nursing & PH

WHO CHN definition:
- Special field of nursing that combines the skills of nsg, PH & some phases of social assistance & functions as part of the total PH program for the:
  1. Promotion of health
  2. Improvement of the conditions in the social & physical environment
  3. Rehabilitation of illness & disability

Philosophy—Dr. Margaret Shetland
- Philosophy of CHN is based on the WORTH AND DIGNITY of man

CHN Goal:

Created by Niña E. Tubio
To raise the level of health of the citizenry by helping comm. & families to cope with the discontinuities in & threats to health in such a way as to maximize their potential for high-level wellness

1. **Community Health Nursing** (Maglaya)
   - The utilization of the nsg. process in the diff levels of clientele- indiv, families, pop grps, and comm.
   - concerned with
     a. promotion of health
     b. prevention of diseases
     c. disability & rehab

2. **Jacobson**
   - CHN is learned practice discipline with the ultimate goal of contributing, as individual & in collaboration with others, to the promotion of the client’s optimum level of functioning through teaching & delivery of care.

   Nursing Function:
   a. Independent
   b. Collaborative or Interdisciplinary—Health Team Approach

3. **Freeman**
   - Unique blend of nursing & public health practice aimed at developing & enhancing health capabilities of the people, service rendered by a professional nurse with the comm., grps, families, and indiv at home, in H centers, in clinics, in school, in places of work for the ff:
     1. Promotion of health
     2. Prevention of illness
     3. Care of the sick at home and rehab
     - self-reliance

**G. BASIC CONCEPTS OF CHN**

1. The Primary focus of CHN is **Health Promotion & Disease Prevention**
   - Primary goal - self reliance in health or enhanced capabilities
   - Ultimate goal - raise level of # of citizenry
   - Philosophy of CHN- Worth and dignity of man
   - The by the nature of her work has the opportunity & responsibility for evaluating the health status of people & groups & relating them to practice.

2. CHN practices -to benefit the individual, family, special groups & community
   - CHN is integrated and comprehensive

3. CHN are **generalists** in terms of practice thru out life’s continuum—its full range of health problems & needs

4. Contact w/ client continue over a long period of w/c includes all types and levels of HC
   - Levels of HC:
     a. PHC- management at the level of community
     b. SHC- regional, provincial, district, municipal, and local hosp (complicated sx)
     c. THC- sophisticated med ctr—heart ctr, QI, KI

5. Nature of CHN practice requires knowledge on biological, social sciences

6. Implicit in CHN is the Nursing Process (ADPIE)—an independent nursing function
   - Nursing Function:
     1. Independent- without supervision of MD
     2. Collaborative- in collaboration with other H team (interdisciplinary, intrasectoral)

**H. BASIC PRINCIPLES OF CHN**

(adopted from Gardner, Cobb & Jones)

1. The comm. is the patient in CHN, the family is the unit of care and the 4 levels of clientele are:
   a. Individual
   b. Pop. group (those who share common char, dev stages & common exposure to the problems ex. Children, elderly)
   c. Family
   d. Communication

2. In CHN, the client is considered as an **ACTIVE** partner NOT **PASSIVE** recipient of care-participatory approach
   - Client- active participant, full involvement recipient care
3. CHN practice is affected by dev'ts in Health technology, in particular, changes in society, in general.

4. The goal of CHN is achieved through multisectoral efforts- coordinated with other sectors.

5. CHN is a part of health care system & the larger human services system.- Nsg practice, human service

I. KEY PRINCIPLES IN CHN

1. Recognized needs of individual families & common provider is the basis for CHN practice

   *CHN process:
   a. Assessment -Data collection (family, comm.) Community diagnosis -Data analysis- H problems
   H. problems – joint effort (HT & Comm.)
   H. Needs --HT
   H. Deficit –gap bet. actual & achievable

2. Knowledge and understanding of agency objectives & policies facilitates goal achievement

   b. Planning:
   a. Prioritization
   b. Goal setting
   c. Objectives
   d. Actions
   e. Evaluation/ outcome--criteria
   --standard-measure outcome based on criteria/ obj

3. Family is unit of service (focus of service)

4. Respect values, customs and beliefs of clients

   Implementation- pt/ ct- comm.
   Focus of care: indiv, families, sp grps, comm..
   Attitude: non-judgmental

5. Health education & counseling- vital parts of CHN---role: implementation

   Health Educator & Counselor—have the same goal: Behavioral change
   Difference bet:
   Health educator – gives advice
   Counselor- gives options (never gives direct advice)

6. Collaborative working relationship with health team facilities goal achievement

   - nurse coordinator of health services

7. Periodic & containing evaluation is necessary------monitoring

8. Continuing staff education- upgrade nursing practice

9. Indigenous & existing community resources must be utilized

   Appropriate technology- methods & tech that are:
   a. Scientifically sound- experimentation
   b. Socially acceptable

10. Individuals, families, & comm. must actively participate in decision making

11. Supervision of nursing practice by qualified personnel provides guidance & direction for work----supervisor

12. Accurate recording/ reporting serve as evaluation & guide for future actions

Exercise: Who supervises the nurse in the community

1. CH Nursing practice- RN supervision
2. Project/ program implementation –MD
3. Mgt, & admin concerns- Mayor
   a. MD
   b. RN supervisor
   c. Major
   d. All of them

J. ROLES OF THE PHN

- Clinician who is a health care provider, taking care of the sick people at home or in the RHU.
- Health educator, who aims towards health promo & illness prevention thru dissemination of correct info; educating people
- Facilitator, who establishes multi-sectoral linkages by referral system
- Supervisor, who monitors & supervises the performance of midwives

- In the event that the Municipal Health Officer (MHO) is unable to perform his duties/fxns or is not available, the PHN will take charge of the MHO’s responsibilities

- Roles of the PHN II and III
- Qualifications: BSN + RN in the Phil.

**K. ROLES OF THE COMMUNITY HEALTH NURSE**

1. Planner/ Programmer- identifies needs, priorities & problems if individual, family, & comm.
   - Formulates nsg component of H plans
   - In doctorless areas, she is responsible for the formulation of the municipal health plan
   - Provides technical assistance to rural health midwives in health matters like target setting.
2. Provider of Nsg care- provides direct nsg care to the sick, disabled in the homes, clinics, schools, or places of work
   - provide continuity of patient care
3. Manager/ Supervisor- formulates care plan for the:
   - 4 Clientele:
     a. Requisitions, allocates, distributes materials (meds & medical supplies & records & reports equips
     b. Interprets and implements programs, policies, memoranda, & circulars
     c. Conducts regular supervisory visits & meetings to diff RHMs & gives feedbacks on accomplishments
4. Community Organizer- motivates & enhance community participation in terms of planning, org, implementing & evaluating H programs/ services.

5. Coordinator of Health Services- coordination with other health team & other gov’t org (GOs & NGOs) to other health programs as env’t. sanitation health education, dental health & mental health.

6. Trainer/ Health educator/ counselor- conducts training for RHMs, BHWs, hilots who aim towards H promo & illness prevention through dissemination of correct info;
   - educating people
7. Researcher- coordinates with govt. & NGOs in the implementation of studies/ researches
   - participates in the conduct of surveys studies & researches on Nsg and H related subjs.
8. Health Monitor----evaluating what deviates from normal
9. Manager ----under the nurse----midwives
10. Change Agent
11. Client Advocate

**L. RESPONSIBILITIES OF COMMUNITY HEALTH NURSE**

1. Be a part in delivering an overall health plan; its implementation & evaluation for comm.
2. Provide quality nursing services to 4 levels of clientele
3. Maintain coordination/ linkages of nsg service with other health team members NGO/GO in the provision of PH services- multisectoral app
4. Conduct research relevant to CHN services to improve provision of health service- research—to improve HC
5. Provide opportunities for professional growth and continuing education for staff devt.

Sources of CHN standards: BON & PNA
Multisectoral approach: other sectors, intersectoral linkages, intrasectoral linkages, comm. based referral network

**M. COMMUNITY HEALTH NURSING PROCESS**

1. Assessment/Diagnosis
   a. Collection of data (subjective: expressed by client or SO; objective: measurable- interview & observations, senses, intrn)
   - Categories of health problems
2. Planning
3. Implementation
4. Evaluation- 3 elements : structural, process & measurable outcome or objective

4 Tools/ Instruments for Data Collection:
1. Nursing history – subj
2. PE- Obj
CHN NOTES:
1. Primary Goal in CHN – Self-reliance in health
2. Ultimate Goal in CHN – Raise the level of health of the citizenry
3. Unit of care - Family
4. Levels of Clientele – Individual, Family, Special Population & Community
5. Primary Focus – Health Promotion & Disease Prevention
6. Philosophy Of CHN – Uphold the worth & dignity of man
7. Theoretical Bases Of CHN Practice – Theories & Principles of Nursing & Public Health
8. CHN as: People-oriented, comprehensive & integrated, focus on health

UNIT II: LEVELS OF CLIENTELE IN CHN

1. Individual
   - an open system composed of subsystem
     a. Atomistic – the basic constituents of an individual, use concepts of biology w/c in turn refers to essentialism—behavior—psychological—human behavior is dictated by experience
     b. Holistic-suprasystems—sociological in nature—social constructionism—nurture—behavior
        Sex—a biological concept (male/female)
        a sociological concept—gender—masculinity or femininity—based on culture
        on sexual orientation: attracted to opposite sex—heterosexual
        same sex ---homosexual
        both ---bisexual

2. Family
   - 2 or more individuals who commit to live together for an extended period of time not necessarily w/ marital affinity or blood relations

A. MODELS

1. DEVELOPMENTAL MODEL by Evelyn Duvall

   8 Stages of Family Development

   Stage 1- Beginning family
      - Concern: marital & sexual adjustment, fnal, communication, adjustment to roles, pre-natal educ.

   Stage 2- Early Childbearing Family
      - Concern: Changing roles, parenting

   Stage 3- Families with preschool children
      - Concern: Child discipline, childbearing, accidents, poisoning, CD

   Stage 4- Families with school age children
      - Concern: Balancing time & energy to meet demands of work, children’s needs & activities, adults social interests, harmony in marital & in-laws relations.

   Stage 5- Families with teenagers
      - Concern: Open communication., continuing intimacy in marital relation, peer pressure, sex educ.

   Stage 6- Family as Launching Center
      - Concern: Releasing children as adults, reestablishing marital dyad, identifying post parental interest, grandchildren, divorce/ separate, menopause

   Stage 7- Middle-Aged Families
      - Concern: Rebuilding marriage & maintaining satisfying relationship with aging parents children with their families, retirement plans, health, new career.

   Stage 8 – Aging Family (retirement & old age)
- Concern: Continuous maintenance of family relations, income changes & living arrangements physiologic aspects of aging, death of spouse.

**8 Family Tasks or Basic Tasks of Developmental Model:**
- Physical maintenance
- Allocation of resources- income given to wife
- Division of labor – joint parenting
- Socialization of family members
- Reproduction, recruitment & release
- "Maintenance of order- high crime rate
- Placement of members in larger society- Indication family's success
- Maintenance of motivation & morale

Criticisms: very limited & cannot apply to all situation

**2. STRUCTURAL-FUNCTIONAL MODEL (Ruth Freeman, Baylon & Maglaya)**

Initial data base
- a. Family structure and characteristics
  - nuclear- basic family
  - extended- in-law relations, or grandparents relations
  - members of household in relation to head
  - demographic data (sex- male or female, age, civil status)
    - live-in- married/ common law wife
    - male- patriarchal    female- matriarchal
  - type & structure of family
  - dominant members in health
  - general family relationship

Assessment: Family
- initial data base
- 1st level assessment
- 2nd level assessment

b. Socio- economic & cultural factors
- resources & expenses
- educ attainment
- ethnic background
- religious affiliations
- SO ( do not live with the family but influences decisions)
- Influences to larger comm.

c. Environmental factors
- housing- # of rooms for sleeping
- kind of neighborhood
- social & health facilities available
- comm. & transportatx facilities

d. Health assessment of a member- PE

e. Value placed on prevention of disease
- immunization
- compliance behavior

First Level Assessment
1. Health Threat- conditions conducive to disease, accidents or failure to realize one's health potential
   - healthy people
   - Ex. Family hx of illness - hereditary like DM, HPN
     - nutritional problems- eating salty foods
     - personal behavior- smoking, self-medication, sexual practices, drugs, excessive drinking
     - inherent personality char- short temperedness, short attn span
     - short cross infectx
     - poor home env't.
     - lack/inadequate immunization
     - hazards- fire, falls, or accidents

Created by Niña E. Tubio
2. Health Deficits- instances of failure in health maintenance (disease, disability, dev’tl lag)
   3 Types:
   a. Disease/ illness- URTI, marasmus, scabies, edema
   b. Disabilities- blindness, polio, colorblindness, deafness
   c. Developmental Problems like mental retardatx, gigantism, hormonal, dwarfism

3. Stress Points/ Foreseeable Crisis Situations
   - anticipated periods of unusual demand on individual or family in terms of adjustment or family resources
   - Ex. Entrance in school
     ■ adolescents (circumcision, menarche, puberty
     ■ courtship (falling in love, breaking up)
     ■ marriage, pregnancy, abortion, puerperium
     ■ death, unemployment, transfer or relocation, graduation, board exam

Second Level Assessment (Family tasks involved)

Family tasks that can’t be performed
- Recognition of the problem
- Decision on appropriate health action
- Care to affected family member
- Provision of healthy home environment
- Utilization of comm. resources for health care

Family Health Nursing Diagnosis

- Combination of health problems and health
  Ex. Inability of the family to recognize the health threats of a poor home environment r/t knowledge deficit

  Problem prioritization

  Nature of the problem
  Health deficit = 3
  Health threat = 2
  Foreseeable crisis = 1

  Preventive potential (ability)
  High = 3
  Moderate = 2
  Low = 1

  Modifiability
  Easily modifiable = 2
  Partially modifiable = 1
  Not modifiable = 0

  Salience
  High (serious- immediate action) = 2
  Moderate (serious not immediate) = 1
  Low (not felt) = 0

  Ex.
  A. Inability of the family to recognize the health threats of a poor home environment r/t knowledge deficit.
  B. Inability to provide care to a pregnant member with anemia as a health deficit r/t knowledge deficit.

  Score= add all (the higher the score, the higher the problem)

  Formula: __________ given score __________ x weight

Created by Niña E. Tubio
Increase possible score

Exercise: Who to visit last?
Health D A – adolescent with psychological problems
Health D B – DM
Health D C – pregnant
Health D D – typhoid (RN shd practice aseptic technique)

Clue: identify nature of problem first

Top Priority
Health case A unemployment
HD B anemia in pregnancy
HD C scabies
HT D poor home environment

B. POPULATION GROUPS

- Composed of individuals

Vulnerable groups: or “High Risk Groups” (before)

- Infants & young children – dependent to caretakers
- School age- most neglected
- Adolescents – identify crisis, HIV
- Mothers – 1/3 of population health problem (pregnancy, delivery, puerperium)
- Males – too macho to consult
- Old people – degenerative disease

*Population Pyramid—shows the age, sex & structure

C. SPECIALIZED FIELDS:

1. Community Mental Health Nsg

- A unique process which includes an integration of concepts from nursing, mental health, social psychology, psychology, community networks & the basic sciences.

  Focus: Mental Health promotion- no need to identify disease, increase mental wellness of people

  Nursing: Strengthening the support mechanism

  Psychiatric Nsg- focus: Mental Disease Prevention

  Focus: Mental Disease Prevention- identify disease & shorten disease process

2. Occupational Health Nursing

- Application of Nsg principles & procedures in conserving Health of workers in all occupations.

  Aims: Health promotion & prevention of diseases & injuries, risk minimization, ensuring safe work place
  From industrial to service

3. School Health Nsg

- The application of nsg theories & principles in the care of the school population
Components:

- School Health Services - maintain school clinic, screening all children - visual, hearing, scoliosis
- Health Instruction - health education/ counselor direct & indirect
- Healthful School Living - health monitor

- Mental health - substance abuse, sexual H
- Environmental health - food sanitation, water supply, safe environment, safe toilet
- School community - linkage - comm. organizer

UNIT III. ASSESSMENT OF COMMUNITY HEALTH NEEDS

A. Community Diagnosis:

- Descriptive research
  - Profile general picture of comm., a direct health indicator
  - Process by which the people in the comm. & H team assess the comm. H problems & needs as bases for H programs devt.
  - A learning process for the comm. to identify their own H problems & needs
  - A profile that deposits the H problems & potentials of the comm.

2 Types of Community Dx
1. Comprehensive - provides the general health profile of the comm. 
2. Specific or problem oriented - yields a comprehensive profile of a particular H problem.

Steps:

- Preparatory Phase

1. Site selection: Location of 1st criteria
   a. Poor community because they are vulnerable to disease, a health problem
   b. Free from other agency

2. Preparation of the community

3. Statement of obj - dependent of comm. Dx

4. Identify methods & instruments for data collection

  1. Method of Survey: Questionnaire
     - Census (100%) : Most ideal, enumeratx of data conducted 6 mos.
     - Sample Survey : Most practical study representative of a comm.
     - Size matters in terms of validity

  2. Interview method
     - Instrument- interview guide/ schedule
     - a. Records review
     - b. Ocular inspection/ observation
     - Instrument: checklist
     - c. Participant observation
     - Instrument: checklist

3. Finalize sampling design & methods

   a. Probability: Equal chances - random - (simple, stratified, cluster)
   b. Non- probability: Everyone will not have equal chances

4. Make a timetable
Implementation Phase

1. Data collection—uses instruments
2. Data organization/collation
3. Data Presentation (narrative, tubular, graphical)
4. Data Analysis
   - Median age decrease—young population
   - Preferred Pop.—older population—longer life span, less people dying
5. Identification of health problems
6. Prioritization of health problems
7. Development of a health plan
8. Validation and feedback—presentation of results

Evaluation Phase

1. Process evaluation
2. Product evaluation

B. STATISTICS

Statistics: A science—collection, organization, analysis, interpretation of numerical data.

Biostatistics: refers to the application of statistical method to the life science like biology, medicine.

Demography: Study of pop size, composition & spatial distribution as affected by births, deaths & migration.

Phenomenon of Variation

• Tendency of a measurable character to change from 1 individual or 1 setting to another or from 1 instant of time to another within the same individual or setting

Types of Data:

1. Constant—value remains the same from person to person, time to time, place to place
   Ex. Minutes/hour, speed
2. Variable—Ex. Temperature

Qualitative—categories are simply used to label to distinguish & group to another, rather than a basis for saying that 1 group is greater, higher than the other.
Ex. Sex, Religion, Color

Quantitative—numerical

• Can be measured
• Discrete—whole number or integral values
• Continuous—fractions, decimals, can attain any decimal

Sources of Demographic Data:

1. Survey
   a. Census
      Types:
      DE JURE—Data from place of origin
      DE FACTO—Registration where it happened
      Ex. If death happened at PGH, report in Manila regardless of place of residency—report to that place
   b. Sample survey

2. Continuing Population Registers—used computers to monitor their birth record.
3. Other records & registration systems

Sources of Data On Health

1. Vital Registration Records
RA 3753 (Civil Registry Law) registration of births, deaths to local registrars (city health officer or municipal treasurer)

Problem: Under registration & de facto registration
Unreported birth- unreported death

2. Weekly reports from field health personnel RA 3573 (Law on reporting of Notifiable Diseases)

- Report to provincial & duty health office
- Midwife reports – under supervision of the nurse
- 2 Diseases to be reported within 24H – Measles & Polio
- 3 Disease to be reported w/n a week - Tetanus Neonatorum, Severe & acute diarrhea, HIV
- Problems: under reporting- crisis oriented, concept in health, sx, dx, syndromic approach.

3. Population Census- shd have interval, accurate estimation

4. Individual Health records/ family records

- Birth cert., school clinic records, employment records, health ctr records, hosp records, health facility logbooks, death cert

5. Publications

Components Of Demography:

1. Population Size:

a. Natural Increase (NI) Formula: # of birth – # of deaths

   (immigrants) (emigrants)

c. Current Population Formula: NI + NM + P0 = Pt (Current population)

d. Growth Rate Formula: CBR - CDR

   Crude birth rate/ 1000 – crude death rate/ 1000 = current growth rate/ 1000

   Ex. 26/1000- 6/1000= 20/1000 pop growth rate

3. Population Composition:

1. Age distribution – percent in terms of age group

2. Median Age – age that divides the pop. In 2 equal parts: middle most age
   MA 20yo
   50% = 20yo
   50% = 20yo
   MA younger

3. Age- Dependency Ratio
   - used as an index of age-induced economic drain on human resources
   = number of dependent (0-14) +65
   100 individual in the prod age (15-64 y/o)

4. Sex ratio – number of males for every 100 females
   Males x 100
   Females
   = SR = 100 (M-F)
   SR > 100 ( M)
   SR < 100 ( F)

5. Population Pyramid- double bar graph depicting the age & sex structure of the pop.

6. Public Health- SR= 105
   (birth)
   SR = age
   SR = poor countries

Created by Niña E. Tubio
SR = rural communities
0-1 = vulnerable age for boys
0-6

7. Other characteristics:
   - Occupational groups, Economic groups, Educational attainment, Ethnic groups

**Population Distribution:**

1. Urban- rural- % of pop in urban Shows the proportion of people living in urban compared to rural
   - % of pop in rural areas

2. Crowding Index- No. of household members Ex. 20 = 4/rm
   Room for sleeping
   - Indicates the ease by which a CD can be transmitted from 1 host to another susceptible host

3. Population Density- no. of indiv. or indiv
   Square km Km
   - Determines congestion of the place

**C. VITAL STATISTICS**

**Vital Statistics**
- Direct health indicator

   The application of statistical measures to vital events (births or fertility, deaths or mortality & common illnesses or morbidity) that is utilized to gauge the levels of health, illness & health services of a community.

   VS = numerator x factor
   Denominator

All Numerator

- fertility- number of birth
- mortality- no. death
- morbidity- no. of cases

B. Numerator is always < denominator
   Quotient is always < 1 decimal no.

C. Factor- 1000 (100%) – 100,000

Ex. CBR
There is 0.0064 births/indiv = 6.4
X 1000
How to read: there are 6 births in every 1000 pop
There are ANS (numerator) in every factor (denominator)

**A. Fertility Rate**

1. CBR (Crude birth rate)- relative pop due to births
   Total number of births in a calendar year
   CBR = Birth x 1000
   Pop
   Ex. 25.8 = CBR >There are 26 births in every 1000 pop

2. General Fertility Rate (GFR) - true fertility rate – specific segments of pop that is fertile
   GFR = Birth
   Pop/ of women (15 to 44 y/o) x 1000
   Ex. GRF=32 There are 32 births in every woman in 15-44

**B. Mortality Rates**

1. Crude Death Rate x 1000
   Decrease in pop due to death
   CDR = death x 1000
   Pop.
   Ex. CDR= 6 there are 6 in every 1000 pop

2. Specific Mortality Rate- can apply to any pop grp

Created by Niña E. Tubio
SMR = \frac{\text{death from or particular grp} \times 1000}{\text{Pop of that group}}

a. SMR (males) = \frac{\text{death (males)} \times 1000}{\text{pop of males}}

b. SMR (females) = \frac{\text{death of females 15-44}}{\text{pop of females 15-44}}

- **Infant Mortality Rate:** IMR = \frac{\text{Death 0-1 year} \times 1000}{\text{Births}}

- **Neonatal Mortality Rate:** NMR = \frac{\text{Deaths 0-28 days} \times 1000}{\text{Births}}

- **Post Neonatal Mortality Rate:** PNMR = \frac{\text{Deaths 28 days to 1 year} \times 1000}{\text{Births}}

- NMR + PNMR = IMR

- Neonatal deaths + Post neonatal deaths = Infant deaths

Ex. Birth 200
NMR = 20
Death - 28 to 1
NMR + PNMR = IMR
20 + 10 = 30 (ANS)

3. Maternal Mortality Rate (MMR)

\[
\text{MMR} = \frac{\text{death of women r/t pregnancy, delivery, & puerperium} \times 1000}{\text{Births}}
\]

Ex. IMR = 30
There are 30 infant deaths in every 1000 births

NMR = 20
There are 20 neonatal deaths in every 1000 births

PNMR = 10
MMR = .92

4. Proportionate Mortality Rate = PMR (for any grp)

\[
\text{PMR} = \frac{\text{death from a particular grp} \times 100}{\text{total death}}
\]

Ex. 52% PMR of males = \frac{\text{deaths of males} \times 100}{\text{total deaths}}

In every 100 deaths, 52 are males

\[
\text{PMR} = \frac{\text{deaths 0-1}}{\text{total deaths}} \times 100
\]

**PROPORTIONATE MORTALITY INDICATOR**

A. Swaroop’s Index = SI

\[
\text{SI} = \frac{\text{death of 50 yrs & up} \times 100}{\text{total deaths}}
\]

The SI, the better the situation is!

B. Relative importance of a killer (TB, heart dse, diarrhea)

\[
\frac{\text{Death due to TB} \times 100}{\text{total deaths}}
\]

PMR = 30%  Ex.  TB -- In every 100 deaths, 30 are due to TB

C. Case Fatality Rate (CFR)

How is survival rate, how strong is killing power, prognosis

\[
\frac{\text{CFR} = \text{death due to particular cause} \times 100}{\text{total cases}}
\]

Ex. CFR = 98  HIV

\[
\frac{\text{death HIV} \times 100}{\text{Total cases of TB}}
\]

In every 100 cases of HIV, there are 98 deaths
D. Cause-of-death Rate (mortality rate)
    rank as a killer
    \[
    C \text{ of DR} = \frac{\text{death due to particular cause}}{\text{total pop}} \times 100,000
    \]
    Ex. C of DR = 320—TB----In every 100,000 pop there are 320 deaths due to TB

E. Prevalence Rate = (Morbidity rate)
    Rank as a common disease
    \[
    PR = \frac{\text{old and new case}}{\text{total pop}} \times 100,000
    \]
    Ex. PR = old & new case of TB x 100,000
    Ex. PR = 326 TB
    There are 326 cases of TB out of 100,000 population.

F. Incidence Rate
    \[
    IR = \frac{\text{new cases}}{\text{pop at risk}} \times 100,000
    \]

D. EPIDEMIOLOGY

Epidemiology

- Study of frequency of disease
- Study of distribution of disease or physiologic condition among human pop & the factors affecting such distribution.
- Distribution means the frequency of diseases & physiologic condition in terms of who gets sick where & when.

Basic Concepts:

1. Epidemiologic Triad: Agent- Host- env't
2. Transmission of CD: Common vehicle, source- serial- transfer- propagated from host to host
3. Incubation period: Entry of pathogens w/ enough infections load, up to appearance of the 1st s/sx
4. Herb Immunity: % of immune pop- some indiv are immune
   Dengue- aedes – daytime C
   Arthropod Malaria – anopheles- nighttime L
   Neem tree E
   A

Types of Immunity:

1. Passive: Quick to come, quick to go
   Natural- in water, breast feeding
   Artificial- serum globulin, antiserum, antitoxin

2. Active: Slow to come, slow to go
   Natural active- getting the dse itself
   Artificial- tetanus toxoid

Preg 1 --- 4th month -----------------------TT1
        --- 8th month (before delivery) ---- TT2
Preg 2 ------------------------------- TT3 (1st booster dose)
Preg 3 ------------------------------- TT4 (2nd booster dose)
Preg 4 ------------------------------- TT5 (3rd booster dose)
Factors Affecting Distribution of Disease:

1. Person- exposure, susceptibility or response to agents.
   - Influenced by intrinsic characteristic
     - Genetic/ family, prior immunologic experience
     - Age, sex, ethnic grp, physiologic status
     - Human behavior- most significant can be modified
   Some identified increase risk grps.
     - Mothers, infants, and young children
     - School children, old people, contacts
     - People far from medical assistance
     - People in areas with endemic dse
     - People at certain times

   Attack Rate- incidence of illness among exposed pop
   \[
   \text{Number of cases} \times 100 \\
   \text{Pop at Risk}
   \]

2. Place
   - Extrinsic factors, existence of etiologic factors & exposure & susceptibility of human host, influenced by extrinsic factors.

3. Time
   - Temporal patterns- fluctuations of incidence
     a. Short term- fluctuations
        - Time of day
        - Days of the week
     b. Cyclic pattern- regular pattern
        Seasonal cyclicity – annual cyclicity
        Secular cyclicity – every other year typhoid, measles

Patterns of Disease Occurrence:

- **Epidemic**
  - A situation when there is a *high incidence of new cases* of a specific dse in excess of the expected.
  - When the proportion of the susceptible are high compared to the proportion of the immunes.

  Ex. 20-30 diseases that you don't know
  Current number of cases exceeds the usual expectancy.

- **Endemic**
  - Habitual presence of a disease in a given geographic location accounting for the low number of both immunes & susceptible.
  - Causative factor is constantly available or present to the area

  Ex. Malaria, constant

- **Sporadic**
  - Disease occurs *every now & then* affecting only a small number of people relative to the total pop
  - Intermittent
  - On & off

- **Pandemic**
  - *Global* occurrence of a disease, bigger population
  - Patient epidemic- easily the person can identify the cause
Common Epidemiologic Studies:

<table>
<thead>
<tr>
<th>Retrospective (Past)</th>
<th>Cross- Sectional (Present)</th>
<th>Prospective Cohort (future)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Case Control study</td>
<td>Prevalence study- old &amp; new cases</td>
<td>- Incidence or new cases</td>
</tr>
<tr>
<td>- Show an association bet.</td>
<td>- Get prevalence of disease (Lung CA)</td>
<td></td>
</tr>
<tr>
<td>the risk factor &amp; disease</td>
<td>- Get prevalence of risk factor (smoking)</td>
<td></td>
</tr>
</tbody>
</table>

*Independent variable (Cause) - The one to be manipulated
*Dependent (Effect) - Will always be the interest of the researcher

UNIT IV. NATIONAL HEALTH SITUATION

I. Basic Health Indicators

1. Nutrition  
2. Disease Patterns  

2 Indicators to assess a national health situation

II. Disease Patterns

A. Leading Causes of Morbidity & Mortality

Context of CHN: health situation

Nutrition- under nut of 0-6 y/o
Commerciogenic malnutrition

<table>
<thead>
<tr>
<th>10 Leading Causes of Morbidity</th>
<th>10 Leading Causes of Mortality</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Pneumonia --bacterial</td>
<td>1. Disease of the heart</td>
</tr>
<tr>
<td>2. Diarrhea</td>
<td>2. Diseases of the vascular system</td>
</tr>
<tr>
<td>4. Influenza -respiratory</td>
<td>4. Pneumonia</td>
</tr>
<tr>
<td>5. HPN</td>
<td>5. Accidents</td>
</tr>
<tr>
<td>6. TB respiratory</td>
<td>6. TB –all forms</td>
</tr>
<tr>
<td>7. Diseases of the heart</td>
<td>7. COPD</td>
</tr>
<tr>
<td>8. Malaria</td>
<td>8. Conditions originating in perinatal period</td>
</tr>
<tr>
<td>9. Chickenpox</td>
<td>9. DM</td>
</tr>
</tbody>
</table>

III. Other indicators

A. Infant Mortality Rate

*2002 ---21/1000 rated based on WHO global indicator >50 high

Created by Niña E. Tubio
Increase IMR - decrease MCHS (poor nutrition and child health service)

10 Leading Causes of Infant Deaths

1. Other perinatal conditions
2. Pneumonia
3. Bacterial Sepsis of Newborn
4. Diarrhea & Gastroenteritis of presumed infectious origin
5. Congenital Pneumonia
6. Other congenital malformations
7. Disorders r/t short gestation & LBW
8. Septicemia
9. Measles

*Increase IMR = decrease MCHS
*Poor maternal child health service

B. Maternal Mortality Rate

Leading Causes Of Maternal Deaths:
1. Normal delivery and other complications r/t pregnancy occurring in the course of labor, delivery & puerperium
2. HPN complicating pregnancy, childbirth & puerperium
3. Postpartum hemorrhage
4. Pregnancy with abortive outcome
5. Hemorrhage r/t pregnancy

*Life expectancy at birth—life span either: age specific or sex specific
*Median Age- 20.1 years
*The Philippines is an agricultural country- 55%

IV. HEALTH CARE DELIVERY SYSTEM

“The totality of all policies, facilities, equipments, products, human resources & services w/c address the health needs, problems & concerns of the people. It is large, complex, multi-level & multi-disciplinary.”

FOUR QUESTIONS:

Who are served? - Only a few because only a few can afford
Who provides the services? – Health professionals
Where are the services given? – Hospitals- access physical inaccessibility- financial
What is the focus of care? – Curative

Participation in the production process ______ ability to satisfy basic need ______ health status

5 Major Functions:

1. Ensure equal access to basic health services
2. Ensure formulation of nat’l policies for proper division of labor & proper coordination of operations among the government agency jurisdictions.
3. Ensure a minimum level of implementation nationwide of services regarded as public health goods
   – Family planning, EPI
4. Plan and establish arrangements for the public health systems to achieve economies of scale—Phil Health
5. Maintain a medium of regulations and standards to protect consumers and guide providers

Created by Niña E. Tubio
Local Gov’t Units:

**R.A. 7160 Local Govt Code** – Local health board- Governor

- Municipal health officer- mayor
- Assistant - municipal
- Provincial health officer

Health Promotion- no threats, no risk- approach behavior

Health Prevention- identified health problem- avoidance behavior

Private Sector

- composed of both commercial and business orgs, non- business orgs

NGOs

- Assumes the ff roles:
  - Policy & Legislative Advocates
  - Organizers, Human Rights Advocates
  - Research & Documentation
  - Health Resource Dev Personnel
  - Relief & Disaster Management
  - Networking

**UNIT V. THE NATIONAL HEALTH PLAN**

**National Health Plan**

- A long-term directional plan for health. This is the blueprint defining the country’s health:

PROBLEMS
POLICIES
STRATEGIES
THRUSTS

**Goal:** To improve health indicators through access

- To enable the Filipino population to achieve a level of health w/c will allow Filipinos to lead a socially & economically-productive life, with longer life expectancy, low infant mortality, low maternal mortality, & less disability through measures that will guarantee access of everyone to essential HC.

**Broad Objectives:**

- Promote equity in health status among all segments of society

- Address specific health problems of the population

- Upgrade the status & transform the HCDS into a responsive, dynamic & highly efficient & effective one in the provision of solutions to changing the health needs of the population

- Promote active & sustained people’s participation in HC.

**MAJOR HEALTH PLANS TOWARDS “HEALTH IN THE HANDS OF THE PEOPLE IN THE YEAR 2020”**

Created by Niña E. Tubio
“23 IN 1993”

Refers to the 23 programs, projects, activities of the DOH for the year 1993, which marks the beginning of its journey towards DOG vision.

“Health for more in ‘94”

Activities in 1994 focused on Cancer prevention, reproductive health, mental health, and maintenance of a safe env’t.

“Health Focus in 1995” – “Think Health, Health Link”

A national & multi-sectoral health promotion strategy aimed at conveying health messages to people wherever they are aimed at building supportive environments through advocacy, community action & networking.

“Health Sector Reform Agenda”

Emphasizing on improvements in health care delivery by maximizing people’s participation in health

“Sentrong Sigla Movement”

Pertains to development & implementation of standards to provide quality health services to the people.

UNIT VI. STRATEGIES & METHODOLOGIES IN CHN

I. STRATEGIES & HEALTH STATUS TARGETS TO ACHIEVE OBJECTIVES

Strategies To Promote Equity In Health:
Priority for the vulnerable & marginalized

Marginalized People- those who live geographically & culturally isolated areas;
are victims of poverty, armed-conflict, man-made & natural disasters & poor env’t conditions.

Vulnerable Sector of the Population:
Composed of infants (0mo-1yr) & children (1-4yo)
Women of reproductive age (15-44 y/o)
Youth & adolescents & the elderly (65 & above)

A. PRIMARY HEALTH CARE AS THE KEY APPROACH

Essential care based on scientifically sound & socially acceptable methods & technology made universally available to families & community at a cost they can afford at any given stage of dev’t through their full participation towards self-reliance and self-determination.

PHC was declared in the ALMA ATA CONFERENCE in 1978, as a strategy to community health dev.
It is a strategy aimed to provide essential HC that is:

Community-based
Accessible
Part and parcel of the total socio-economic dev effort of the nation
Acceptable
Sustainable at an affordable cost

Health Care System (HCS) VS. PHC

Recipients - Few - Many

Created by Niña E. Tubio
Providers: Health professionals, Brgy. health workers
Venue: Hospitals, Community

DOH Framework:
People’s empowerment & partnership is the key strategy to achieve the goal:

“Health for All Filipinos by the Year 2000 and Health in the Hands of the People by the year 2020”.

WHAT DOES ESSENTIAL HC IN PHC MEAN?
It stands for:
E - Education of prevailing health problems
L - Locally-endemic disease prevention & control
E - Expanded program of immunization
M - Maternal & child health & family planning
E - Environmental sanitation and safe water supply
N - Nutrition & food supply
T - Treatment of communicable & non-communicable disease/conditions
S - Supply & proper use of essential drugs and herbal med
D - Dental health promotion
A - Access to & use of hospitals as centers of wellness
M - Mental health promotion

4 Major Pillars or Elements:

a. Multi-Sectoral Approach
b. Community Participation
c. Appropriate Technology
d. Support mechanism made available

1. MULTI-SECTORAL APPROACH

a. Intersectoral Linkages
b. Intrasectoral Linkages

<table>
<thead>
<tr>
<th>TYPES OF PRIMARY HEALTH WORKERS</th>
<th>INTERMEDIATE LEVEL</th>
<th>HEALTH PERSONNEL OF 1st LINE HOSPITALS</th>
</tr>
</thead>
<tbody>
<tr>
<td>VILLAGE/GRASSROOTS HEALTH WORKERS</td>
<td>General Medical Practitioners &amp; Public Health nurses &amp; Midwives</td>
<td>Physicians with specialty Nurses &amp; Dentists</td>
</tr>
<tr>
<td>EX.</td>
<td>Trained community Health worker; health auxiliary volunteer; Traditional birth attendant</td>
<td></td>
</tr>
<tr>
<td>Character</td>
<td>Initial link, 1st contact of the community</td>
<td>1st source of professional Health care</td>
</tr>
<tr>
<td></td>
<td>Work in liaison w/ the local health service workers</td>
<td>Attend to health problems beyond the competence of village health workers</td>
</tr>
<tr>
<td></td>
<td>Provide elementary curative preventive health care measures</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Establish close contact with the village &amp; intermediate level health workers</td>
<td></td>
</tr>
</tbody>
</table>

Created by Niña E. Tubio
Provide support to the frontline health workers in terms of supervision, training, referral services & supplies thru linkages with other sectors

Provide back-up health services for cases requiring hosp or dx facilities not available in HC

2. COMMUNITY ORGANIZING

- A continuous & sustained process of awareness raising, organizing, mobilizing

a. METHODS OF COMMUNITY ORGANIZING:

People’s Participation (continuous & sustained)
Awareness-Raising
Organizing
Mobilizing

b. TYPES OF COMMUNITY:

1. Unorganized
   - No P.O.

2. Organized Community
   - Should carry the interest of the majority
   - Interest for People’s Development

c. LEVELS OF PARTICIPATION

**Genuine Participation**
> Delegated Power
> Partnership
  - People Empowerment
  - Self-reliance

**Token Participation**
> Placation
> Consultation
> Information

**Non-Participation**
> Therapy
> Manipulation

d. LEVELS OF AWARENESS:

**Awareness** – The ability to identify personal concerns & troubles to bigger context
Political Socialization: Highest level. People w/ common concerns will mobilize

Political Mobilization: Communication

Interest Aggregation: People w/ problems will group together & relate to one another; identifies a common problem

Interest Articulation: People recognized problems & diff ways d/t a problem. People recognizes the problems & expresses it

Culture of Silence/Passivity: Lowest/low salience to existing problem. People are not aware but not considered as a problem. Ex. Battered wife

e. KEY CONCEPTS & PRINCIPLES OF COMMUNITY ORGANIZING:

1. Objective analysis of objective conditions
2. Basic trust on people & on their inmate potentials & capabilities
3. From the people for the people & with the people
   Subject of C. O: People
4. People want to change
5. Self-willed changes will have more meaning than imposed changes

f. CONTEXT OF COMMUNITY ORGANIZING

Current situation- CO is class based. CO is given to the poor, deprived & oppressed

g. GOALS OF COMMUNITY ORGANIZING

- Equal chance/access for people

h. COMMUNITY ORGANIZING IN HEALTH:

- Health Sector Organizing
- Establish communication based health programs

- Component of health
  - Thrust is PHC

a. PHASES/STEPS IN COMMUNITY ORGANIZING

1. Social Integration
   - Preliminary – before entry/baseline information ---Data: Secondary Source
   - Deepening – upon entry/continuously assess situation—Data: Primary Source

2. Entry (Low Key)
3 Steps

a. Deepening social integration

b. Social Preparation
   Through community leaders
   Courtesy Call
   Attendance to meeting
   Clarify & Establish rapport
   Develop Trust

c. Community Integration
   The community
   House-To-House Visit
   A continuing effort to imbibe the community’s way of life
   Deepen rapport
   Develop MUTUAL TRUST
   Formulate objectives (Active People’s Participation)

*Best method of Community integration: Direct Participation in the Production Process

3. Spot Map

- Small group formation---- a cluster of 8-15 household
  --- this is the management unit for people’s participation & health care

- Election of CHW’s
- Launching
- Community Diagnosis
- Core-Group Formation
- Phase-Out

3. APPROPRIATE TECHNOLOGY

• Method used to provide a socially & environmentally acceptable level of service or quality product at the least economic cost.

  Criteria:  F easible
            A cceptable, Affordable
            C omplex
            E ffective
            S ame
            S cope-wise/Simple

Example.

A. ACUPRESSURE/ACUPUNCTURE

• Finger pressure using the process of moxibustion

  Principles of Qi
  o Meridians – body parts (14)
  o Composed of Yin & Yang
  o Tsun – body inch – used to locate points
  o Ahshi Parts – will explain the diagnosis
  o Massage: 2-3 cycles/second (1-5 minutes/point)

B. HERBAL MEDICINE:

Created by Niña E. Tubio
1. AROMATIC MEDICINAL PLANTS

- Contains volatile oil for treatment of fever, cough, colds, itchiness & gas pain.

Ex.

- Sampaguita (Jasmine) Petals - Eyewash, Conjunctivitis, Sore Eyes (Infusion)
- Suha (Kalamansi) Leaves - Fever (Used as TSB)
- Tanglad (Lemon Grass) Plant - Fever
- Damong Marya Plant - Cough & Colds, Dysmenorrhea (Decoction)
- Sambong Leaves - Cough & Colds, Dissolves Renal Stones, HPN, Diuretics
- Yerba Buena Leaves - Arthritis, Toothache w/ swollen gums, Itchiness
- Manzanilla Leaves - Gas pains (Extract oil 1:1 veg. oil or coconut oil)
- Bawang Bulbs - HPN, Anti-Cholesterol (Eaten or as tablets)
- For Tuberculosis (Crush 1 ear & shake for weeks:Drink)
- Antiseptic (Tincture- 5 tbsp. of Gin + 1 chopped bawang shake for 10 minutes/week)
- Luya Roots - Elixir (1 part alcohol: 10 parts plant)
- Not taken on empty stomach
- Kamias Leaves - Fever (TSB)
- Sibuyas Bulbs - Cough & Colds, Increases libido

2. ASTRINGENT & BITTER-TASTING MEDICINAL PLANT

- Contains Tannin & Pectin

- Creates a lining in the intestinal mucosa that peristalsis
- Good for diarrhea & wound

A. avocado leaves
B. bayabas leaves - Also as woundwash
K. aimito leaves
D. uhat leaves - Fruits also for diarrhea
S. aging leaves
S. antol Leaves
M. angostan
K. asuy - Nuts & leaves
T. saang Gubat - Also as mouthwash

3. BITTER-TASTING MEDICINAL PLANTS

- D/T alkaloids----that acts on the CNS ----Anesthetic & Depressant Effect

a. Skin problems - Acapulco, Kalachuchi, Malunggay, Kakawati, Makabuhay
b. Depressants - To put hyperactive people to sleep: Dapdap, Dita, Makahiya
c. Aches & pains - Sambong, Damong Marya

Tsitsirika Anti-Cancer Drug ---contains velcrine

Created by Niña E. Tubio
Makabuhay  Scabies, Abortive effect, Depressant
Malunggay
Calachuchi For Scabies
Kakwate + headache
Madre De Cacao
Adella  Digitalis
Kampanyero
Dapdap, Dita Depressants
Ampalaya  Diabetes
Makahiya Impotence, Erectile dysfunction, Depressant/Sleeping
Talampunay Bronchodilator effect (Inhalation/Flower)
S/E Psychosis if used as decoction
Mayana  Crunckles (Pigsa)

4. SEEDS

- Has fixed oils that are natural irritants to helmentics: Anti-helmentics.
  Niyug-niyogan (urine)  Ascariasis
Patola (seeds)  Anti-helmentic
Ipiil-ipil Anti-Helmentic: C/I: Pregnant women—Abortive Effect
Betel nut or bunga Anti-helmentic
Balanyog Anti-Protozoan, Anti-Helmentic
Squash seeds Anti-helmentic
Lanzones- do not throw peelings instead, burn it—good insect repellant

5. GRASS FAMILY

- Good as Diuretics— for edema, fever, HPN & urinary problems
  Tubo
  Tanglad
  Pandan
  Kagon
  Pugo-pugo - As cigarette inhaler for asthma (Leaves)
  Buto-butones
  Gatases-gatas
  Pansit-pansitan/Ulasimang bato – Uric Acid, HPN
  Stones- meis hairm
  Palay (stalk) - HPN
  Mais (hair) - Renal stones

10 Medicinal Plants:

L agundi - Asthma, Cough & Colds, Dysentery, Itchiness
U lasimang bato - Uric acid, HPN

Created by Niña E. Tubio
B awang - HPN, Antiseptic
B ayabas - Diarrhea, Woundwash
Y erba Buena - Arthritis, Toothache, Swollen gums, Cough & Colds, Itchiness
S ambong - Cough & Colds, Renal stones
A mpalaya - DM
N iyug-nyogan - Ascariasis
T saang gubat - Diarrhea
A capulco (sunting) - Fungal infection, scabies (leaves)

R.A. # 8423- Utilization Of Medicinal Plants as Alternative for High Cost Medications.

Policies:
1. The indications/ uses of plants
2. The part of the plant to be used
3. Preparation of
   a. Decoction - laga/boil
   b. Poultice - tapal (may add oil)
   c. Infusion - tea at least 24H
   d. Syrup - add sugar and for storage- lasts for 3-5 days
   e. Oils - bawang, luya, mansanilya extract
   f. Ointment - with wax
   g. Tincture - alcohol
   h. Elixir - based

B. HEALTH PROMOTION

1. Health Promotion
   - Consists of activities directed towards increasing the level of well-being & actualizing the health potentials of individual, families, communities, societies

   Goals: Increase the level of wellness: No risk factor & no threats

<table>
<thead>
<tr>
<th>Health Promotion</th>
<th>Health Prevention</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Not disease-specific</td>
<td>1. Problem-specific</td>
</tr>
<tr>
<td>3. Expand positive potential for health</td>
<td>3. Prevention thwarts the occurrence of pathogenic insults to tissue &amp; well-being</td>
</tr>
</tbody>
</table>
2. Levels of Health Promotion

1. Individual Wellness
   - Self decisions on lifestyle & self-responsibility---personal habits affects health

2. Family Wellness
   - Dev't. of health behaviors & beliefs ---family (formation of behaviors)

3. Community Wellness
   - Venue for dissemination of health information & dev't. of health norms

4. Environmental Wellness
   - Harmony & balance between human beings & surroundings

5. Societal Wellness
   - Satisfaction of basic human needs, dignity, utilization of talents

3. Methods Of Health Promotion:

1. Health Education
2. Good Nutrition
3. Personality Development: Grooming & Hygiene
4. Provision of adequate housing, recreation & amenable working condition
5. Genetics
6. Periodic selective examination

4. HEALTH PROMOTION & DISEASE PREVENTION IN THE CONTEXT OF A PATHOGENESIS

Health promotion • Healthy person---------Time--------------------- • Healthy person

(Pathway Of Health)
No Risks, No Threats, No Problems

Pathway of Diseases--- • Recovery

Permanent S/Sx of Self-medication
Death - Health seeking behavior

C. DISEASE PREVENTION:

1. Primary Level Of Disease Prevention

   - Keep people healthy
   - Prevention of disease
   - Risk factors & threats present

A. Through People

   Ex. 1. Immunization: Method of health promotion

   2. Chemoprophylaxis: Intake of drugs Ex. Vit C to avoid URTI

   3. Reproduction & Sexual Health
4. Responsible Parenthood

B. Through Environmental Control

1. Safe Water Supply
   - Physical characteristics
   - Chemical characteristics-with minerals in H2O- hard water (better
   - Biological (-) for e.coli

   Common household water function = Boil H2O
   Boil with low fire, wait 5 mins after boiling
   Filtration- from ascariasis due to airborne solid block
   Water supply- 25 meters away from toilet, pig pen, poultry refuse disposal system

2. Food Sanitation/ Good Food Hygiene

   Ensure the Health of the FF:
   1. Sources of raw food- without pesticides
   2. Food handlers
   3. Environmental sanitation
   4. Safe excretal disposal (toilets)
      a. Needs H2O
      b. No need for H2O

<table>
<thead>
<tr>
<th>Water</th>
<th>No water</th>
</tr>
</thead>
<tbody>
<tr>
<td>Needs Transplant</td>
<td>Cistern flush with sewage system</td>
</tr>
<tr>
<td></td>
<td>Flying saucer-pail system (bucket latrine)</td>
</tr>
<tr>
<td>No Transplant</td>
<td>Cistern flush with septic tank</td>
</tr>
<tr>
<td></td>
<td>1. PIT- privy</td>
</tr>
<tr>
<td></td>
<td>&gt; Antipolice, bore hole, compost, twin</td>
</tr>
<tr>
<td></td>
<td>&gt; Ventilate 1 improved pit- less smell</td>
</tr>
<tr>
<td></td>
<td>&gt; Reed odorless earth closet (ROEC)</td>
</tr>
<tr>
<td></td>
<td>2. Overhung latrine (batalan) – bangin</td>
</tr>
<tr>
<td></td>
<td>3. Cat-hole latrine</td>
</tr>
</tbody>
</table>

3. Reuse Management:

   - Solid & semi-solid waste excluding human excretal
     Garbage- fruit peelings, left over food- biodegradable
     Rubbish- broken glass, plastic- non-biodegradable

   Acceptance of Reuse Management:
   1. Open burning
   2. Composting
   3. Burial

   Community Level
     a. Sanitary Landfill
        Problem: Prone to scavenging
        b. Incinerator- no residue, pure smoke

4. Vector animal reservoir control

5. Disinfestations & Sterilization

6. Good living & working condition

7. Health education - Health promotion best source of prevention

Created by Niña E. Tubio
2. Secondary Level Of Disease Prevention

- Early diagnosis & prompt intervention to halt pathological process to shorten duration, severity & return to normal functioning at earliest possible time.

a. Screening Methods

- Mass Screening: Should be simple & inexpensive
- Case Finding: Positive cases of leading causes of morbidity
  
  Gold Standard for TB test: Culture and Sensitivity
  Sputum smear microscopy- TB test

- Contact Tracing: Pt. with disease & check source of infection from family
- Multiple Screening: HIV test
- Surveillance

1. Pre-Test Counseling- risk appraisal for disease prevention
   Risk situation, Risk behavior

2. ELISA I

3. Post Test Counseling
   Behavioral modification- IMPT
   Uniqueness of individual
   Risk factor: increase probability of disease

4. ELISA II

5. Western Block Test- (-) or (+) result with post counseling (Confirmatory DX)

Characteristics Of An Ideal Screening Test:

1. Sensitivity:
   True positive rate or strength of association bet. presence of disease & Sx

2. Specificity

3. Tertiary Level Of Disease Prevention

- Applied in symptomatic phase & defects or disability is present already. Starts when the individual seeks medical help
- Rehabilitation is the goal, resting to an optimum level of functioning within the constraints of disability

   - Diagnosis
   During symptomatic phase
   - Treatment
   - Management
   Rehabilitation – starts when the individual enters the facility

II. STRATEGIES/ PROGRAMS TO PROMOTE HEALTH OF THE VULNERABLE SECTORS OF THE POPULATION

A. MATERNAL CARE PROGRAM

Strategies:

1. Provision of Regular & Quality Maternal Care Services
   - Regular & quality pre-natal care
   - Hx-taking, utilization of HBMR (Home-Based Mother’s Record) a guide in the identification of risk factors
PE: weight, ht, BP-taking

Perform head to toe assessment, abdominal exam

TT immunization

Fe supplementation: given from 5th month of preg to 2 months postpartum (100-120 mg orally/day for 210 days)

Laboratory exam: heat-acetic acid test, benedict's test

Oral/dental exam

Pre-Natal counseling

Provision of safe, delivery care

All birth attendants shall ensure clean & safe deliveries at home or at the facilities (RHUs/hospitals)

At-risk pregnancies and mothers must be immediately referred to the nearest institution

Untrained TBAs who actively practice must be identified, trained & supervised by a personnel of the nearest BHS/RHU trained on maternal care.

2. Provision of Quality Postpartum Care

Proper schedule of follow-up must be followed:

1st postpartum visit for home deliveries must be done within 24H after delivery

2nd, done at least 1 week after delivery

3rd, done 2-4 wks thereafter

Attendants must be aware of the early signs & complications.

They should follow the 3 CLEANS:

- CLEAN hands
- CLEAN surface
- CLEAN cord

3. Improvement of the health personnel’s capabilities on NB care, midwifery through trainings.

Trainings for “hilots” must also be conducted

4. Improvement on the quality of care at the First Referral Level

- Orientation, training should be done on the use of proper filling-up or HBMR card
- Proper referrals/endorsements must be done for future if-ups

5. Prevention of unwanted pregnancies through family planning services

6. Prevention & management of STDs.

7. Promotion of appropriate health practices

8. Upgrade reporting services

9. Mobilize political commitment & community involvement to provide support to basic HC delivery

B. FAMILY PLANNING PROGRAM

Goal: Maternal & Child Health Through:

a. Proper Timing of Pregnancy: Ideal age to be pregnant 20-30 y/o
b. Proper Interval of Pregnancy: Ideal spacing 3 years
   every 2 years – With risk
   every year - High risk
c. Proper # of Pregnancies: Ideal 3x
   4x – With risk

Created by Niña E. Tubio
3 Major Program Policies:

1. Improvement of family welfare with main focus on women’s health, safe motherhood & child survival
2. Freedom of choice
3. Promotion of family solidarity & responsible parenthood (except birth control)

Family Planning Method:  
2 Types of Family Planning Method

1. Spacing number of pregnancy & ideal timing

3 Types:
   a. Hormones (pills, injectables)
   b. Barrier: IUD
       - Condoms (male/female)
       - Cervical cup
       - Diaphragm
       - Vaginal Sponge – most effective among the 3 (2-3 hrs. before sex)
       - Spermicides – causes toxic syndrome
       - Dental dams
   c. Scientific Family Planning
      1. Natural
         - Cervical mucus method
         - BBT
         - Sympto-thermal – more popular
         - LAM

2. Permanent Method
   - Tubal ligation- ok even if without consent of husband
   - Vasectomy

What to discuss: basic human sexual response

<table>
<thead>
<tr>
<th>Causes</th>
<th>Possible Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Short interval of pregnancies</td>
<td>MOM</td>
</tr>
<tr>
<td></td>
<td>Bleeding, Malnutrition,</td>
</tr>
<tr>
<td></td>
<td>Anemia</td>
</tr>
<tr>
<td></td>
<td>HPN</td>
</tr>
<tr>
<td></td>
<td>BABY</td>
</tr>
<tr>
<td></td>
<td>Pneumonia, Bronchitis</td>
</tr>
<tr>
<td></td>
<td>Diarrhea, Measles</td>
</tr>
<tr>
<td></td>
<td>Congenital deformities</td>
</tr>
<tr>
<td>Pregnant before 20 or &gt; 30 y/o</td>
<td>Anemia, Miscarriage</td>
</tr>
<tr>
<td></td>
<td>Still birth</td>
</tr>
<tr>
<td></td>
<td>Prolonged labor</td>
</tr>
<tr>
<td></td>
<td>Low birth wt, Fetal death</td>
</tr>
<tr>
<td></td>
<td>Infant death</td>
</tr>
<tr>
<td></td>
<td>Physical defects</td>
</tr>
<tr>
<td>More than 4 deliveries</td>
<td>HPN, Bleeding, rupture of uterus.</td>
</tr>
<tr>
<td></td>
<td>Cervical CA</td>
</tr>
<tr>
<td></td>
<td>LB weight</td>
</tr>
<tr>
<td></td>
<td>Respiratory distress</td>
</tr>
</tbody>
</table>

C. EXPANDED PROGRAM ON IMMUNIZATION (EPI)

Goal of EPI: Reduction of morbidity & mortality of immunizable diseases
Not all diseases are immunizable

Types & Schedule of Vaccines:

<table>
<thead>
<tr>
<th>AT BIRTH</th>
<th>1 ½ months</th>
<th>2 ½ months</th>
<th>3 ½ months</th>
<th>9-12 months</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st BCG</td>
<td>DPT1</td>
<td>DPT2</td>
<td>DPT3</td>
<td>MEASLES</td>
</tr>
<tr>
<td>OPV1</td>
<td>OPV1</td>
<td>OPV3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1 Created by Niña E. Tubio
BCG: Infant – 0.05ml – ID Will not totally eliminate TB
School entrants – 0.1 ml ID (double dose) Will inhibit Leprosy

DPT:
HepB 5 ml IM – destroyed by freezing
TT

Measles .5ml. SQ Most sensitive to heat & destroyed by heat
OPV – 2 gtts/ P.O. - Trivalent (3 types)

SIDE-EFFECTS OF BCG:

a. Koch’s Phenomenon (Nisie) - Inflammation of the site of injection after 2-4 days
   - 2 to 3 wks. Abscess will ulcerate then heals leaving a scar (12 wks.)
   - Warm complex after vaccination

b. Deep abscess at site – even after 12 wks.: Incision & drainage  Tx: Powedered INH

c. Indolent ulceration- ulcer after 12 wks  Tx: Powedered INH

d. Glandular enlargement- abscess (2-3 weeks abscess will leave scar 12 wks after)

SIDE-EFFECTS OF DPT:

- Fever for a day (always bring antipyretic)-----------------------Normal
- Soreness at site within 3-4 days  Tx: Warm compress-----Normal
- Abscess after a week or more- incision & drainage ------Not normal
- Convulsions------Emergency: post-pone giving of next dose

SIDE-EFFECT OF MEASLES:

- Fever 5-7 days after within 1-4 days------Normal
- Mild rashes --------if it does not disappear-----Roseola

Remember the Principles:

* COLD CHAIN

- A system used to maintain the potency of a vaccine from that of manufacturer to the time it is given to child or pregnant woman.

Principles:

I. Storage- it should not exceed:
- 6 months @ the regional level
- 3 months @ the provincial/district level
- 1 month @ main health centers (with refrigerators)
- Not more than 5 days @ health centers (using transport boxes)

**Important Points To Remember:**

- Arranging of stored vaccine according to:
  - Type
  - Expiration date
  - Duration of storage
  - # of times they have been brought out to the field
- The vaccine stored the LONGEST & THOSE THAT WILL EXPIRE FIRST shd be distributed or used 1st.
- It is a MUST to mark ampules/vials with an “X” mark each time they are carried to the field, because if a VACCINE IS NOT USED on the 3rd trip, it must already BE DISCARDED.

**II. Transport**

Use of cold dogs

**III. Handling**

Once opened or reconstituted, vaccines must be placed in a special cold pack during immunization sessions.

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>Half life</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCG</td>
<td>4 hours</td>
</tr>
<tr>
<td>DPT</td>
<td></td>
</tr>
<tr>
<td>Polio</td>
<td></td>
</tr>
<tr>
<td>Measles</td>
<td>8 hours</td>
</tr>
<tr>
<td>TT</td>
<td></td>
</tr>
<tr>
<td>HepB</td>
<td></td>
</tr>
</tbody>
</table>

**TARGET SETTING:**

- Involves the calculation of the eligible population.
- “ELIGIBLE POPULATION” consists of any grp of people targeted for specific immunizations d/t susceptibility to one or several of the EPI diseases.

**D. UNDER FIVE CARE PROGRAM/ CONTROL OF DIARRHEAL DISEASES**

**UFC Program**

- A package of child health-related services focused on the 0-59 months old children to assure their wellness and survival.

**A. GROWTH & HEALTH MONITORING (GMC)**
A standard tool used in health centers to record vital information relative to child G & D, to assess signs of malnutrition

- Sallen “Ming Scale”, Bar & Detect type scales are being used
- All newborns must be enrolled for UFCP

**B. ORAL REHYDRATION THERAPY**

**Diarrhea:**
(Uusual frequency of bowel movements more than 3x/day)
(Marked change in the amount of stool)
(Increase in stool liquidity)

**3 Classifications of Diarrhea:**

1. **Mild**
   - 5-10 unformed stools/24H ------mild dehydration
2. **Moderate**
   - 10-15 unformed stools/24H ------moderate dehydration
3. **Severe**
   - >15 unformed stools/24H with associated s/sx ------severe

**Measures on Diarrhea Prevention:**
- Breastfeed infants
- Provide appropriate supplemental feeding
- Handwashing
- Utilize clean & potable water
- Clean toilet & observe proper feces disposal
- Immunize the child with measles

**3 Classification of Dehydration:**

1. **Mild**
   - 1st Sign: Thirst
   - Sunken Fontanels & eyeballs
   - Dry lips
   - Irritable but conscious
   - (-) Skin Fold Test
   - Tx: 1st: Give ORS for 4-6H
     2nd: Then reassess after 4-6H
     - < 2 y/o = ½ cup rice H2O/ or ½ glass of ORS after each bout of watery stool
     - 2 years & above = 1 cup rice water or 1 glass of ORS

2. **Moderate**
   - Sign: Lethargic
   - Normal blood glucose
   - (+) Skin Fold Test - 10% weight loss
   - Same Management

3. **Severe**
   - Sign: Comatose
   - Almost (-) urine output
   - Dry tear ducts
   - (+++) Skin Fold Test -15% wt loss

**Management for Moderate & Severe:**

**IVF**

Available?
**DIARRHEA MANAGEMENT AT HOME:**

### 3 F's

<table>
<thead>
<tr>
<th>Fluids</th>
<th>Frequent feeding</th>
<th>Fast Referral</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oresol</td>
<td>Continue breastfeeding/SF With children over 6 mos; cereals/ starchy foods mixed with meat or fish &amp; vegetables</td>
<td>If child doesn’t get better in 3 days, or if danger signs develop—refer patient</td>
</tr>
<tr>
<td>Rehydration Therapy</td>
<td>Mashed banana or any fresh fruit Feed the child at least 6x/day After diarrhea episode, feed 1 extra meal/day for 2 weeks</td>
<td>Danger signs: Fever Sunken fontanel Sunken eyeball Frequent watery stools Repeated vomiting Blood in stool Poor intake of meals Weakness</td>
</tr>
<tr>
<td>Encourage/ensure intake of any fruit juices, &quot;am&quot;, &quot;lugaw&quot;, homemade soup</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**ORESOL:**

1 Pack to 1 liter of water

Contains:

- Glucose for Na absorption
- NaCl for fluid retention
- NaHCO3 to serve as a buffer system
- KCL for smooth muscle contraction

**Home-Made Oresol:**

1 L water 1 glass water:
8 tsp of sugar OR 2 tsp sugar
1 tsp salt 1 pinch of salt

**REMEMBER:**

- Infant must be given ¼ - ½ cup every after LBM
- Child must be given ½ - 1 cup every after LBM
- Adult must be given 1 or more cups every after LBM

* No antibiotics must be given to a diarrheic patient except in infectious diarrhea like cholera.

### C. BREASTFEEDING

Unique characteristics of Breast milk:

- B Fresh
- R Reduced allergic reaction
- F Resh
- E Motional bonding

Created by Niña E. Tubio
Economical
Easily established
Always available
Digestible
Safe/maintains the stool soft
Nutritious
Temperature always right
Immunity
GIT disorders are decreased

Difference of breast milk from formula milk:

<table>
<thead>
<tr>
<th>Breastmilk</th>
<th>vs.</th>
<th>Formula</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHO</td>
<td>&gt;</td>
<td>CHO</td>
</tr>
<tr>
<td>CHON (LACTALBUMIN)</td>
<td>&lt;</td>
<td>CHON (CASEIN)</td>
</tr>
<tr>
<td>Fats</td>
<td>=</td>
<td>Fats</td>
</tr>
<tr>
<td>Linoleic acid content (3x)</td>
<td>&gt;</td>
<td>Linoleic acid content</td>
</tr>
<tr>
<td>Minerals</td>
<td>&lt;</td>
<td>Minerals</td>
</tr>
</tbody>
</table>

* The high CHON & mineral content of cow's milk may overwhelm the NB's kidney, thus it still needs to be diluted. Casein is more difficult to digest.

Laws:  
* E.O. 51 MILK CODE OF THE PHILIPPINES
* R.A. 7600 MOTHER-CHILD FRIENDLY HOSPITAL

D. CONTROL OF ACUTE RESPIRATORY TRACT INFECTIONS (CARI)

Goal: Mortality & Morbidity Reduction of Pneumonia

Program:

1. Assessment:

   History: Subjective
   Age
   Cough & Duration
   Able to drink or stop feeding
   Fever ----duration
   Convulsion

   PE: Objective
   Weight, Height
   RR- one whole minute
   Fast Breathing
   - Less than 2 months — 60/min or >
   - 2 months- 1 year — 50/min or >
   - 1-5 y/o — 40/min or >

   Observe for:
   - Chest in-drawing
   - Stridor during inhalation
   - LOC
   - Wheeze during exhalation
   - Fever
   - Malnutrition
   - Level of consciousness

2. STANDARD CLASSIFICATION OF ILLNESS:

I. Infants 2 months to 5 y/o

1
Created by Niña E. Tubio
1. VERY SEVERE DISEASE:

If any 3 of the 5 Danger signs are present

S & Sx:
  a. Not able to drink
  b. Convulse
  c. Sleepy
  d. Stridor
  e. Severe malnutrition

Tx:
  1. Refer urgently to hospital
  2. 1st dose of antibiotics
  3. Tx of fever (TSB) + wheeze (nebulize)
  4. Anti-malarial

2. PNEUMONIA:

S & Sx:
  a. Chest in-drawing
  b. Nasal flaring
  c. Grunting
  d. Cyanosis

2 Types:

a. Severe Pneumonia

  Sx: Chest in-drawing, cyanosis, nasal flaring, grunting

  Tx: Same with very severe but anti-malarial is not given

b. Not Severe Pneumonia

  Sx: No chest in-drawing and fast breathing

  Tx: 1. Home care- tsb, nutrition, steam inhalation
       2. Antibiotics- for 2 days & follow up after 2 days
          a. If it improves, consume all meds finish the course of the treatment.
          b. If worse, refer.

3. NO PNEUMONIA

Assess for other problems & provide home care
No Chest-indrawing, No fever
If with Sore throat in children: Mild, warm tea with syrup.
If chronic, refer
Treat ear discharge

II. Infants less than 2 months

1. VERY SEVERE DISEASE

Sx: Stopped feeding well
Convulsions
Abnormally sleepy
Stridor
Wheeze
Severe malnutrition & Fever of 38 °C or Hypothermia (<35.5°C).

Tx: Refer urgently to hospital
    Keep warm
    Give first dose of antibiotic

2. PNEUMONIA

Sx: Severe Chest-indrawing & Fast Breathing

Tx: Same as severe

STANDARD ARI/PNEUMONIA Case Management (EO 110-E s. 1991)

Cotrimoxazole adult tabs
Injectable penicillin should be regularly available in DOH facilities
IM gentamycin
IM chloramphenicol

● No DOH fund shall be used to regularly provide cough meds except only for the ff emergency conditions:
  ● Single ingredient cough suppressant for severe pertussis
  ● Single antihistamine for confirmed allergic conditions such as allergic rhinitis.

● O2 & flow meters must be regularly available in all gov't hospitals, with O2 delivered properly according to
  Standard ARI/ Pneumonia Case Management

● Children found to have severe pneumonia, very severe pneumonia, wheezing, otitis media, streptococcal sore
  throat should be referred to Municipal Health Officer (MHO) or hospital physicians for proper management according
  to the referral scheme.

STRATEGIES TO ADDRESS SPECIFIC HEALTH PROBLEMS

● COMMUNICABLE DISEASE PREVENTION & CONTROL

  Communicable Diseases

    Chronic communicable
    Tuberculosis
    Leprosy (LCP)

    Vector-Borne communicable diseases
    Malaria (MCP)
    Schistosomiasis
    Filariasis (FCP)
    H-fever (dengue)

1. NATIONAL TUBERCULOSIS CONTROL PROGRAM (NTBCP)
“Tuberculosis is a highly infectious, chronic, respiratory disease caused by TB bacilli. It is one of the 10 leading causes of morbidity & mortality in the Philippines. Which is also known as “Koch’s Dse”.

**Objective of the Program:**

To control TB by reducing the annual risk of infection (prevalence & mortality rates)

**Key Policies:**

**Prevention**

- BCG vaccination under the EPI program
- Annual identification of at least 45% of its prevalence
- Public health education re: PTB mode of transmission, methods of control & importance of early dx
- Provide outreach services for home supervision of patients in Multi-Drug Therapy & also for preventive tx of contacts.

**Case Finding:**

- Direct sputum microscopy for identified TB symptomatics
- X-ray exam of TB symptomatics who are (-) after 2 or more sputum exam
- Establishment of passive & active collection points for sputum samples of all identified TB symptomatics, as well as validation centers to ensure the standard & quality of sputum exam.
- Case finding & treatment services shall be made available in the BHS/RHUs

**Treatment:**

- All TB cases must be treated for free, on ambulatory and domiciliary (home) basis, except those with acute complications & emergencies.
- All sputum positive & cavitary cases shall be given priority for short course chemotherapy or SCC for 6 mos.
- Standard Regimen or SR for a year or intermittent SCC for 6 mos. shall be given to all infiltrative but sputum negative.

SR: Isoniazid and streptomycin sulfate
SCC: Combo pack, Multi drug therapy

What is the purpose of SCC-MDT:

- Prevent developing resistance against the three drug combinations
- Shorten duration of treatment usually treatment lasts from 5-10 years. With SCC-MDT, tx can be reduced to a minimum of 6 months
- Eradicate & completely prevent the relapse of the disease

**Direct Observation Treatment of Short –Course Chemotherapy (DOTS)**

“Tutok-Gamutan”

**PTB TREATMENT REGIMEN**

**Categories:**

**6 SCC:**

Patient will be:

<table>
<thead>
<tr>
<th>2 months on</th>
<th>Rifampicin</th>
<th>Isoniazid</th>
<th>Pyrazinamide</th>
<th>Rifampicin</th>
</tr>
</thead>
</table>

Indicated for patients who are:

Created by Niña E. Tubio
• (+) Sputum smear
• Seriously ill
• (-) Sputum smear, (+) extensive lung lesion
• (+) Extrapulmonary cases

8 SCC:
Patient will be:
2 months on Rifampicin + 4 months Isoniazid +5 months Ethambutol
Pyrazinamide Streptomycin

Indicated for those with Relapse:
○ Failures
○ Others

4 SCC:
Patient will be:
2 months on Rifampicin + 2 mos Isoniazid
Pyrazinamide

Indicated for PTB minimal
(-) Sputum smear

Phases of Treating a TB patient:
1. Intensive Phase 2 months
   Diagnostic: Sputum Exam
   If (+), proceed to
   Rifampicin
   Isoniazid
   Pyrazinamide
2. Maintenance Phase + 4 months on
   If still (+) TB colonies proceed to
   Rifampicin
   Isoniazid
3. Extensive Phase up to 12 months on
   Rifampicin
   Isoniazid

2. LEPROSY CONTROL PROGRAM:
Leprosy is a chronic disease of the skin & peripheral nerves caused by Mycobacterium Leprae

WHO CLASSIFICATION OF LEPROSY
1. Paucibacillary (tuberculoid & Indeterminate) - non-infectious
   Duration of treatment: 6-9 months
2. Multibacillary (Lepromatous & Borderline) - infectious
   Duration of treatment: 24- 30 months

Objectives of the Program:
● Provide MDT to all leprosy cases within 3 years & complete the treatment of 90% of all cases out on MDT w/n the prescribed period.
● Identify all correctible deformities & institution of appropriate intervention
● Reduce the stigma attached to the disease thru IEC
● Formulate research proposals on topics associated with leprosy.

Key Policies:
● MDT as the core strategy for the National Leprosy Control Program
● Procurement & supply of MDT Drugs, IEC & training materials by CDCS
● Health education
● Supervision & control of leprosy control activities

Strategies:
Prevention:
● Health education
● BCG vaccination
● Case finding
● Validate old registered cases
● Early referral of suspected leprosy patients
● Epidemiologic investigation

Treatment:
● Ambulatory
● Domiciliary chemotherapy through the use of MDT as embodied in RA 4073 which advocates home treatment.

**MDT TREATMENT REGIMEN:**

<table>
<thead>
<tr>
<th>Paucibacillary</th>
<th>Multibacillary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supervised Dose:</td>
<td>Supervised Dose:</td>
</tr>
<tr>
<td>Rifampicin 600mg</td>
<td>Rifampicin 600mg</td>
</tr>
<tr>
<td>Dapsone 100 mg</td>
<td>Lamprene 300mg</td>
</tr>
<tr>
<td>Taken once/month in the clinic</td>
<td>Taken once/month in the clinic</td>
</tr>
<tr>
<td>Dapsone 100mg</td>
<td>Lamprene 50mg</td>
</tr>
<tr>
<td>Self-administered</td>
<td>Self-administered dose</td>
</tr>
<tr>
<td>Taken OD, daily at home</td>
<td>Taken OD, daily at home</td>
</tr>
</tbody>
</table>

● Leprosy patients must be taught ways to prevent secondary injury caused by burns & rough sharp objects
● Emphasize importance of sustained therapy, correct dosage, effects of drugs & the need for medical check-up from time to time
● Provide mental & emotional support to the families of leprosy patients
● Refer patients as needed.

Rehabilitation:
o Imbibe patient’s participation in occupational activities
Family & community health (PD 304)
Non-segregation of leprosy patients
Counseling & guidance

● **LOCALLY-ENDEMIC DISEASE PREVENTION & CONTROL**

1. MALARIA CONTROL PROGRAM

Malaria is a vector-borne disease caused by female *Anopheles mosquito* causing sx such as fever, sweating, intermittent chills, anemia & spleenomegaly

2 Major Strategies of the Program

1: Vector Control

1

Created by Niña E. Tubio
Chemically treated mosquito nets
Larva-eating fish
Environmental clean-up of stagnant water
Anti-mosquito soap
  - Chemoprophylaxis- chloroquine 1-2 weeks before entering an area then continuous until 4-6 weeks after leaving the area

2: Detection & Early Treatment of Cases
  - Early Recognition, Prevention & Control of Malaria epidemics
    - Identification of a patient with malaria as soon as he is examined. This may be done thru:
      - Clinical
        - Signs & Sx
        - History of visit to & endemic area
      - Microscopic
        - Mass blood smear exam

In the event that an imminent epidemic occurs, the ff should be done:
  - Mass blood smear collection
  - Immediate confirmation & follow-up of cases
  - Insecticide-treatment of mosquito nets

2. SCHISTOSOMIASIS, H-FEVER, FILARIASIS CONTROL PROGRAMS

<table>
<thead>
<tr>
<th>SCHISTOSOMIASIS CONTROL PROGRAM</th>
<th>H-FEVER (DENGUE)</th>
<th>FILARIASIS CONTROL PROGRAM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Schistosomiasis- A parasitic infection caused by blood flukes inhabiting the veins of their vertebral victims transmitted thru skin penetration causing diarrhea, ascites, hepatosplenomegaly</td>
<td>Dengue- Acute febrile infection of sudden onset, caused by Aedes Aegypti, vector mosquito</td>
<td>&gt; A mosquito borne disease caused by a tissue nematode attacking the lymphatic system of humans thereby causing elephantiasis, lymphedema &amp; hydrocele</td>
</tr>
<tr>
<td>Activities:</td>
<td>Activities:</td>
<td>Activities:</td>
</tr>
<tr>
<td>&gt; Case Finding</td>
<td>&gt; Case Finding</td>
<td>&gt; Case Finding</td>
</tr>
<tr>
<td>&gt; Surveillance of the disease</td>
<td>&gt; Early reporting of any known case or outbreak</td>
<td>&gt; Early reporting of any known case of outbreak</td>
</tr>
<tr>
<td>&gt; Health education- encourage use of rubber boots for protection</td>
<td>&gt; Snail Eradication- use of moluscides</td>
<td></td>
</tr>
<tr>
<td>&gt; Environmental Sanitation-proper disposal of feces</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. PHILIPPINE CANCER CONTROL PROGRAM

AO 89-A s. 1990
Provided the Guidelines for the Philippine Cancer Control Program specifying its program policy, components, implementing guidelines & timetable.

6 Pillars:
- Public Information & Health Education
- Cancer Prevention & Early Detection
In Cancer Nursing, the aim of management is to relieve physical, mental & spiritual distress. Vital Task of the nurse: To help the patient maintain his dignity & integrity. Cancer care is multidisciplinary.

Who are to be prioritized for health supervision?

- Newly diagnosed cases
- Post-op cases/discharge
- Indigent cases needing continuity of hospital care
- Terminal cases

2. SMOKING CONTROL PROGRAM

Health hazards of Smoking:
- Lung Cancer
- Cardiovascular diseases
- COPD
- Cancer of other body organs

Program Objective: To decrease the prevalence of smoking-related diseases & subsequent premature deaths

Program Components:
- Information and Education on Campaign & Social Mobilization
- Policy Development & Legislation
- Training of Counselors in Smoking Cessation Clinics for Specialty Hospitals
- Resource Management & Monitoring

Strategies:
- National Anti-Smoking Campaign
- World No Tobacco Day
- National No Smoking Month
- Yosi Kadiri Campaign

3. RENAL DISEASE

In “23 in ’93”
- Preventive Cardiology & Nephrology
- Enhance public awareness through health education regarding healthy lifestyles
- Improve access to basic health services

“Health for More in ’94”
- “Buwan ng Buhay na Bato”
- Requires urinalysis of ALL children entering grade 1 so as to detect childhood kidney infections w/ may lead to renal failure.
- Encourage adult Filipino to undergo urinalysis once a year.

4. CATARACT

National Focus: Cataracts Screening Week at DOH Centers
- OPLAN: Sagip-Mata  > Eye surgery for cataract & squint operations for cross-eyed children

NUTRITION & ADEQUATE FOOD SUPPLY

Goal:
- Reduce M&M related to nutritional deficiencies
- The improvement of nutritional status, productivity & quality of life of the population thru adoption of desirable dietary practices & healthy lifestyle.

Coverage: Protein Energy Malnutrition, Vit. A deficiency, Fe deficiency anemia, iodine deficiency disorder

 Philippine Food & Nutrition Programs

1 Created by Niña E. Tubio
Directed to the provision of nutrition services to the DOH’s identified priority vulnerable groups:
Infants, pre-schoolers, schoolers, women of child bearing age (also included are the pregnant & lactating mothers) & the elderly.

Objectives:
To decrease the morbidity & mortality rates secondary to Avitaminosis & other nutritional deficiencies among the population mostly composed of infants & children.

1. MALNUTRITION REHABILITATION PROGRAM

<table>
<thead>
<tr>
<th>Targeted Food Task Force Assistance Program</th>
<th>Nutrition Rehabilitation Ward</th>
<th>Akbayan sa Kalusugan (ASK Project)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provision of food rations of bulgur wheat &amp; green peas</td>
<td>Every hospital must have a Nurse ward, where an adequately trained nutritionist were assigned (RA 422)</td>
<td>Aimed to provide rice &amp; corn soya blend supplemented with local foods.</td>
</tr>
<tr>
<td>Target population: Pre-schoolers Pregnant women Lactating mothers</td>
<td>Target pop: 6 mos - 2 years Moderately &amp; severely underweight Pre-schoolers not served by the DSWD and DA in Regions 2,8,9,10,11,12</td>
<td></td>
</tr>
</tbody>
</table>

2. MICRONUTRIENT SUPPLEMENTATION PROGRAM

<table>
<thead>
<tr>
<th>“23 in ’93 Fortified Vitamin Rice”</th>
<th>“Health for More in ’94”</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Buwan ng Kabataan, Pag-asa ng Bayan’ National Focus: National Micronutrient Day or “Araw ng Sangkap Pinoy”</td>
<td></td>
</tr>
</tbody>
</table>

-A free enrichment program aimed to prevent deficiencies in vitamin A (blindness); iron (anemia); iodine (goiter, mental retardation & delayed development) (1 cavan of rice + fistful processed, binilid enriched with essential micronutrients)

-Aimed to distribute vitamin A supplements, iodized oil for & seedlings of plants rich in Fe & other minerals.

3. FOOD FORTIFICATION PROGRAM

Fortification is the addition of a micronutrient deficient in the diet to a commonly & widely consumed food or seasoning. It involves:

- Incorporation of Monosodium Glutamate (MSG) with Vit A to reduce clinical signs of Xerophthalmia
- The use of FIDEL salt in lieu with the National Salt Iodization Program

4. NUTRITION SURVEILLANCE SYSTEM (Operation Timbang)

- A system of keeping close watch on the state of nutrition & the causes of malnutrition w/n a locality, w/ involves periodic collection of data & analysis & dissemination of analyzed information.

Tools utilized are Anthropometric measurements:

Weight for Age:

Created by Niña E. Tubio
Measures degree & presence of wasting or stunting

**Height for Age:**
Measures the presence of stunting
< 90% of standard ▪ stunting or past chronic malnutrition

**Weight for Height:**
Determines the presence of muscle wasting:

- Ideal body wt.: 135
- Body mass index (BMI) = \( \frac{wt \text{ in kgs}}{Ht \text{ in meters}} \)
- If BMI is > 27.2 in men or 26.9 in women there is the need for wt. reduction

**Skin Fold Measurement:**
Indicates amount of body fat with the use of fat-caliper
Sites: triceps, biceps, subscapular, suprailiac

**MUAC:**
Estimates lean body mass or skeletal muscle reserves

**A. PROTEIN ENERGY MALNUTRITION:**

1. **MARASMUS**
- Child lacks food rich in CHON & energy
- Usually the child is < 1 year old when malnutrition starts:
  - Very thin, no fat, muscle wasting - Prominent ribs
  - Very poor wt gain - Loose & wrinkled skin
  - Enlarged abdomen - Anxious, always hungry
  - *“Old Man’s Face”*

**Tx:** Food high in protein & energy content
- frequency of feeding
- variety of food

2. **KWASHIORKOR**
- Disease of older children when the next baby is born.
  - Usually when the child is 1-3 y/o
  - Very thin, fails to grow - Swollen legs, feet, arms & hands
  - Light colored, weak hair - Doesn’t want to eat
  - \textbf{Moon-shaped}, Unhappy face - Dark spots on skin
  - Enlarged abdomen - Skin sores & skin is peeling
  - Muscle wasting - Apathetic

**Treatment For Both:**
1. Food only
2. CHON
3. Increase frequency of feeding
4. Increase variety of food preparation

**B. IRON DEFIENCY ANEMIA**

- Not enough hemoglobin in the RBC because of lack of Fe
- Causes: Low intake of Fe-rich foods especially the more absorbable iron from foods of animal origin

Sources: Liver, internal organs, meat (pork and chicken) blood, fish & shellfish leafy vegetables alugbati, kangkong, saluyot, petchay, kamote tops, mustard (mustasa), dried beans, kadyos, monggo, abitsuelas

1 Created by Niña E. Tubio
Supplementation: FeSO4 iron supplement- Drink fruit juice to enhance Fe absorption

C. VITAMIN A DEFICIENCY:

Consequences:
1. Blindness - Night blindness d/t Rhodopsin (visual purple)
2. Nutritional blindness - D/t destruction of cell of the cornea

Causes:
- Low intake of Vitamin A rich food
- Low intake of protein
- Illnesses like measles, diarrhea

Sources:
- Breast milk, animal sources, whole milk, eggs, liver, meat
- Yellow/orange fruits (papaya, mango)
- Plant sources yellow/orange vegetables (carrots & squash)
- Green leafy vegetables (malunggay, kangkong), Vit. A capsule

D. IODINE DEFICIENCY DISORDER:

- Abnormalities d/t low iodine intake. Abnormalities range from mild such as goiter, to serious as stillbirth, congenital abnormalities, growth & mental retardation & physical and motor abnormalities

Consequences:
- Fetus: Abortion or miscarriages
- Congenital abnormalities, stillbirths

Causes:
- Goitrogens & other environmental factors
- Low intake of Iodine rich foods or low content of iodine in food.

Supplementation:

• SUPPLY & USE OF ESSENTIAL DRUGS

Essential drugs are medicinal preparations necessary to fill the basic health needs of the population.

National Drug Formulary contains the list of essential drugs

<table>
<thead>
<tr>
<th>Generics Act of 1988 R.A. # 6675</th>
<th>Dangerous Drugs Act R.A. 6425</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Formally proclaims the state of promoting the use of generic terminology in the importation, manufacture, distribution, marketing, promotion &amp; advertising, labeling, prescribing &amp; dispensing of drugs.”</td>
<td>“The safe administration &amp; transportation of prohibited drugs is punishable by law.”</td>
</tr>
<tr>
<td>“Reinforces the NDP with regards to the assurance of the high-quality &amp; rational drug use.”</td>
<td>2 Types of Drugs:</td>
</tr>
<tr>
<td></td>
<td>Prohibited Regulated</td>
</tr>
<tr>
<td></td>
<td>LSD Benzodiazepines</td>
</tr>
<tr>
<td></td>
<td>Eucaine Barbiturates</td>
</tr>
<tr>
<td></td>
<td>Cocaine/ codeine</td>
</tr>
<tr>
<td></td>
<td>Opiates</td>
</tr>
</tbody>
</table>

• ENVIRONMENTAL SANITATION

Environmental Sanitation

Is defined as the study of all factors in man’s physical environment, w/c may exercise a deleterious effect on his health, well-being and survival.
Goal:
To eradicate & control environmental factors in dse transmission through the provision of basic services & facilities to all households.

1. Water Supply Sanitation Program

3 Types of Approved Water Supply Facilities

<table>
<thead>
<tr>
<th>Level 1</th>
<th>Level II</th>
<th>Level III</th>
</tr>
</thead>
<tbody>
<tr>
<td>Point Source</td>
<td>Communal Faucet System/ Stand Posts</td>
<td>Waterworks System/ Individual House Connections</td>
</tr>
<tr>
<td>A protected well of a developed sprung with an outlet but w/o a distribution system for rural areas where houses are thinly scattered.</td>
<td>A system composed of a source, a reservoir, a piped distribution network &amp; communal faucets, located at not more than 25 meters from the farthest house in rural areas where houses are clustered densely.</td>
<td>A system with a source, a reservoir, a piped distributor network &amp; household taps that is suited for densely populated urban areas.</td>
</tr>
</tbody>
</table>

Water must pass the National Standards for Drinking Water set by the DOH.

2. Proper Excreta & Sewage Disposal System

3 Types of Approved Toilet Facilities

<table>
<thead>
<tr>
<th>Level 1</th>
<th>Level 2</th>
<th>Level 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-water carriage toilet facility:</td>
<td>On site toilet facilities of the water carriage type with water sealed &amp; flushed type with septic vault/tank disposal facilities.</td>
<td>Water carriage types of toilet facilities connected to septic tanks &amp; /or to sewerage system to treatment plant.</td>
</tr>
<tr>
<td>Pit Latrines</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reed Odorless Earth Closet</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bored-Hole</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Compost</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ventilated improved pit</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Toilets requiring small amount of water to wash waste into receiving space</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-Pour flush, Aqua Privies</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Rural Areas- “blind drainage” type of wastewater collection & disposal facilities shall be emphasized until such time that sewer facilities & off-site treatment facilities are available.

3. Proper Solid Waste Management

- Refers to satisfactory methods of storage, collection & final disposal of solid wastes.

2 Components:

a. Garbage – those with tendency to decay & give off foul odor

b. Rubbish – broken glass, bottles, papers

2 Ways Of Excreta Disposal

<table>
<thead>
<tr>
<th>Household</th>
<th>Community</th>
</tr>
</thead>
</table>

Created by Niña E. Tubio
4. **Food Sanitation Program**

**Policies:**
- Food establishment are subject to inspection (approved all food sources containers & transport vehicles)
- Comply with sanitary permit requirement
- Comply with updated health certificates for food handlers, helpers, cooks
- All ambulant vendors must submit a health certificate to determine presence of intestinal parasite & bacterial infection.

**3 Points of Contamination**
- Place of production processing & source of supply
- Transportation and storage
- Retail & distribution points

5. **Hospital Waste Management**

**Goal:**
To prevent the risk of contraction contracting nosocomial infection from type disposal of infectious, pathological & other wastes from hospital

6. **Programs related to health-risk minimization secondary to environmental pollution**

These Include The Following:
- Anti-smoke Belching campaign and Air Pollution Campaign
- Zero Solid Waste Management
- Toxic, chemical and Hazardous Waste Management
- Red tide Control and Monitoring
- Integrated Pest Management and Sustainable Agriculture
- Pasig River Rehabilitation Management

7. **Education of prevailing health problems**

Accepted activity at all levels of public health used as a means of improving the health of the people through techniques w/c may influence people’s thought motivation, judgment & action.

**3 Aspects of Health Education:**
- Information- provision of knowledge
- Communication- exchange of information
- Education- change in knowledge, attitudes & skills

Sequence of Steps in Health Education
- Creating awareness
- Creating motivation
- Decision making action

**HIV/ STI PREVENTION & CONTROL**
Operational Strategies:
● Promotion of health/ health education
● Disease detection
● Treatment program
● Contact tracing
● Clinical services

Program Components:
● Case-finding
● Case management
● Training
● Monitoring
● Reporting system
● Operations research

MENTAL HEALTH
● A state of well-being where a person can realize his or her own abilities, to cope with the normal stresses of life & work productively
● The emotional adjustment the person achieve in which he can live with reasonable comfort, functioning, acceptably in the community where he/she lives
● Involves the promotion of a healthy state of mind among the whole population through
● Developing positive outlook in life
● Strengthening coping mechanisms

Vulnerable group to the development of Mental Illness:
● Women
● Street children
● Victims of torture or violence
● Internal refugees
● Victims of armed conflicts
● Victims of natural & man-made disasters

Components of Mental Health Program:
A. Stress
B. Drugs and Alcohol Abuse Rehabilitation
C. Treatment and Rehabilitation of Mentally-ill Patients
D. Special Project for Vulnerable Groups

Stresses in the environment of children such as times of disasters & natural calamities, disintegration of the values, structure & functions of the family & urbanization, migration, drugs & physical & sexual abuse & poverty have direct effects on physical & mental health.