

SCHOOL OF SCIENCE AND TECHNOLOGY

COMMUNITY HEALTH NURSING

BSN 4615



BANGLADESH OPEN UNIVERSITY

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Published by:

Publishing, Printing and Distribution Division
Bangladesh Open University, Gazipur-1705

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Bangladesh Open University

July 2005

Computer Composed and DTP Layout by:

Md. Jakir Hossin

Cover Designed by:

Cover Graphics:

Printed by:

ISBN 984-34-4017-X

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Unit 1: Review of Community Health Services in Bangladesh

Lesson 1: Historical Development and Organizational Structure

1.1. Learning Objectives



After completion of this lesson you will be able to -

- to know the history of health care development
- to know the stages of development of community health services and
- to know the changes in Bangladesh.



Introduction

How medicine is developed? We know, medicine is as old as human being exists. By the waves of time, it passes many phases and many stages. Here, we can remember those major changes, which made history of medicine remarkable.

A. Ancient or Primitive Medicine

India, China (Tibet), Egypt and Greece were still considered as the birthplaces of medicine.

The *Ayurveda* and *Siddha* were famous and practiced in India for many hundred years. *Ayurveda* originated from *Ayu* (Life) and *Veda* (Science). *Siddha* also arose from success (healing).

Chinese medicine was known as *yang-yin*. *Yang* means the masculine (or positive power) and *yin* means feminine (or negative power). Chinese people thought that disease is an outcome of this two. Chinese were the pioneers of immunizations and this primitive method is still practicing worldwide as *acupuncture*.

The Misr (Egypt) also owned some magic power immortality that produces the very miraculous *Mummy*, the techniques of which is still unknown. The Egyptians, first time in history, classified doctors in branches, such as eye-doctors hand-doctors or tooth-doctors.

Mesopotamian people (Iraq) were also contributed a lot to medical sciences. The oldest written prescription was found in Iraq 2100 year B.C. The first book of medicine, known as “Code of Hamurabi” was also the great contribution of the Mesopotamia.

Greek medicine is the origin of present allopathic system. A great philosopher and doctor Aesculapius had 2 daughters: Hygiea and Panacea. Those two daughters had shown us the modern trend of healing (curative medicine from Panacea) and protection (preventive medicine from Hygiea). Greek doctor Hippocrates is considered as the father of medicine till date. He created 72-volume work of medicine: “Corpus Hippocratium”. Epidemiology was also started by his great enthusiasm.

The Middle ages (500 -1500 AD) was considered as **dark period** because of the prejudice of the Europeans. Nowadays, it is very strange to think even that to see someone’s body was considered as sin by the Western people for about thousand years. They also declared it as immoral. European people rarely bathed till fourteenth century so diseases occurred very frequently in Europe.

In contrast, Muslim world was flourished with varieties of curative and preventive methods, such as *Unani* and *Hakimi* system. Great scientists like Ibn Sina (980-1037; also known as Avicenna) and Abu Bakr (865-925) is still honoured as the great of the greatest physicians all over the world. Ibn Sina’s 21-volume “Canon of Medicine” is still considered as root of modern medicine. Abu Baker first invented papillary reaction to light. The greatest contributions of Arabs were classification of curative medicine in drug, alcohol, syrup and sugar: combinedly known as “Elixir of life”. This period (800-1300 AD) is also known as **golden age**. Cairo’s Al Mansur Hospital considered as first hospital, which had many departments and distinctive wards before 1000 AD.

B. Scientific Stage

Started from the late fifteenth century, Europe entered into new dimensions of medicine. *Fracastorius* recognized how syphilis transmitted by sex; *Andreas Vasalias* dissected the human body first time; *Ambroise Pare* did the first surgery and *Thomas Sydenham* branching this science in clear clinical distinctions. The process took a full-turn by discovery of blood circulation by *Harvey* and invention of microscope by *Leeuwenhook* (1670). Introduction of vaccine by *Dr. Jenner* against small-pox (1796) was the apex of this magical advancement.

Due to lot of epidemics by cholera, leprosy, small pox and plague, enormous number of deaths occurred all over the world in that time. It moved the scientists to “Sanitary Awakening” and “Germ Theory”. The triad of disease (Agent Host Environment) established after invention of the presence of bacteria by *Louis Pasteur* and *Robert Kock*, who showed that anthrax is caused by a bacteria. So on the process, microbes, coccus and bacillus were identified and preventive medicine took place after 2000 years of death of Hygia.

C. Modern Medicine

This can be described as 3-D theory: disease, doctor, drug - which lead the allopathic medicine to a pick of popularity. Simultaneously, the social and preventive care also enhanced. The concepts were changed one after one, such as -

- *Disease control phase (1880-1920)*: This phase emphasized on personal knowledge about sanitary legislation and sanitary reforms, that is water supply, sewage disposal etc.
- *Health promotional phase (1920-1960)*: At the beginning of 20th century, this new concept of health promotion emphasized state's responsibility over mass population.
- *Social engineering phase (1960-1980)*: Many acute problems, such as cancer, Cerebro Vascular Disease (CVD), alcoholism was immersed in this phase and the concept of "risk factor" established. It introduced social and technical aspects into medicine. Behavior as a factor for maintenance of good health also introduced in this phase.
- *Health for all phase (1981-2000)*: In this phase, scientists declared that only 10-20 percent people could achieve the modern health facility. So the health services should step forward to every door's at achievable cost.

The last one is commonly know as Primary Health Care (PHC) or Health for All (HFA).

Evolution in Bangladesh

The British landed in this subcontinent in 1608 and occupied the crown by the royal family in 1859. However, little was done for public health by the British.

Deshbandhu Chittoranjon Das was the first, who proposed "Health Circle Scheme" for undivided India in 1927. During the Second World War, the British established a health development committee in 1943, headed by sir *Joseph Bhore*. This "Bhore Committee" put their recommendation in 1946 that still considered as the base of public health in India. District health systems were made upon their suggestions before partition.

In 1949, the of Government established Rural Health Centre (RHC) in each Thana, with 3 sub centres. Some municipalities set their own medical service providers too. In 1950, the provincial's services established and in 1958 the health directorate started working amalgamating preventive and curative systems under the same umbrella. Director General of Health Services (DGHS) came into action in 1980. Family planning services

Review of Community Health Services in Bangladesh

introduced in 1962 as a project, which later became very strongly a directorate, though it is a sub-sub components of health.

Presently, under DGHS, there are six divisional Directors, 64 civil surgeons, 460 Upozila Health and Family Planning Officers and nine MOs in each Upazila. Under each Upozila Health Complex, there are Sanitary Inspector, Health Inspector, Assistant Health Inspector, Health Assistant, FWV, FWA and supporting staff.

Primary Health Care also trained a huge number of VHV (Village Health Volunteer) but due to lack of political nourishment, the PHC program not strengthened though declared as intensified.



1.2. Exercise

1.2.1. Multiple choice questions

Tick (✓) the correct answers

1. What country is the pioneer of acupuncture?
 - a. India
 - b. Nepal
 - c. Eygpt
 - d. China.
2. Modern medicine can be described as
 - a. Disease, decay, death
 - b. Disease, diagnosis, drug
 - c. Disease, doctor, drug
 - d. Diagnosis, decay, death.
3. Health circle scheme was proposed by
 - a. Chondichoron Das
 - b. Desbhandw Chittoranjon Das
 - c. Morali Kkartick Das
 - d. Itemonto Mokhargi Das

1.2.2. Short questions

1. Discuss the historical development of medicine.
2. Describe briefly the different phases of modern medicine.

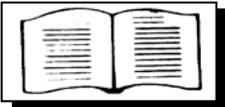
Lesson 2: Concepts of Well Being and Health Promotion

2.1. Learning Objectives



After completion of this lesson you will be able to -

- understand changing concepts of health
- explain concept of positive health, determinates of health, ecology and responsibility of health and
- promotional concepts of community health.



Introduction

Commonly, over the world, people do mean health as ‘absence of disease’. Some people considered health as ‘being at peace with the self, the community, good and cosmos’. Though health is the prime concern of the basic needs, but in United Nations charter, it was forgotten till 1945. However, it included later and the concept of health is continuously changing.

Following are some of the major curves of the **changing health concept** that should be remembered.

A. Biomedical Concept

The traditional idea of ‘absence of disease’ has changed by ‘Germ Theory’ at the early of 20th century. It referred the human body as a ‘machine’ and disease was considered as a consequence of the breakdown of that machinery. The doctors and allied professionals’ task would be repairing the machine.

B. Ecological Concept

As biomedical concept was primly concerned with the body only, so the society and the circumstances were overlooked. This gaps stroked health scientist’s to ecological concept that denotes, equilibrium between man and his environment.

C. Psycho-social Concept

Doctors, psychosocialits and psychiatrists directed the researchers that health was neither a biomedical phenomenon nor a ecological concept only, rather it is a combination of social, psychological, cultural, economic al and political imbalances.

D. Holistic Concepts

Holistic concept amalgamates all three previous idea, concept and phenomenon. It described health as: ‘sound man in a sound body, in a sound family, within a peaceful environment’.

E. Health for All Concepts

Finally, the UN took the responsibly to define health without confusion. It described “Health is a complete physical, mental and social well being and not merely and absence of disease or infirmity - so, each citizen can lead an economically productive life”. The main responsibility of leadership was taken by the World Health Organization (WHO) to ensures health throughout the world with following philosophy -

Health is a complete physical, mental and social well being and not merely and absence of disease or infirmity - so, each citizen can lead an economically productive life.

- Health is a fundamental right
- Health is intersectoral
- Health is integral part of development
- Health is the essence of productive life
- Health involves individual state of responsibility
- Health is world-wide social goal
- Health is central to the concept of quality of life.

Positive Health

Positive health means the perfect functioning of the body and mind. It conceptualizes health biologically, psychologically and socially - which leads to quality of life.

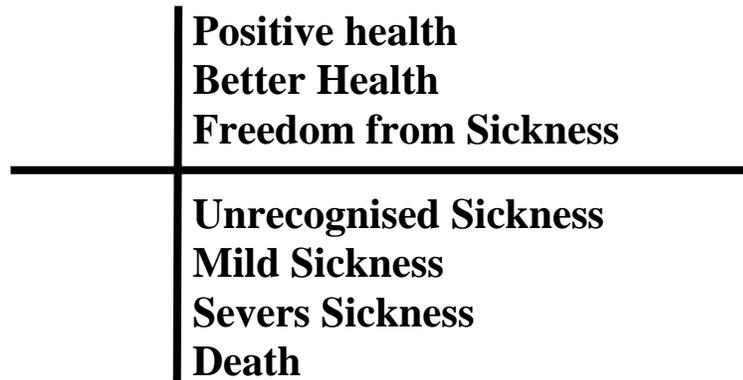


Fig. 1: Showing the Health Sickness Spectrum.

Concept of well-being

It comprises of the following aspects-

- i. Standard of living
- ii. Level of living
- iii. Quality of life.

All three have different measurements and values in different state or country, depending upon the total quality measurement (TQM) scale. One should remember that we are still a least-developed country, those who are trying for developing all aspects of lively hood, including quality of life.

Determinants of Health

There are many factors, which can describe our status of health, such as-

- i. Heredity (age-down factors)
- ii. Environment (surroundings of life)
- iii. Life-style (the way we prefer to live)
- iv. Socio-economic condition (economic status that social class)
- v. Health and family welfare services (either by the government or by any health service organization)
- vi. Other factors.

Ecology of Health

Ecology is defined as the science of mutual relationship between living organism and their environment.

Responsibility of Health

Health is a total outcome of physical, mental and social well being, that interrelated from person to the world. So, the responsibilities are as follows:

- i. Individual responsibility
- ii. Community responsibility
- iii. State responsibility and
- iv. International responsibility.

Indicators of Health

Indicators are the scale to measure of health status or situation. For this, various points can be considered, those commonly known as variables. There are many type of indicators like, morbidity indicators, mortality indicators, health care indicators, health service utilization indicators etc.

Indicators are used to measure the status of health and well being to assess the condition of a area, locality or country. Global indicators of health are known as health statistics or parameters. It is also considered as a development sign of a country.



2.2. Exercise

2.2.1. Multiple choice questions

Tick (✓) the correct answer

1. How many concepts of health exists?
 - a. Three
 - b. Four
 - c. Five
 - d. One.

2. Which is NOT a philosophy of health?
 - a. Health is intersectoral
 - b. Health is in center of quality of life
 - c. Health is not a part of development
 - d. Health is a global goal of the society.

3. Positive health means
 - a. Freedom from sickness
 - b. Unrecognized sickness
 - c. Seven sickness
 - d. Perfect functioning of the body and mind.

2.2.2. Short questions

1. Describe briefly different health concept.
2. What are determinants of health?
3. What is health? What are indicators of health?

Lesson 3: Epidemiology, Surveillance and Monitoring of Health Services

3.1. Learning Objectives



On completion of this lesson you will be able to -

- define and describe epidemiology
- define, technique and explain implication of surveillance
- define and describe the technique of monitoring.



Epidemiology

Epidemiology is the study of the distribution and determinants of health related states or events in specified population of the application of this study to the control of health problems.

By applying the methods and procedure of Epidemiology we can identify the cause(s) of an event/disease and remove the cause(s) that are responsible for disease or enhance the cause(s) that are responsible for health.

Epidemiology is the study of causality and uses comparison as a method to come to some conclusion regarding causality. For example, if we want to know the cause of an outbreak of a disease in a population, our procedure will be :

1. Study the characteristics of those who suffered in the epidemic and compare these characteristics with the characteristics of those who did not suffer that is study of age, sex, socio-economic status including education, residential type, topography and geography of residence or professional area habits and time or season of the beginning of the epidemic, exposure to any other characteristic or factor etc. among those who suffered and among those who did not. The frequency of these characteristics among these two groups will be estimated, examined, analyzed and any characteristic or factor or exposure to a factor that is only seen in those who suffered and not seen among who suffered but not so commonly among those who did not suffer will indicate that characteristic or factor may be the cause of the outbreak or diseases.

Argumentatively it is easier to understand the above but in practice, it is not so easy to comprehend. For example in order to be sure that our assumption about the identity of a cause is valid we have to satisfy some pre-conditions. some of which are as follows:

Review of Community Health Services in Bangladesh

Epidemiology teaches techniques of studying and comparing characteristics of two groups of people to find the cause of health and diseases.

2. We can not just pick up any one or discard any one from among those who are to be compared according to our own will in order to ensure that any one of them can be similar to any other among them :
3. A difference between these two groups must be find out which may necessitate testing of blood, urine, stool, sputum, saliva, tissue for biochemical or microbial evidence. A cause may be found as unique feature present in only those who suffered and absent in those who did not become ill.

This brings us to another paradigm. In order to demonstrate that factor is a cause of a disease where the following conditions need to be met.

1. The cause must occur or exist before the effect, that is, the cause of a factor must be present before the causes occurs, not after.
2. Diseases occurs the causal factor must above present.
3. Causal factors of disease must be present.
4. If the causal factor can be qualified measure.

A comparison is made between affected and non-affected people to see the difference between them.

The question is how can we come to conclusion regarding causality. There are three ways to study this and one epidemiological calculation to establish it. There are also many rather complex statistical calculate techniques which this chapter does not have scope to deal with however.

To be sure of causality we must do a prospective or a retrospective study.

A factor is the cause of an effect that can be tested in two ways. The two techniques are known as prospective study and retrospective study. In prospective study a group of people who have been exposed to a suspected cause and another similar group in respect to the former group but not exposed to that cause are followed to see how many in the exposed groups come down with the disease non-exposed group. Fox example, if smoking is suspected to be cause of cancer, then a certain number of smokers and equal number of nonsmokers but similar in all other respects may be followed up for 10 or 20 years to see how many in the smokers group and how many in the non-smoker group may develop cancer. If there are twice as many cancer cases among smokers than the non smokers then smoking may be suspected as a cause of cancer. This ratio is called relative risk (RR). In calculate term which may be written as :

$$RR = \frac{\text{Rate of disease among exposed}}{\text{Rate of disease among non exposed}}$$

In the retrospective study technique, the study begins with already disease and who are other wise similar. For example, we start with cancer patients and people and see how many of them were long time smokers (since long time exposure to smoking causes cancer). If we find that the history of

smoking is more common (at least twice as common) among cancer patients than non cancer patients then we assume that smoking may cause cancer. This ratio is called odds ratio (OR).

Relative risk or odds ratio is a ratio of the presence of a suspected cause in a group of diseased people and non-diseased people which established causality.

What happens for example if we find a group of people with an unknown disease and we suspect a factor. "A" or whenever there is no such disease there is no "A" at several places and at different times. We may suspect that "A" might cause the disease but we cannot be sure unless we do a prospective or a retrospective study. This last type of study is called a cross sectional or ad-hoc study.

Surveillance

Surveillance is a technique of continuous watchfulness on the dynamics of an event that is disease. Diseases surveillance is conducted to change in the rate prevalence or incidence of a diseases so that timely action may be taken to control it .

Surveillance means continuous watch on the number of cases of diseased people.

Surveillance procedure depends on reporting system which must be timely, complete, understandable and actionable. If no action can be taken against a disease or if the action is not cost-effective then we do not conduct surveillance for that disease.

Surveillance may be routine or sentinel. Routine surveillance may be conducted in the rate of occurrence of disease. So, not much information needs to be collected in routine surveillance. Sentinel surveillance is conducted more about a disease. More experienced people are involved in sentinel surveillance. Since it is costly after required information is collected sentinel surveillance is given up.

There are two type of surveillance: routine and sentinel. Routine surveillance only records the number of cases and sentinel surveillance provides more data, such as, causes of a disease it outbreak.

In Bangladesh routine surveillance is conducted in two ways. Weekly Epidemiological Reporting comes from the Health Assistants (H.A.). It include six disease for the whole country. These are: pneumonia, diarrhea, dysentery, poliomyeliti, tetanus and measles. Three diseases in addition are reportable from endemic areas. These are: malaria, kala-azar and filariasis. Any outbreak is also reported by H.A. The other channel of routine reporting is the monthly disease Profile that is based on disease that are seen in static health centers such as, Thana Health Complex.

Monitoring

Monitoring is a management tool used by supervisors and managers to observe how subordinate are performing to watch for . Any deviation can then be corrected.

Review of Community Health Services in Bangladesh

Monitoring is a planned process. It can be undertaken in several ways. There can be a pre-fixed check list that the supervisor can use when he/she is going to monitor the subordinate(s).

There are 6 disease that must be reported by H.A. in Bangladesh. These are pneumonia, diarrhoea, dysentery, poliomyelitis, tetanus and measles.

Monitor measures how many outputs were produced for example, by functionary e.g. how many health education session were planned by a staff and how many were actually conducted. If there is a wide gap, what the cause of that gap and how can that gap be removed, so that there is no deviation from the target etc.

Monitoring can also be done through scrutinizing performance reports and occasional surveys. An observation check list is better suited to assess the quality of a performance. Performance report gives idea about the quantity of outputs. So both of these tools are useful for monitoring. Periodic review meeting is yet another avenue to assess both quality and quantity of performance. This type of meeting has another advantage. Problems can be discussed and often solutions are find out and experienced may be shared to help out colleagues.

Monitoring is a tool to identify problems in performance and remove them.

Different types of monitoring formats may be used for assessing activities in different sectors or different programmes in Thana Health Complex (THC) or a hospital, for example for monitoring nursing services in the Oral Rehydration Therapy Corner (ORT corner) or on Health Education different qualitative and quantitative indicators may be used. Some of them are suggested below:

Monitoring may be done through check list, observation, survey, scrutinization of performance reports and review meetings.

- Percentage of beds that have been fixed clearly
- Percentage of eligible temperature charts that have been updated
- Percentage of daily patient status forms that have been filled up regularly
- Cleanliness of the toilets
- Percentage of deliveries conducted
- Number of health education sessions conducted in an ORT corner
- Number of drug registers maintained properly and
- Promptness with which patients were received or discharged.



3.2. Exercise

3.2.1. Multiple choice questions

Tick (✓) the correct answers

1. The study of the distribution and causes of disease is known as
 - a. Demography
 - b. Geography
 - c. Biology
 - d. Epidemiology.

2. The purpose of surveillance is to
 - a. Control of disease
 - b. Spread of disease
 - c. Growth of microorganism
 - d. Cause of disease.

3.2.2. Short and broad questions

1. What is epideimiology?
2. Discuss the process for identification of the cause of an outbreak of a disease.
3. What is surveillance and what do you mean by monitoring?

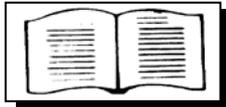
Lesson 4: National Health Policy

4.1. Learning Objectives



After completion of this lesson you will be able to -

- understand policy
- understand national health policy
- health policy in Bangladesh.



Introduction

Health is universally accepted basic human right. So it deserves utmost importance for any population. For this, most of the nations developed national health policy, which guide the 'total health system' that includes caring services, professional developments, allied services and related supports. We should keep this idea in mind clearly. Health-need is a big demand, but the resources are limited everywhere. If policy doesn't exist, wastage of health resources occurs maximum.

Policies are general statements based on human aspirations, set of values, commitments, assessment of current situation and an image of a desired future situation.

What is Policy?

Policies are general statements based on human aspirations, set of values, commitments, assessment of current situation and an image of a desired future situation.

What is national health policy?

National health policy is an expression of goals for improving the health situation, the priorities among these goals, and the main directions for attaining them by a country.

A national health policy is an expression of goals for improving the health situation, the priorities among these goals, and the main directions for attaining them by a country.

Each country has to develop its health policy aimed at defined goals for improving its people's health in the light of its own problems. Particularly those circumstances that have direct impact on social and economic situation.

A recent landmark in this process of health policy development was the worldwide adoption of the goal of HFA-2000. A further landmark was the Alma-Ata declaration calling all governments to develop and implement primary health care strategies to attain the target of Health for All by 2000 AD.

Health Policy Formulation

Adoption of health policy is vital issue for national development because formulation of health plans and their translation into action is a cohesive and continuous manner. Various stages and steps are required for health policy development, such as -

1. Set of terms of reference (TOR)
2. Situation analysis
3. Formulation of strategy
4. Program designing
5. Introduce master plan of action (POA)
6. Implementation of POA
7. Monitoring
8. Analysis results
9. Revision and evaluation of the objective.

What we have done in Bangladesh?

Till now, Bangladesh has no health policy, though many attempts were taken. A draft Health Policy is still waiting for approval but not yet finalized by the concern authorities. We hope, Government of Bangladesh will approve and implement national health policy soon.



4.2. Exercise

4.2.1. Short questions

1. What is policy? What is national health policy?
2. What are the stages of health policy development?

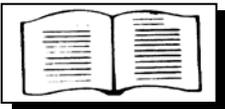
Lesson 5: Primary Role of Nurses in Community Health

5.1. Learning Objectives



After completion of this lesson you will be able to -

- describe community dynamics
- discuss the dynamics of community health
- describe responsibility of nurses in processing the health of the community and
- list of mobilize community for its own health.



Community Dynamics

Community is a group of people living in a particular area sharing some commonness relating to their living. Community is a subset of a society having similar life patterns, attitudes, aptitudes, beliefs, practices and behaviors within some individual limited diversity. It is usual that on important issues a community unites decision and subscribe to a common idea. Since the members of a community has a similar level of understanding and outlook they try to have act together, they reinforce each in their perceptions.

A community is a social group determined by geographical boundaries has common values of interests.

Community Health

Individual health is intricately related with the health of the community. Communicable and contagious disease spread from persons through air, water, food, habitat, insects, ones animals which they share in a common environment. Illness from one individual, if it is microbial in nature, may move quickly to others due the proximity that community members enjoy with each other like a larger family. Even psychological or social diseases can transmit from one member of a community to others.

Individual and community health are dependent on each other.

On the other hand, healthiness of a group of people in the community can also protect other members of that community. For example, if an immune individual is colonized by some microbe, they will be destroyed before other less protected members, get infected by that microbe.

A whole community may protect itself from illness if the majority of members of that community are protected.

Disease occurred often depends on individual or community behaviors, practices or rituals. On the other hand, depend on the beliefs, attitudes and customs of a community. Life style patterns are closely related to the causation of diseases. Diseases are always multi factorial in causation. Proximity to the cause of a disease and disease potential, that is disease causing agents depend on knowledge, attitude and behavior. More entrance of a disease causing agent in an individual does not cause

Disease depends on the life styles of people and a community.

occurrence of diseases. In general, therefore, to understand why people fall ill and one has to know their own life styles.

Responsibility of a Nurse Towards Understanding Community Health

To seek community diagnosis of a diseases community dynamics must be examined first. This is also necessary for radical prevention of disease.

To determine the cause of disease before taking radical steps to prevent that disease from occurring in a community a nurse has to understand the community s/he is serving individually, socially, psychologically and environmentally before s/he can influence the patient to her/him. This comes by only when s/he is gets to know the patients.

Responsibility to a Nurse towards Improving Community Health

A nurse may think that she is only to serve in a static facility, and has no responsibility towards the community. But there are two reasons why s/he should be interested in the health of all the people.

Improvement of an individual's health can be ensured only when community health has been ensured.

- Disease prevention can be effected only through a community approach. If prevention can be achieved, work load of the nurse can be reduced.
- If the community can be strengthened in protecting itself it will help those who are living in the community that is ones family. Thus the children of a nurse will also be protected from sickness if there is no disease in the community.

Why only for his/her personal benefit? The personal benefit should be an added advantage.

The best way of serving humanity through preservation of the physical health of an individual s/he can go on earning her/his living uninterruptedly.

Exercise

Read the following passages and answer the questions at the bottom

The rate of literacy in Bangladesh is very poor about 42%. People often lack of knowledge about health. Their social customs may be injurious to health. For examples there is a belief that child birth should be conducted in the dark corner of a room and there should be profuse smoking in the room to ward off and the evil spirit from spoiling the new born. Mothers think that the first milk in the breast is a dirty fluid like pus and is harmful to the child; so it should be discarded.



5.2. Exercise

5.2.1. Multiple choice questions

Tick (✓) the correct answers

1. The best way to approach them will be by approaching
 - a. Individually
 - b. The family as a group
 - c. The community leaders as a group
 - d. The family and the community leaders together.

2. The way to sustain your effort is to
 - a. Give health education/suggestion/advise
 - b. Form a support group or advocacy group
 - c. The above 2 steps
 - d. None of the above.

5.2.2. Short and board questions

1. What is community dynamics?
2. What are the responsibilities of a nurse to improve community health?

Unit 2: Primary Health Care

Lesson 1: Historical Development of Primary Health Care (PHC)

1.1. Learning Objectives



After completion of this lesson, you will be able to -

- understand background of Primary Health Care (PHC)
- describe basic of PHC.



Background

It was recognized in both developed and developing countries, that the expected health services were not being provided. As well as the services do not cover the demand of the society and the wide spectrum of the whole population. There are lack of services in some areas and unnecessary duplication in others.

The main social target of governments and WHO in the coming decades should be the attainment by all citizens of the world by the year 2000 at a level of health that will permit them to lead a socially and economically productive life.

A very high proportion of the population in developing countries, especially in rural areas, does not have ready access to health services. Simultaneously the health services favored only the privileged urban dwellers or elites. Although, there are no recognition to the common peoples the health is a fundamental human right. In contrast, there is denial of this right to millions of people who are caught in the vicious viscous cycle of poverty and ill health. There are marked differences in health status between people in different countries as well as between different groups in the same country. The cost of health care is rising without much improvement in their quality. In short, a growing dissatisfaction with the existing health services and a clear demand for better health care rise up. This situation ultimately turns the world to a new dimension of proposition that names Health For All (HFA), which synonymous to PHC.

The Basics of PHC

The state of new ideas and concepts, that is increasing importance given to social justice and equity, recognition of the role of community participation, changing ideas about the nature of health and development. The importance of political will called for a new approach to make medical services more effective.

Justified above background, the World Health Assembly resolved in May 1977, that "the main social target of governments and WHO in the

Primary Health Care

coming decades should be the attainment by all citizens of the world by the year 2000 at a level of health that will permit them to lead a socially and economically productive life".

This culminated in the international objective of Health for. All by the year 2000 as the health goal of all governments.

Health for all means that health is to be brought within every one in a given community.

Viewed in the long-term context, it simply means the realization of the WHO's objectives of attainment by all people of the highest possible level of health. What is of immediate relevance is the meaning that, as a maximum people in all countries should have at least such a level of health they are capable of working productively and of participating in the social life of the community in which they live.

Health for all means that health is to be brought within every one in a given community.

Health for all is a holistic concept attaching agriculture, industry, education, housing, communications, with medicine and public health.

It implies the removal of obstacles to health that will eliminate malnutrition, ignorance, contaminated water supply, unhygienic housing, etc., leads to continued progress in medicine and public health.

Health for all is a holistic concept attaching agriculture, industry, education, housing, communications, with medicine and public health.

The attainment of Health for all by 2000 AD is still considered as central issue and official target of WHO and its member countries. It symbolizes the determination of the countries of world to provide an acceptable level of health to all people.

Health for all has been described as a revolutionary concept and a historic movement in terms of its own evolutionary process.

The goal of PHC had re-targeted recently up to the year 2010 AD, which is know as MDG (Millennium Development Goal).

The New Approach of PHC

Primary health care is a new approach to health care, which integrates the community level's all factors required for improving the health status of the population. It consists of at least eight elements described as "essential health care components".

This presupposes services that are both simple and efficient with regard to cost, techniques, and organization, that are readily accessible to those

concerned, and that contribute to improving the living conditions of individuals, families and the community as a whole.

Primary health care is available to all people at the first level health care.

It is based on principles of equity, wider coverage, individual and community involvement and intersectoral cooperation. Viewed in these terms, primary health care is a radical departure of the conventional health care systems of the past. While it integrates primitive, preventive and curative services, it is also conceived as an integral part of the country's plan for socio economic development.

PHC was The Pathway for Health Policy Development

The Alma Ata Declaration has called on all governments to formulate national policies, strategies and plans of action to launch and sustain primary health care as part of a national health system. It is left to each country to innovate. According to its own circumstances to provide primary health care through a national health policy. This was followed by the formulation and adoption of the Global strategy for health for all by the 34th World Health Assembly in 1978. Primary health care received a good starting in many countries with the theme "Health for All by the year 2000 AD". It presents a challenge so formidable that its implications boggle the bravest minds. The challenge brings us face to face with the Declaration of Alma Ata.

Primary Health Care



1.2. Exercise

1.2.1. Multiple choice questions

Tick (✓) the correct answer

1. Primary health care is a new concept by
 - a. WHO
 - b. UNICEF
 - c. FAO
 - d. Alma Ata.

2. Health for all means
 - a. Health for the rich people
 - b. Health for the sick people
 - c. Health for the white people
 - d. Health for every body.

1.2.2. Short questions

- a. What is PHC? What is the background of it?
- b. What are basics of PHC?
- c. What is the new approach of PHC?

Lesson 2: Components and Principles of Primary Health Care

2.1. Learning Objectives



After completion of this lesson you will be able to -

- define primary health care (PHC)
- understand principles, components and levels of PHC and
- say about HFA by 2000 AD.



Definition

We already described the historical development of Primary Health Care, which is synonymous to Health For All by 2000 AD (HFA-2000). The declaration signed by all heads of states, in 1978, defining PHC as:

“Essential health care based on practical, scientifically sound and socially accepted methods and technology, made universally accessible to individuals and families in the community through their full participation and at a cost that the community and the country can afford to maintain at every stage of their development in the spirit of self-determination”.

Bangladesh is one of those countries, which signed in this declaration in 1978 at Alma Ata.

Principles of PHC

There are four basic principles of PHC. Those are -

1. Social equity (means need-based distribution, not equal division).
2. Community involvement (change the top-to-bottom policy to a mass integration).
3. Appropriate technology (use maximum available resources).
4. Multisectoral approach (involve all related fields those has direct and indirect relationship with health).

Components of PHC

The (eight) essential components of PHC are as follows :

Primary Health Care

1. Education and information about prevailing health problems and methods of preventing and controlling them.
2. Promotion of food supply for proper nutrition.
3. Adequate supply of safe water and basic sanitation.
4. Maternal and child health care.
5. Prevention and control of endemic diseases.
6. Immunization against infectious diseases.
7. Treatment of minor ailment and injuries.
8. Provision of essential drugs.

Levels of Health Care Services

Health care services should be organized in such a manner that fulfils the basic health need of the whole population of the country regardless of age, sex, cast, and religion economical status. For this, it should be cost-effective, properly managed and universally available. To ensure this goal, health services are divided in three levels: primary, secondary and tertiary.

A. Primary Level

This is the first level of contact between an individual and the health system. A majority of the health service needs of the community can be meet at this level.

In Bangladesh, Upozila Health Complex (UHC) and Union Sub-centers or Rural Health Centers constitute this level. It has two faces: center-based and domiciliary services.

B. Secondary Level

This level deals with comparatively more complicated health problems, which are beyond the capacity of primary level, i.e., UHC, and FWC (the second referral level). The district hospitals are considered in this level. The services of secondary level are mostly curative.

C. Tertiary Level

It deals with highly specialized care provided at regional (divisional) or central (capital) level. Medical college hospitals and specialized institutions, such as, NICVD, TB Hospital (Mohakhali), Dhaka Medical College Hospital and IPGMR comprise this level. This level provides maximum health care facility.

Inclusive of these three levels, the whole shape is like a pyramid, where the pick covers minimum number but maximum facilities and wider-base covers the majority but number of services are limited.



2.2. Exercise

2.2.1. Multiple choice questions

Tick (✓) the correct answer

1. Primary health care DOES NOT mean
 - a. Essential health care
 - b. Curative health care
 - c. Preventive health care
 - d. Luxurious health care.

2. How many principles of PHC exist
 - a. Three
 - b. Two
 - c. Four
 - d. One.

3. The component of PHC DOES NOT cover
 - a. Major operation
 - b. Safe water
 - c. Food supply promotion
 - d. Epidemic control.

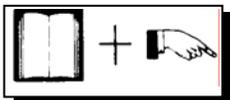
4. Secondary level of PHC in Bangladesh means
 - a. Upozila
 - b. Zila
 - c. Capital
 - d. Chittagong port city.

2.2.2. Short questions

1. What is primary health care? What are basic principles of PHC?
2. What are components of PHC?
3. Discuss the levels of health care services?

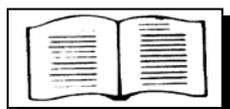
Lesson 3: Voluntary and International Health Agencies

3.1. Learning Objectives



After completion of this lesson you will be able to -

- say the names of some famous voluntary and international health agencies and
- say the activities of some popular voluntary and international health agencies.



Voluntary Health Agencies in Bangladesh

Bangladesh has a rich assortment of non-government health related agencies (NGOs). Although the distinction between voluntary agencies and non-government agencies is a debatable issue, in this lesson we will take them up together as similar entities. Activities of some of them have been reviewed below.

A. Rural based organizations

Voluntary Health Services Society (VHSS)

Voluntary Health Services Society (VHSS) was established in 1978 by a group of non-government organization (NGOs) working in the areas of health and family planning. VHSS's purpose is to assist NGO's in Bangladesh to function more effectively in serving the people. VHSS does not implement any projects itself, or does not act as a donor.

The major programme areas in VHSS are

- 1 Facilitation of communication and coordination among NGO's, Government departments, donors and UN agencies.
- 2 Providing training and workshop facilities for workers in its member NGO's, non-member NGO's and government department.
- 3 Designing, development and distribution of health education materials.
- 4 Collection and distribution of publication on health and family planning
- 5 Publication of newsletters, booklets and journals etc.

- 6 Production of Dictionary of Health and Family Planning Agencies and Services, Catalogue of Health Education materials and Public Health Films.
- 7 Assistance to member agencies and other NGO's in programme evaluation, cooperating with local NGO's in developing project proposal and assisting NGO's to obtain Government approval and donor assistance for their projects.

BRAC

The Bangladesh Rural Advancement Committee (BRAC) is one of the leading NGO's in Bangladesh and largest in the world too. BRAC has been engaged in rural development activities for the last twenty-four years. BRAC started its activities in 1972 with relief and rehabilitation efforts for the war victims and later changed its focus to development activities. BRAC's development target focuses on the landless poor, e.g., those who must sell their manual labour for livelihood. The benefits of BRAC's programmes are often felt community-wide. Landless and marginal farmers, fishermen, artisans and women backing social and economic support were selected as target groups.

The major programs of BRAC are

- 1 Rural development
- 2 Education
- 3 Child survival and diseases control
- 4 Support services

Association for social Advancement (ASA)

ASA mainly works in the field of social welfare through group formation and provision of credit. It also works on enhancement and provision of family planning services, e.g. training of traditional birth attendants (TBAs), follow up their activities and provide health education through them.

Helen Keller International (HKI)

This is a foreign NGO based in Bangladesh. It provides technical assistance to the Institute of Public Health Nutrition (IPHN) and conducts regular nutrition surveillance and nutrition based activities in Bangladesh, specially on blindness caused due to vitamin A deficiency etc.

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Council for Promotion and Protection of Breast Feeding (CPPBF)

This is an organization, which was sponsored by the Institute of Public Health Nutrition. Now it has become an independent trusty of some scientist and NGO personnel. It works for converting hospitals in Bangladesh into baby friendly hospitals and in campaigns for promoting breast-feeding. It has six sub committees for research.

Gonoshasto Kendro (GK)

Gonoshastho Kendro started as a medical camp for treating injured freedom fighters. It is trying to build a health insurance scheme in its catchments areas. It has a pharmaceutical plant, a medical college and some income generating ventures. It also provides medical services during natural disasters.

ICDDR,B

Through MCH Extension Project International Centre for Diarrhoeal Disease Research, Bangladesh (ICDDR,B) gives technical support to the government. It is trying to test different organizational models in health care delivery system such as cluster service, emergency obstetric care, family welfare assistant based adjustable contraceptive, diarrhoeal diseases etc.

ICDDR,B has an urban programme undertaking surveys and providing technical assistance to the government.

Dhaka Urban Integrated Child Survival Project (DUICHP)

DUICHP works in urban slums through local leaders and volunteers in controlling diarrhoea, Acute respiratory infection) ARI and malnutrition. It has a strong health education programme, referral service and people representation in steering it.

Radda Bernen

Radda Bernen has a strong maternal and child health care programme (MCH) and curative service. It also provides static facility based health education and growth monitoring of under 5 children.

Red Crescent Society

The Red Crescent Society usually provides services through urban hospitals, e.g., Holy Family Hospital. It also provides services during

any natural calamity and disaster in rural areas as well. Red Crescent Society is famous for its blood collection service.

Sandhani

Sandhani is a voluntary organization of medical students, who collect blood and cornea from volunteers.

Bangladesh Institute of Research and Rehabilitation of Diabetes Endocrine and Metabolic Disorders (BIRDEM)

BIRDEM is better known as the diabetic hospital. In 1994-95 seven more organizations were opened in other districts independently (not bearing the name of BIRDEM). BIRDEM has more than 35 branches. BIRDEM conducts research, training including academic courses and services to diabetic patients.

There are many other NGOs most of which are related to family planning services. Most of them are funded by United States Agency for International Development (USAID).

International Agencies

Almost all the International Agencies, except ICDDR,B and Helen Keller International are actually funding agencies. Many of these are bilateral agencies e.g., British Overseas Development Agency (ODA), Japanese International Cooperation Agency (JICA), German Technical Agency (GTZ), Swedish International Development Agency (SIDA), Canadian International Development Agency (CIDA), Norwegian Development Agency (NORAD), The Netherlands Development Agency, USAID, European Union (EU), Danish International Development Agency (DANIDA), Organization of Petroleum Exporting Countries (OPEC), Korean Development Agency etc.

These agencies provide funds to the government directly or through the World Bank consortium of these bilateral agencies. Some of these agencies also provide financial support to NGOs directly. When given bilaterally most of these funds are grants; but when given through the World Bank usually they are loans.

Activities of United Nations (UN) Agencies

UNICEF

The acceleration of the Expanded Programme on Immunization to reach universal coverage by 1990 and sustained coverage at a level of

Primary Health Care

85 percent. UNICEF provides the priority of the whole UNICEF programme of cooperation, training, supply of vacancies, cold chain and vaccination equipment and a communication strategy are the main inputs.

Control of diarrhoeal diseases and acute respiratory tract infections is being pursued through health interventions as well as simultaneous water and environment sanitation activities and intensive health education and hygiene promotion. Key activities are the establishment of oral rehydration therapy (ORT) corners in upazila health complexes, production of oral rehydration salts (ORT) and proper case management of acute respiratory tract infections.

The nutritional blindness prevention project focuses, through training of staff, on improving distribution of vitamin-A capsules to children. It also promoting nutrition education and home gardening for production of vitamin-A rich foods.

The community food and nutrition project aims to develop a nutrition education package, grows monitoring and promotion activities and family food production schemes. A priority activity is the campaign for the promotion and protection of breast feeding, co-sponsored by WHO, which is trying to educate services personnel and the public about the essential benefits of breast feeding for both mothers and babies and the dangers of inappropriate foods.

UNDP

United Nations Development Programme (UNDP) is the coordinating agency of all of UN agencies. It funds multiple sectors on development plans, the health sector it funds primary health care intensification. It usually funds through WHO.

WHO

The World Health Organization (WHO) is the United Nations technical agency for assisting governments throughout the world in health development. Together with UNICEF and non-government organizations, WHO developed the Global Strategy of Health for all by the year 2000 through Primary Health Care (HFA/PHC). WHO assists the Government of Bangladesh to improve the health status of the population's through development, implementation and evaluation of health, water, sanitation and family planning programmes. The Government/WHO coordinating committee, which meets regularly, is a major vehicle to foster dialogue and understanding. This committee is a model that Government is using with other donors. WHO works

closely with UNICEF, UNDP, other UN agencies, bilateral donors and NGO's in strengthening health development?

WHO Assists Government in a Number of Ways

- 1 Provision of technical assistance by long term and short term expatriate and national experts who work with Government counterparts to assist in strengthening management capability, personal, services and logistics and supplies related to health care. The overall goals of this technical assistance are to assist with strengthening programmes and to train national counterparts who will sustain these activities.
- 2 Fellowship support to provide qualified to candidates with opportunities for long and short-term study abroad in subjects relevant to the health development needs of the country.
- 3 In-country training with local counterparts as trainers to develop their training expertise to sustain the programme as well as to improve the knowledge and skill of health personnel at all levels. Training involves clinical and technical skill enhancement as well as managerial development.
- 4 Contractual service agreements through which local organizations and individuals can be assisted to implement specific projects or activities.
- 5 Provision of supplies, equipment, teaching materials vehicles etc. to facilitate implementation of specific projects or activities.

UNFPA

United Nations Family Planning Agency is mainly funds family planning activities in Bangladesh.

Most of the developmental activities including training, logistics and information, education and communication materials development in the family planning sector are undertaken by UNFPA



3.2. Exercise

3.2.1. Multiple choice questions

Tick (✓) the correct answers

1. VHSS was established in
 - a. 1976
 - b. 1977
 - c. 1978
 - d. 1979.

2. The programs of BRAC is
 - a. Rural development
 - b. Education
 - c. Supports services
 - d. All above.

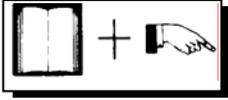
3. BIRDEM is better known as
 - a. Cancer hospital
 - b. Diabetic hospital
 - c. Cardiac hospital
 - d. Leprosy hospital.

3.2.2. Analytical questions

1. What are major programs of VHSS?
2. What are activities of UN agencies in health sector?
3. How do WHO assist government?

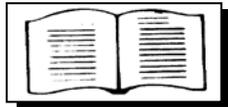
Lesson 4: Maintenance of Health Records

4.1. Learning Objectives



After completion of this lesson you will be able to -

- know the basic of health records and its components
- know the importance of health records.



Introduction

No work can be measured or assessed or rewarded, if it has no written record. Records mean data kept in such a documented manner, which can be used, measured, judged and quantified.

In Bangladesh, health services are not as bad as the record keeping system is. In contrast to the NGO services, government is much more poorer in record keeping. It is not only disgraceful but also demoralizing, when a real contribution is not counted due to lack of records only.

Health records are the written data, kept in the registrars in health facilities. Generally, it covers the following areas -

A. Demography

- Name
- Age
- Sex
- Religion
- Ethnicity
- Socio-economic status
- Literacy
- Vital events (birth, death and marriage)

B. Medical Data

- Health facilities
- Health providers
- Disease profile
- Disease pattern

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- Epidemical risks by disease
- Other risks factors.

C. Health Service Utilization

- Number of Hospital, clinic or health center
- Admission rate
- Discharge number
- Average duration and or stay in hospital
- Bed occupancy rate
- Pattern of illness by demographic factor.

D. Health Resources

- Number of health centers
- No. of bed
- No. of instruments
- No. of utensils
- No. of manpower (service provider)
- Amount of money (budget)
- Provision of resource and logistics.

The above categories are not all components of health record, but it gives you an idea of medical record keeping. Each country may have its own style of record keeping but we should remember that records are the “witness” of our “job”, so the importance lies on to put it as good as possible.

Bangladesh Health Records

In Bangladesh, our government provides many kind of registrar those can be noticed here, such as,

1. Birth Registrar
2. Death Registrar
3. Marriage Registrar
4. EPI Registrar
5. Eligible Couple Registrar etc.

Many NGOs and private organization also use different kind of registrar, which reflects many important health data. Professional medical personnel, such as, doctor, paramedic, nurse, TBA should remember that registrars are not important unless correct and valid data inserted. Records are only useful when inserted data are used for action.



4.2. Exercise

4.2.1. Multiple choice questions

Tick (✓) the correct answer

1. Health records are
 - a. Data
 - b. Service
 - c. Record
 - d. None of them.

2. Vital events mean
 - a. Birth, death, marriage
 - b. Marriage, death, growth
 - c. Growth, development, health
 - d. Records, data, register.

3. Record means
 - a. Data in registers
 - b. Numbers in the file
 - c. Printed book
 - d. Description of patient.

4.2.2. Short question

1. Which areas should include in health record?

Unit 3: Role of Nurse in Specific Social Health Programs

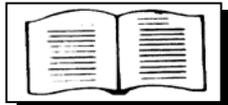
Lesson 1: Review of Major Health Problems in Bangladesh

1.1. Learning Objectives



After completion of this lesson you will be able to -

- identify the major health problems in bangladesh
- identify the causes of those health problems and
- learn techniques of mitigating it.



Major Health Problems of Bangladesh

In the light of the disease profile that we receive from the static health care facilities from domiciliary visits of Health Assistants and periodic surveys by different organizations, the following diseases, disabilities and problems may be identified as the major problems in Bangladesh.

Causes of Morbidity (General Population)

1. Diarrhoeal disease
2. Intestinal worms
3. Skin disease
4. Peptic ulcer
5. Acute respiratory tract infection
6. Anaemia
7. Deficiency diseases
8. Pyrexia of unknown origin
9. Eye disease
10. Injuries.

Causes of Morbidity (Women Population)

1. High risk pregnancy, abortions, haemorrhage and eclampsia
2. Vaginal infection
3. Vesico-vaginal fistula or urinary incontinence

Role of Nurse in Specific Social Health Programs

4. Cervical Cancer
5. Breast cancer.

Causes of Morbidity (Children)

1. Protein energy malnutrition (PEM)
2. Helminthiasis
3. Scabies and ring worm
4. Ear infection
5. Diarrhoea
6. Pneumonia
7. Cold
8. Coryza
9. Dental Disease
10. Injuries.

Causes of Mortality (General Population)

1. Heart disease
2. Pneumonia
3. Diarrhoea
4. Accident
5. Respiratory failure
6. Intestinal obstruction.

Causes of Mortality (Women Population)

1. Eclampsia
2. Post partum haemorrhage
3. Abortion
4. Tetanus
5. Ectopic Pregnancy.

Causes of Mortality (Children)

1. Pneumonia

2. Diarrhoea
3. Tetanus
4. Measles
5. Accident.

Causes of Health Problems

Health problems never arise due to a single factor. Socio-economic factors, including life style, are always associated with the development of disease.

The causes of morbidity and mortality in Bangladesh are related to the life style of its people and lack of knowledge.

Most of the diseases in Bangladesh are bacterial, viral and helminthic in nature. Diabetes mellitus, cancer, hypertension, cardiac diseases, hepatic and renal disease which are mostly organic in nature and not microbial are assuming importance but still are fewer in number in comparison to communicable disease and malnutrition.

People should be taught by all of those who are knowledgeable on healthy ways of living and eating.

Life style patterns bring people in Bangladesh closer to the microbes or helminthes. Lack of knowledge, poverty and superstition are the main causes of health problems in Bangladesh. Some examples may be cited here. In rural areas and urban slum people usually do not use safe water for all of their domestic purpose and defecate in open places (not in sanitary latrine). If the stool of any of them contains germs of diarrhoea and is washed into a nearby pond, ditch, stream or river and if the people use this water from immediate down stream then there is every chances of contract diarrhoea. Many other social habits e.g. spitting indiscriminately and not covering nose when sneezing etc. may cause ARI in young children. At least half of the morbidity among under -5 years of are children occurs from diarrhoea and ARI. Lack of knowledge about food values and healthy way of cooking and eating are responsible at least partly for malnutrition problems that our children and women, specially pregnant women, are suffering from.



1.2. Exercise

1.2.1. Short questions

1. What are causes of morbidity?
2. What are causes of mortality?

Lesson 2: Care of People with STD/AIDS

2.1. Learning Objectives



After completion of this lesson you will be able to -

- definition std and aids in Bangladesh
- describe the causes and prevention of STD and AIDS.



Sexually Transmitted Disease

STDs are sexually transmitted diseases and AIDS is acquired immunodeficiency syndrome. STDs are a group of diseases that are transmitted through sexual acts. Some of the most common STDs are gonorrhoea, syphilis and chancroid. AIDS should also be classified as a STD since its major transmission route is also sex.

According to a survey done in the skin and venereal disease department of medical colleges STDs or venereal disease are relatively common. A survey done among some high-risk individuals found STDs to be prevalent in 20% of garment factory workers and housemaids. Many housewives are also found to be infected with STDs. Among the STDs gonorrhoea is the most common followed by syphilis.

Gonorrhoea is a disease that is caused by Gram-negative diplococci named *Neisseria gonorrhoea*. Bacilli called *Treponema pallidum* cause syphilis. Another bacilli called *Haemophiles ducreyi* cause chancroid.

A healthy person, 5 to 10 days after sexual exposure to gonorrhoea patient may develop pain in the urethra (genital organ), exudation of profuse pus and developed fever. This may fade with time even if there is no treatment but there is every chance that there may be permanent damages from this e.g. fibrosis and narrowing in the urethra, which prevents clear voiding of urine. In female patients there may be retrograde infection of the fallopian tube, peritonitis and closure of the fallopian tube causing permanent sterility. In chronic cases all clinical feature at all. There is another type of urethritis, which occurs from non-venereal bacilli, e.g. staphylococci specially in old age. Some fungi can also cause urethritis. These must be differentiated from gonococci urethritis.

In the case of syphilis, which develops from 15 days to 90 days after exposure, there may be three stages of manifestation if untreated. In the first phase there may be a small singular boil like eruption, which heals after about a week. After two to three months there may be visible swelling of the regional lymph nodes, reappearance of clean ulcer at

the primary site of the disease which may be the genitalia, lips, tongue or even finger. This ulcer may heal gradually. After 2 to 30 years, the tertiary phase develops with involvement of any organ of the body including liver, bones, brain, eye etc. There appears an area of swelling and degeneration of the infected organs. This may end up in death if a vital organ is involved.

Chancroid mainly involves the lymph nodes of the groin. These lymph nodes are swollen burst open exuding pus.

So far 384 human immune-deficiency virus (HIV) infected people have been identified in Bangladesh among them, 46 have already developed AIDS. The infection due to HIV is increasing very fast in Bangladesh.

HIV is a virus belonging to a group of viruses. Although this called retrovirus. AIDS was indentified as a new disease among young homosexuals in the USA but its cause the HIV was indentified in 1983. Scientists now believe that HIV perhaps is a utant virus form a similar virus that infects monkeys. It is interesting to note that other retorviruses are also very common in primates and apes. Infection with HIV AIDS develops after several years about 10 to 15 years in the infected person. But the infected person can transmit the virus among others before he/she himself/herself comes down with the disease for a period of 10 to 15 years silently. This is the reason that HIV infection among healthy people occurs so quickly before we can understand this.

STD and AIDS: Epidemiology and Prevention

Gonorrhoea, Syphilis and chancroid are caused through sexual intercourse with an infected person. Since there are intermittent periods in gonorrhoea and syphilis of apparent healthiness especially inchroinc gonorrhoea in women these two diseases spread relatively during these healthy periods. Syphilis in addition can spread through blood or any other body fluid. So while taking or transfusing blood we must test a donor's blood for *Treponema pallidum*.

The best way to prevent the spread of STD is to refrain from indiscriminate sexual acts specially with strangers. Commercial sex workers (CSWs) are potent sources of these infections. Prompt treatment save an infected person from secondary sequelae and also shorten the period of communicability and transmission potentiality to others.

The birth of a baby through a birth canal infected with gonorrhoea may lodge the cocci into the babies' eyes and make it permanently blind. In

Role of Nurse in Specific Social Health Programs

There is no cure for AIDS. Using condoms during sex, avoiding use of infected blood or equipment and needles pregnancy and if infected with HIV should prevent it.

known cases an antibiotic ointment should be applied to the baby's eyes immediately after birth and continue it until the course is completed.

We must know that HIV does not transmit through hugging, dry kissing, hand shaking, sharing utensils, cloths toilets.

The birth of baby from a second or third stage syphilitic mother may cause congenital syphilis, such as saddle nose and cleft palate. If there is some doubt a woman who wants to conceive should be tested for STDs especially for syphilis and treated before conception.

While handling a patient we must wear gloves and gowns and disinfect them immediately after use.

Infection with HIV usually leads to AIDS. To date only a handful of people have avoided development of AIDS. In general HIV means AIDS and AIDS definitely means death. HIV can be transmitted through all those routes blood, sex, body fluid, and birth from an infected mother. But transmission potential is much higher in case of HIV than syphilis. For example, even infected instruments have been incriminated as tools of HIV transmission. Although blood has the highest potential for HIV transmission in practice due to the sheer number sexual relationships is the number one causes specially among homosexuals of HIV transmission. Next most common causes are needle prick specially among intravenous illicit drugs users. Although AIDS was common in the beginning and still is in the West among homosexual. In developing countries HIV was not found to discriminate among sexes. One of the unfortunate issues of these STDs especially AIDS is that their victims are almost exclusively young, active, bread earners. So AIDS is a devastating disease. Its management is expensive-almost US \$ 60,000 per year. Patients die within 6 months to 2 years in developing countries.

A person dead from AIDS should be buried by following some precautionary measures as soon as possible. Uninfected person should be counseled sympathetically.

Testing of blood for HIV before transfusion, use of condom during intercourse, disposable syringes and needle, avoidance of pregnancy if infected intercourse with faithful non infected partner handling of patients with utmost personal protection and prompt burial are the hallmarks of HIV prevention. HIV is not transmitted through mosquito, fly, hugging, and dry kissing, hand shaking, sharing of utensils cloths, toilets. No person should be prosecuted, persecuted or insulted socially because of his/her AIDS status. They cannot be even refused jobs.



2.2. Exercise

2.2.1. Multiple choice questions

Tick (✓) the correct answers

1. If you get a suspected HIV positive patient, what should you do as a nurse?
 - a) Avoid her
 - b) Counsel her
 - c) Inform the police.

2. What should be emphasized on during your counseling?
 - a) How Ms. X should lead rest of his/her life
 - b) Tell Ms. X that s/he may establish a sex well relationship with others
 - c) Since Ms. X is going to die any way s/he should not leave her "Jai-Namaz".

3. What should s/he tell Ms. X's relatives?
 - a) To avoid Ms. X
 - b) How to treat Ms. X
 - c) To criticise Ms. X.

2.2.2. Short questions

1. Define STD and AIDS.
2. What are causes of AIDS?
3. How AIDS can be prevented?

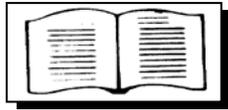
Lesson 3: Geriatric Care

3.1. Learning Objectives



After completion of this lesson you will be able to -

- know about the problems due to ageing process
- understand the problems due to long term illness and
- know about the care of the aged people.



Geriatric care means the care of the aged person. Geriatric age is scaled by 60 years above.

Ageing is a natural process. The ageing people are both a medical and social problem.

Problems due to ageing possess

- Senile cataract
- Glucoma
- Nerve deafness
- Bony change affecting mobility
- Failure of special senses
- Changes in mental outlook.

Problems associated with long term illness

- Diabetes mellitus
- Hypertension
- Degenerative changes of the heart and blood vessels (atherosclerosis, coronary heart disease, thrombosis)
- Disease of the locomotor system, e.g.
 - Rheumatoid arthritis
 - Gout
 - Osteoarthritis
 - Spondylitis of the spine etc.
- Cancer
 - Ca-Uterus

- Ca-Prostate
 - Ca-Breast
 - Ca-Lungs
 - Ca-Intestine etc.
- Respiratory System Chronic bronchitis asthma etc.
 - Genitourinary System Enlarged prostate, nocturia dysuriact.

Psychological Problems

Mental change lack of memory, rigidity in outlook.

Sexual adjustment Irritability jealousy.

Emotional disorders Social maladjustment, failure of adoption depression, suicidal tendency.

Care of the Aged People

Personal cleanliness must be maintained dress should be loose and comfortable. At least 8-10 hours regular sleep. Regular light exercise e.g., walking and gardening should be undertaken.

- Diet should be palatable and easily digestible and reduce quantity as earlier leafy vegetable and citrus fruits should be taken more and protein contain food should be taken adequately, e.g., meat fish etc. Water intake should be plenty.
- They should maintain their activities and take part in family duties.
- Regular medical check up should be carried out at short time interval.
- PHC nurse should provide health promotional and health educational support.
- PHC nurse should provide adequate services at secondary and tertiary level.
 - If needed, special service to be arranged
 - A few long stay geriatric beds may be help at these institutions.
- Family members and other relatives should share the burden of mental disability of the elderly.
- Community should look after their daily needs e.g., food shelter, nutrition and financial supports.
- Society can arrange sports, games and sight seeing programme for the elderly.

Role of Nurse in Specific Social Health Programs

- Social service department of the country should provide home care and day care centre.
- Long stay geriatric hospitals should be established.



3.2. Exercise

3.2.1. Short questions

1. What are the problems due to long-term illness?
2. How would you care of the aged people?

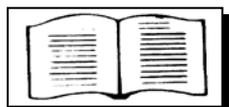
Lesson 4: Drug Abuse, De-addiction and Rehabilitation

4.1. Learning Objectives



After completion of this lesson you will be able to -

- definition of drug
- classification of drug
- symptoms of drug abuse
- de-addiction of drug
- rehabilitation.



Drug is defined as “any substance that, when take into the living organism may modify one or more of its function”.

Drug when used other than the recommended does.

To assess the drug abuse person, various methods are used. Surveys of drug abuse persons attending prisons and country hospitals etc.

Drug is defined as “any substance that, when take into the living organism may modify one or more of its function.

Easy availability of drug is a major cause of drug abuse. Cultural or religious attitude of a community markedly influences drug abuse. Peer pressure is generally considered to be an important factor in the initiation of drug abuse.

Drug abuse depends on the complex interaction of many factors concerning the drug, the individual and the environment.

Classification of Drugs

1. **Opiate type drugs-** Opium, derivatives of opium, e.g., morphine, heroin, codeine, and path dine.
2. **Sedative drugs-** Alcohol, sleeping pills e.g., barbiturates tranquilizers, e.g., diazepam.
3. **Stimulant drug-** Cocaine.
4. **Cannabis-** Known by various- ganja, bhang, charas, hashish, and marijuana.
5. **Volatile solvents/ inhalants-** Glue, kerosene, aerosols etc.
6. **Other drug-** Tobacco, betel, arcca, khat.

Symptoms of Drug Addiction

1. Loss of interest in sports and daily routine.
2. Loss of appetite and body weight.
3. Unsteady gait, clumps movements tremors.
4. Reddening and puffiness of eyes unclear vision.
5. Slurring of speech.
6. Fresh, numerous injection marks on body and blood stains on cloths.
7. Nausea, vomiting and body pain.
8. Drowsiness sleep less ness, lethargy and passivity.
9. Acute anxiety, depression, profuse sweating.
10. Changing mood, temper, and tantrums.
11. Depersonalization, emotional detachment.
12. Presence of needles, syringes and strange packets at home.

Addiction and Rehabilitation

1. Identification of drug addicts and their motivation for detoxification
2. Motivation
3. Detoxification with drawl syndrome can be managed effectively.
 1. Psychotherapy The usual methods are -
 - Individual psychotherapy
 - Group psychotherapy
 - Behavioral psychotherapy
 2. Health education - Educate the addicted people about health and social consequences of drug abuse. School health curriculum should include specific information about drug abuse and dependence.
3. Avoidance risky prescription.
4. Early detection of case.

Rehabilitation

- Planned rehabilitation and remobilization will prevent relapse.
- Proper attention and support from the family, friends and religious treacheries.
- Arrangement of proper recreation facilities to avoid monotony and frustration.
- Development of public policy-
 - Laws to prohibitory control manufacture transport, sale or use of drug.
 - Smuggling of drugs should be controlled.
 - Strict control of import.
 - Restriction to prescribe and dispense drugs.



4.2. Exercise

4.2.1. Short questions

1. Define drugs. Classify drugs with example.
2. What is drug abuse? What are symptoms of drug addiction?
3. How would you de-addict and rehabilitate of a drug addict?

Unit 4: Major National Health Programmes

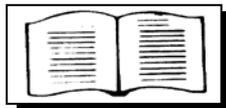
Lesson 1: Control of Non Communicable Disease-I

1.1. Learning Objectives



After completion of this lesson you will be able to -

- describe commonly cancers in bangladesh
- describe the pathogenesis of cancer.



Cancer

Cancer is an uncontrolled growth of primitive cells in the body, which may grow in any organ or tissue and get transferred to another part of the body and create pressure symptoms and cause death.

Cancer is a chronic, non-communicable disease that has a long, insidious incubation period and develops years after exposure to that causative organism. In the pathogenesis of cancer there are some exciting or initiating factors, some enhancing and maintenance factors. All of which must play their role duly before cancer can develop. In this pathogenesis the role of body's immune system is also very important. Immune system is a watchdog inside the body, which destroys foreign bodies including microbes and pathogens that are not normal to the body. In cancer patients the immune systems cannot recognize cancer cells as foreign to the body. It is postulated that one of body's intrauterine cells some how gets out of control of body's balancing mechanism and starts dividing fast like growing cells in intrauterine life. Soon it loose its initial appearance, size, shape and three dimensional configuration and becomes less specific and specialized and looks like more early aged (intrauterine) cells when they cannot be differentiated, whether they are dermal, epidermal, epithelial, muscle or nerve cells.

The most common neoplasms in Bangladesh are that of the lungs cervix, breast, throat, prostate and rectum.

These uncontrolled growing of cells become larger and larger masses and creates pressure on adjacent organs or tissues. Some of the cells may get detached and lodge in other parts of the body where they start dividing again and form masses causing pressure symptoms and also distorting the shape and thus function of the organs that they lodge in or in adjacent organs or tissues. If these cancers distort or put pressure on the brain, lung, liver, kidney, intestinal system function of those organs may become abnormal as a result of which the patient may die. They can also erode blood vessel and thus cause bleeding in the system, in the lung, liver brain eye. These masses of cells may become infected and may give rise to fungated appearance even with pus and bleeding.

Major National Health Programmes

Examples of some common cancers in Bangladesh (epithelial cell neoplasm) are -

- Lung cancer
- Cervical cancer (in women)
- Prostate cancer (in male)
- Throat cancer etc.

Cancer of the brain, eye and bone that are called "sarcomas" are less common. Two of the sarcomas are that of the breast and leukemia. The later occurs in the white blood cells and is rather common specially in children, although it may occur in old age as well the cause and manifestations are different.

Manifestations of Cancer

There are several factor exposures to which for a long time or repeatedly initiate cancer. That is why cancer is rather common in old age.

Since cancer takes a long time to develop its manifestations are rather slow; gaining momentum gradually with time. The common feature is fever. Loss of weight and emaciation of the body and anaemia, which are general. Specific symptoms are based on the system or organ that is involved. For example cough, chest pain and hemoptyses are common and faster to develop if the lungs are affected. Loss of speech, sight, limb movement and hearing may occur with headache if the brain is affected. Change in the bowel habit constipation alternating with mucoid diarrhoea, loss of appetite, intestinal distension may occur if the intestinal canal is affected. Another very common feature of cancer is collection o fluid in and around the land that is affected. Fragility of the bone may be the first symptom of a neoplasm in the bone. In leukaemia anaemia is a fast and permanent sign with all its consequences.

Cause of Cancer

In neoplasm fever, weight fever, loss, emaciation etc. are the most common general feature.

One of the common causes of cancer is genetic and familial. If a father or a mother dies of cancer her children have a high change of death from cancer. It is true in case of brothers and sisters. This familial or genetic linkage is ill understood.

Cancer of the lungs and the throat are most commonly seen among those who have prologned history of smoking and or chewing of betel leaf and nut especially if it is with tobacco leaf. Chewing of other irritants or bolus of irritants kept in the buccal cavity for long also cause neoplasm of he throat and buccal cavity. Consumption is associated with neoplasm of the lungs, bone and kidney. Sun (ultraviolet) ray may cause skin cancer if exposure is repeated and

prolonged. Exposure to coal, tar, soot, etc may also give rise to skin cancer.

Ulcer of the skin, cervix and stomach may get converted into neoplasm if they are not healed or treated. Dirtiness and repeated childbirth may also be the cause of cervical cancer. On the other hand breast cancer is common among the women who do not bear children.

The most common causes of cancer are genetic, radiation, chemical, smoking, chewing of betel leaf and nut etc. in Bangladesh.

Some dyes and chemicals can also cause neoplasm of the skin, urinary bladder and the kidneys,

Parasites, such as *Schist* some may cause cancer in the urinary bladder.

Virus, such as HIV and other retroviruses may cause sarcoma and leukemia. Leukemia is also caused by radiation. It may be genetic as well.

Prevention of Cancer

People should be asked to give up the bad habit of smoking, chewing of betel nut and women should keep the sex organs clean to prevent cancer.

All the above causes should be avoided specially in old age. In case of women after 35 year of age they should learn and do periodic self-breast examination for any nodules. They should also cheek their cervical cells checked through Papanicolau pathological/microscopic test.

Any change in the colour, smoothness, thickness of skin or any ulcer that is not healing and change in the bowel habit or voided, unexplained bleeding from any opening of the body should be seen suspiciously and a physician should be consulted.

Food, which is rich in ash and fibre such as vegetables and fruits, are known to prevent intestinal cancer.



1.2. Exercise

1.2.1. Multiple choice questions

Tick (✓) the correct answer

1. Cancer is a
 - a. Chronic disease
 - b. Non-communicable disease
 - c. Acute disease
 - d. Both (a) and (b).

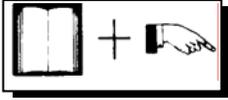
2. The most common cancer in Bangladesh is
 - a. Leeng cancer
 - b. Cervical cancer
 - c. Prostate cancer
 - d. All above.

1.2.2. Short and broad questions

1. What could the patient in hour view be suffering from?
2. What would you ask a patient to diagnose if s/he is probably a patient of throat cancer?
3. What could be the reasons of throat cancer?
4. If you examine the oral cavity of this patient what do you expect to see?
5. What would you advise this patient?
6. What would you tell his/her relative and well-wisher?

Lesson 2: Control of Non-Communicable Disease-II

2.1. Learning Objectives



After completion of this lesson you will be able to -

- define and describe about diabetes
- list the causes of diabetes
- prepare a plan to manage a case of diabetes and
- counsel a diabetic patient.



Diabetes: Pathogenesis and Clinical Feature

Diabetes is manifested by frequent urge of micturition. It may be of two types diabetes insipidus, which is not a pathological condition, and diabetes mellitus, which occurs due to a pathological condition in the beta cells of islets of Langerhans, the cells in the pancreas that produce insulin. Insulin controls the absorption of glucose from the intestine into the blood and then its further assimilation. The alpha cells in the pancreas produce glucagon, which is anti-insulin in functioning. It therefore controls the action of insulin so that too much of sugar is not removed from blood. An imbalance in the production of insulin and glucagon, too. Much or too low amount of any one of them can cause either too much sugar in the blood (when the amount of insulin is too little or too much of glucagon) or very little amount of sugar in the blood (when there is too much insulin in the blood or too little of glucagon). The former condition is called hyperglycaemia or diabetes mellitus and the latter is called hypoglycaemia.

The hallmark of diabetes is increased frequency of micturition specially at night and weakness.

Diabetes mellitus develops usually after 40 or 45 years of age. There is another form of diabetes called juvenile diabetes that develops in younger age. There may be congenital pathology in the pancreas, which may also cause congenital diabetes. Juvenile diabetes and old age onset diabetes have some pathological differences. In young age onset or congenital diabetes, the beta cells of islets of Langerhans of the pancreas are damaged, distorted or destroyed, some times fibrosed or only support cells or stromal cells are seen in the absence of insulin producing cells. So the amount of insulin produced is grossly inadequate. In late onset diabetes the amount of insulin produced is enough but either the molecule are not normal or the blood vessels are so thickened that insulin cannot function normally. The cardinal manifestation of diabetes mellitus is increased frequency of micturition, which is especially recognizable at night. Besides this patients also feel weakness, increased thirst and loose weight. Urine may be little hazy or turbid and when left in open place may attract ants. Patients may find white patches in the cloths and ants in cloths. In

Major National Health Programmes

extreme case patient's breath may smell fruit-like. This condition is called diabetic ketosis. In this situation urine shows the presence of ketone bodies and becomes highly acidic. The patient may lose consciousness. Infection in the skin and in the kidney occurs leading to renal failure. There may be problems in the eyes also and sight may be lost.

Causes of Diabetes Mellitus

Congenital absence, destruction or inadequacy of the beta cells of islets of Langerhans of the pancreas is one cause. This may occur due to autoimmune disease mediated through infection with Coxsackie B virus, a virus that belongs to the groups of enter viruses that poliomyelitis virus also belongs to.

Diabetic patients should be told that obesity and too much eating is bad and if parents have the disease their children should be cautious.

Hypertension, which is caused due to thickening of blood vessel, is also associated with diabetes. It is probable that the same pathology of the blood vessel is the cause of both the maladies.

Diabetes may be hereditary. If both parents are diabetic there is 50% change that their children will be diabetic too.

Diabetes is common in overweight people, especially women and in sedentary people.

Managing a Cases of Diabetes

Diabetes is a chronic disease. If someone kept it within control patient should not suffer from any illness. The question first of all is to diagnose a case. By using Benedict's reagent (5c.c.) in a test tube and pouring eight drops of urine with a dropper in it and heating it at the top level of the reagent until boiling for some time. In established case the colour changes to green and then yellow, orange and brick red with the severity of the diseases. In occult or borderline cases a test known as Glucose Tolerance Test is done. Blood is first drawn in empty stomach after an overnight and 75 gram of glucose is given to the patient. Blood is again drawn after 1.5 hours and 2 hours. The level of sugar in the blood in empty stomach and after a meal is estimated. Any reading above 7.5-m mol/deciliter is thought to be indicative of diabetes.

Patients should be asked to control diet and check and control weight. Mild Exercise is useful.

A diabetes patient should have a controlled diet. Most of his/her food should come from vegetables, physical activity such as walking and other mild exercise to keep weight in control is very important. He/she should refrain from sweets.



2.2. Exercise

2.2.1. Multiple choice questions

Tick (✓) the correct answer

1. Diabetes is common
 - a. Among old age
 - b. Among women
 - c. Among obese
 - d. Among mongoloids.

2. Diabetes is
 - a. A chronic disease
 - b. A controllable disease
 - c. A directly killing disease
 - d. A crippling disease.

3. Diabetes patients should
 - a. Be able to test their urine by themselves
 - b. Control their food
 - c. Undertake exercise
 - d. All of them.

4. Diabetes is caused by
 - a. Familial relationship
 - b. Heredity
 - c. Infection
 - d. Accident
 - e. Poisoning.

2.2.2. Short and broad questions

1. What is diabetes? Discuss its pathogenesis and clinical feature.
2. What are causes of diabetes?
3. How would you manage diabetes?

Lesson 3: Control of Communicable Diseases-I

3.1. Learning Objectives



After completion of this lesson you will be able to -

- say about diarrhoeal diseases
- control of diarrhoeal diseases
- explains the measures of prevention and
- describe the transmission and management of diarrhoeal diseases.



Diarrhoea

Diarrhoea defines as three or more loose motions in 24 hours or the quantity being clearly in excess of normal time void.

Many types of organisms cause it. Diarrhoea is a disease, which has many manifestations. The following are the types of diarrhoeas and their common causes in Bangladesh.

Diarrhoea is a syndrome, which is caused by many different types of microbes and helminths.

- Viral Diarrhoea is commonly caused by rotavirus. Some enteroviruses such as polio, coxsackie viruses, adeno virus, measles virus, corona virus may also cause diarrhoea. The stool is yellowish and without much odour. HIV can also cause diarrhoea.
- Bacterial diarrhoea is the most common among diarrhoea. Common occurrence is due to *Eschaerechia coli* and *vibrio cholerae*. The proportion is sometimes revised depending on the season. Shigella, salmonella, campylobacter, staphylococci, klebsiella, clostridia may also cause bacterial diarrhoea in order of prevalence. Stool produced by E.coli is mucoid, blackish or yellowish and offensive in smell. Vibrio cholerae stool is like rice water, profuse and not very odourous. Shigella stool is blood stained (altered) and blackish. Salmonella stool may be very offensive and pea soup in colour. Diarrhoeal stool caused by other organism's offensive.
- Parasite related diarrhoea may be frothy, very mucoid and smell offensive. These are caused by entamoeba histolytica, Giardia intestinalis. Helminths, such as ascaris lumricoides, tape worm, fasciolopsis many also cause diarrhoea. Another very uncommon diarrhoea may occur from plasmodium falciparum malaria.

Management of diarrhoea will vary according to its cause.

Prevention and Control

Diarrhoea organisms are transmitted through contaminated food, drink, flies, finger, utensils, clothes etc (except HIV). So the first step towards prevention of diarrhoea should be to change the life style so that people

The best way to prevent diarrhoea is a latrine and tube well sunk in a safe place at homestead.

use safe water for all of their domestic purposes. For example, safe drinking water is not enough to protect one from diarrhoea. What if one drinks safe water but bathes in a ditch or stream that is polluted with feces of human and animal. Also even use of safe water for all domestic purpose is not enough. If people defecate indiscriminately then flies or wind may carry organisms from that stool to foods if they are kept open. Use of sanitary latrine by all the family members not for only defecation but also for important. People have harmful beliefs that the stool of young children is harmless. This is not true. If infants cannot use toilets stool should be disposed of immediately into a toilet. Surveys have shown that in rural area women do not use a sanitary latrine at night and avoid it at times for urination, which makes the presence of a latrine useless.

How safe is the Safe Water?

In order to be safe tube well must be sunk 50 feet or 15 meters away from a source of contamination such as a ditch pond, pool, river, latrine, garbage pit etc. In order to term water safe the World Health Organization (WHO) standard is that there will be no coliform organism in 10ml of water source. Safe water does not mean that it will be not only free from microbes or parasites but from injurious chemicals also. Arsenic, cadmium, lead, mercury, asbestos and copper may contaminate water and threaten life. A recent phenomenon in Bangladesh is wide-spread contamination of tube well water with dangerous levels of arsenic especially in Nawabgonj, Rajshahi, Jessore, Khulna, Satkhira's bordering belts and Noakhali, Narayanganj etc.

Each and every member of the family should use a sanitary latrine that is, a water seal latrine. Safe water should be used for all domestic purpose.

Diarrhoea commonly prevails in Bangladesh in either post monsoon period when water level is receding and microbes are concentrated in water that is September to November or in the dry season before monsoon when underground water level is low and water cannot be lifted through hand a pump that is in March to May. In these periods people tend to use surface water where microbes become concentrated. If no safe water is available then surface water should be used after boiling for at least 20 minutes or after decontamination with halogen water purifying tablets or bleaching powder, which contains chlorine.

Unfortunately since chlorine is a volatile gas it evaporates from the tablet or the powder. The rule of the thumb is that if the tablets are older than 6 months after production they are useless. If bleaching powder has less than 30% chlorine then it is useless. A process purifies water with halogen tablet or bleaching powder is given below.

Management of Diarrhoea Cases

Diarrhoea can be fatal although in general diarrhoea is a self-limiting disease. Diarrhoea kills by producing dehydration. Due to vomiting and frequent purging body loose fluid and there is in equilibrium in the intracellular and extra cellular fluid level and osmotic pressure. Due to in equilibrium in the body electrolytes such as sodium, potassium, magnesium, chlorine, bicarbonate, the heart and other muscles cannot function normally so there is drop in blood pressure and loss of nerve functioning. Death ensues as a consequence. This occurs more among younger the inflicted child. In infants dehydration may be identified from the following signs-

- Sinking of the anterior fontanel (if the child is less than 6 months of age)
- Sinking and glossiness of the eyes
- Dryness of the eyes and the tongue
- Looseness of the skin (it does not go back to its position after it is pinched, pulled and released)
- Reduction in of urine.

In order to prevent dehydration in diarrhoea patient it is best to start feeding saline water. Pouring one sachet of oral saline produced may make this commercial that in half a litre of water. Pouring one fistful of sugar or jaggery (molasses) may make it at home, one pinch of common/table salt. If the other alternative is to put 8 tea spoons of sugar, jaggery or molasses, half a tea spoon of salt and a quarter tea spoon of sodium bicarbonate or edible soda in half a litre of pure water. While using fingers the hands must be washed with soap first. It must be fed as often as the purging is and to the equal in quantity. Once made, this saline should be used within 6 hours otherwise discarded and remade. If there is no improvement in diarrhoea or fever in 5 days the patient should be taken to a doctor or a health facility.

When dehydration has developed it is safer to referee the patient to a hospital for intravenous saline as soon as possible.

It is advisable that mothers should continue normal feeding of their children including breast-feeding as well as other fluids such as coconut water, tea, and juice. If the diarrhoea is severe after the episode the child should be given a dose of vitamin 'A' if eligible. It has been found that added vitamin A which is depleted in severe diarrhoea and measles, reduces the risk of death from diarrhoea and post diarrhoea malnutrition or even from diarrhoea that occurs subsequent to measles.

The Government of Bangladesh has a project called control of Diarrhoea Diseases. This project has several activities, some of which are mentioned below -

With the onset of diarrhoea we must start feeding the patient oral saline. If dehydration has already developed the patient should be taken to a hospital at once. Normal feeding of a patient should continue and a dose of vitamin A given after the patient recovers.

- Training the physicians, nurses and other paramedics and auxiliary staff on clinical subject and health education
- Provision of drugs and saline to health facilities
- Provision of transport to workers and diarrhoea cots (these are also provided through other project)
- Opening of diarrhoea training units (DTUs) in medical colleges
- Opening of oral rehydration therapy corners (ORTC) in district hospital and thana health complexes where hotchpotch (khitchuri) is provided to any patient who needs to be observed for more than 4 hours. Mothers are educated on prevention of diarrhoea and on how to prepare oral saline and health education on other issues and
- Production and distribution of information education and communication (IEC) materials, such as, posters, banners, fliers, TV spots, audio cassettes and video cassettes.



3.2. Exercise

3.2.1. Multiple choice questions

Tick (✓) the correct answer

1. The most common cause of diarrhea is
 - a. Bacteria
 - b. Viruses
 - c. HIV
 - d. None of above.

2. The breast-feeding should be
 - a. Continued to diarrhoeal child
 - b. Discontinued to diarrhoeal child
 - c. Discontinued to diarrhoeal child for some times
 - d. None of above.

3.2. Short and broad questions

1. What should the mother do if her children are suffering from diarrhoeal? What should she do the following day?
2. Do you think the mother should go to a hospital immediately?
3. What would you do if such a patient comes to you?
4. What should you do if you are working in an ORT corner?
5. How should you start a health education on prevention and management of diarrhoea?

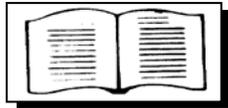
Lesson 4: Control of Communicable Disease-II

4.1. Learning Objectives



After completion of this lesson you will be able to -

- say about the public health important parasitic diseases prevailing in the country
- say the cause, transmission and prevention of parasitic disease.



Malaria, Kala-azar and Filariasis

Malaria and Kala-azar were almost exist in Bangladesh but they re-appeared after the liberation because of stoppage or failure of insecticides.

Two different very common types of domestic mosquitoes transmit malaria and filariasis. These are anopheles and culex mosquitoes respectively. Kala-azar is transmitted by a strange fly, sand fly, which however, hops and does fly.

All of these three diseases are parasitic in nature either afflicting the red blood corpuscles, moncytic-phagocytic white blood cells or fixed or wandering tissues cells (intracellular) and extracellular lymphatic nodes or channels in the body respectively.

The parasite that causes malaria is known as plasmodium. Kala-azar is caused by a parasite know as leishmania, filariasis by Wucherria or Brugia in Bangladesh. Different members of the specific parasite family cause filariasis in different regions of world.

Common Types of Malarial Parasites

- *Plasmodium vivax*
- *Plasmodium falciparum*
- *Plasmodium malariae*
- *Plasmodium ovale*.

Malaria can be diagnosed clinically by taking a history. A typical manifestation of 3 stages cold, hot and sweating should indicate malaria.

Among these four, povale is not found in Bangladesh. Plasmodium vivax is common in the plain land areas of Bangladesh and Plasmodium falciparum in forests and hills. Plasmodium malareae is very infrequent. Vivax malaria is almost benign in nature not affecting more than 2% of the R.B.C.s. Plasmodium falciparum is the most dangerous. Death from malaria is caused by this species of malarial parasite.

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The classic symptoms of malaria show three stages. A cold stage when along with a feeling of cold and shivering temperature starts rising very rapidly. Within 2 to 3 hours it reaches up to 105⁰F or 106⁰F. There will be an intense headache and body ache. The second stage begins with a feeling of intense thirst, heat, vomiting and then sweating. Within half an hour temperature subsides and the patient becomes ambulatory. This cycle of bouts repeats itself every alternate day in case of vivax malaria and every third day in malaria of quarter malaria. In case of falciparum malaria it may happen every day or on alternate days and the typical stages may be absent. In case of vivax in the initial days this typical feature may not be seen.

In kala-azar the patient gives the history of ill feeling for months and looks darkened.

In Kala-azar there is low-grade temperature for several months and gradual emaciation of the body and darkening of skin, without affecting the mobility and appetite. Like in malaria, there is swelling of the legs, scrotum etc. and breasts in the case of women. The swelling does not pit on pressure.

Malaria parasites after entrance into a human host (an intermediate host since sexual stages are not developed in man) through the bite of an infected mosquito go into the liver. After 10 to 12 days (falciparum) or 2 weeks (vivax) burst open the liver cells and enters the blood to attack red blood cells (RBCs). After a batch of RBCs are attacked and parasite maturation in them they burst open and appear in pre-sexual stage in the peripheral blood of human host from where a another mosquito takes them up along with its blood meal. In the mosquito gut male and female forms of the parasites fuse with each other, and cowed into the proboscis of the mosquito to enter into another human host when the mosquito bites for its next meal, which the mosquito needs for playing own eggs.

Malaria cases should be confirmed by taking blood slides. For kala-azar patient's blood should be taken in filter strips or test tube and refereed to regional laboratory. Advise should be given to people who are suffering form malaria, kala-azar or filariasis to refer similar cases if they one find.

In the case of Kala-azar the parasite, after maturation in the guts of the sand fly, enters a new host during the bite of the sand fly and enters into the liver, spleen and the lymph nodes. In case of filariasis the parasite enters the lymph channel and lymph nodes from the blood vessels.

Mosquitoes lay eggs in water but the 3 types of species named above lay eggs in three different types of water. Anopheles lays eggs in clean water and culex in dirty water. While culex lives in dark places and corners and under or around furniture anopheles lives around the house-outside in bushes, jungles and trees.

Treatment and Prevention

Destruction of breeding site is the prename prevention strategy.

- Destruction of bushes and jungles around habitats and filling up of ditches and holes.
- Destruction of water hyacinth around habitats.
- Collection strewn outposts, bottles, cans where water may accumulate and their destruction or underground disposal.
- Spraying of breeding site-with anti larvicide, e.g. malathion, pyrethrin or pyrethrum or deltamethin in plain lands.
- In Kala-azar prevalent areas government still uses DDT because it is cheap and very effective against sand fly but not against anopheles.
- Use of deltamethrin or pyrethrum impregnated bed nets by all the family members.
- Use of insect repellent on the body.
- Home spraying with an insecticide.

Malaria, Kala-azar and Filaria Control in Bangladesh

The directorate General of Health Services has a Malarial and Other Parasite Disease Control section for programming and policy initiation to control the above disease. There is another institute called Institute of Epidemiology, Disease Control and Research (IEDCR) for doing surveillance and research on how to control this disease. These two offices sometime in conjunction.

In Bangladesh Khagrachori, Rangamati, Bandarban, Cox's Bazar, Sunamganj, Netrokona, Sherpur, etc are the most prevalent areas in that order of malaria specially falciparum type. In hill tract areas about 60 to 70 percent cases are falciparum in type. Vivax malaria is seen in districts that are bordering with India. Some cases are found of vivax, in even Narayanganj, Kala-azar is common along the basin of the old Brahmaputra, e.g, Gaibandha, Sirajgonj, Tangail, Mymensingh, Jamalpur including Thankurgaon, Nawabgonj and Rajshahi etc. Filariasis is common in Rangpur, Lalmonirhat, Panchgarh, Dinajpur, Kurigram and Nilphamari.

Through a project called ICOVED (Integrated Control of Vector Borne Disease) government is doing some research on the vector bionomics and drug efficacy, training of all categories of staff on clinical intervention, mapping and surveillance, distribution of impregnated bed nets or impregnation of bed nets or impregnation of bed nets, procuring and spraying of insecticides (only in plain lands) and procuring and distribution of drugs. Efforts are start a control programme for filariasis through medication of salt with diethyl carbamazine and its distribution

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in the prevalent areas. WHO helps the government in all of these activities?

The latest technique in the control of malaria is to implement a strategy of Early Diagnosis and Prompt Treatment (EDPT). Under this programme a field worker (HA) is supposed to give the first dose of quinine intramuscularly, if the patient is unconscious with suspected malaria and then refer the patient to hospital. In Kala-azar control programme regional centres have been established for sero surveillance with the help of a new serological test called Direct Agglutination Test or DAT. Regents for this test is produced at IEDCR.

An IEC materials have also been produced to urge people to destroy mosquito-breeding sites and to use impregnated bed nets and seeks medical help, when necessary, without delay.



4.1. Exercise

4.2.1. Multiple choice questions

Tick (✓) the correct answer

1. Which parasite is responsible for kala-azar
 - a. Pseudomonas
 - b. Straphylococcus
 - c. Clostridium
 - d. Plasmodium

2. Classic symptoms of malaria show
 - a. 2 stages
 - b. 3 stages
 - c. 4 stages
 - d. 5 stages.

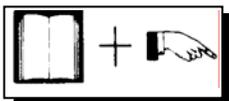
3. 60 to 70% malaria in hill tract is caused by
 - a. Plasmodium vivax
 - b. Plasmodium falciparum
 - c. Plasmodium malarial
 - d. Plasmodium vovale.

4.2.2. Short and broad questions

1. What do you think the disease is and what may be the cause?
2. How can such a case be treated and others prevented from this disease?
3. What advise will you give to this patient and his/her neighbours?

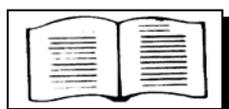
Lesson 5: Control of Communication Disease-III

5.1. Learning Objectives



After completion of this lesson you will be able to -

- describe the cause, clinical feature and epidemiology of mycobacterial diseases
- describe the prevention of mycobacterial disease and
- describe the treatment of mycobacterial disease.



Cause, Clinical Feature and Epidemiology of Mycobacterial Diseases

Mycobacterial diseases are of two types tuberculosis and leprosy.

Tuberculosis is caused by *Mycobacterium tuberculosis*. This is an acid-fast bacilli, it retains Ziehl Nelson stain even when washed with acid. Tuberculosis may also be caused by some other less infectious mycobacteria especially in immuno-compromised people. Some define, avian and animal mycobacteria may also cause tuberculosis in man. Bovin tuberculosis has been found to infect children not so infrequently. Intestinal tuberculosis and cervical tuberculosis (lymph nodes in the neck) among children frequently occur due to ingestion of bovine tuberculosis infected cow's milk.

Tuberculosis spread through the air. It can also spread from fomites, utensils, cloths; furniture indirectly-bacilli may lodge on them.

Tuberculosis spread through the air. It can also spread from fomites, utensils, cloths; furniture indirectly-bacilli may lodge on them, survive for some time and enter into a host through air. An infected patient coughs out the bacilli of tuberculosis when his lungs are involved. It has been seen that 50% of the patients suffering from lung tuberculosis spit out the bacilli and infect others. These patients are called open cases. The remaining patients do not expectorate the bacilli. They are called closed case. Tuberculosis may also develop in the bones, eyes, peritoneum and kidneys in addition to the lungs and the lymphatic glands.

Tuberculosis is common among young and active, especially among males aging between 20 and 35 years belonging to poor families.

Tuberculosis is a very prevalent disease in Bangladesh. Different surveys have indicated that about 35 people suffer from tuberculosis out of 10,000 people in Bangladesh; half of who are open, infective. In total there are about 15 lacs TB patients in the country.

Tuberculosis is common among young and active, especially among males aging between 20 and 35 years belonging to poor families. This means that by infecting bread earning aged people, also causes loss of bread earning capability in the family and poverty.

Tuberculosis of the lungs causes cough, fever, especially at night with sweating, chest pain, weight loss, malaise.

Tuberculosis of the lungs causes cough, fever, especially at night with sweating, chest pain, weight loss, malaise. Hemoptysis and offensive expectoration is seen in advanced conditions. In other organs such as the lymph nodes, it causes granuloma formation and causation.

In leprosy the hallmark clinical feature are: swelling of the nerves of the affected region, discoloration of the skin loss of sensory feeling and sweating in the affected part.

Leprosy is a very mildly infective organism, Exposure, for year's only transmission of the disease. Leprosy has two distinct types besides indeterminate (at the initial stage) and borderline (pre nodular) types. Tuberculoid leprosy is the most prevalent type in Bangladesh (80% of the leprosy cases). It is almost non-infective. It is also known as paucibacillary since a slit skin from the affected part, under the microscope shows very scanty presence of bacilli. On the other hand the lepromatous type, nodular in appearance is called multibacillary. It is the most infectious type of leprosy.

In leprosy the hallmark clinical feature are: swelling of the nerves of the affected region, discoloration of the skin loss of sensory feeling and sweating in the affected part (in tuberculoid type), swelling of the affected skin and appearance of nodules specially on the eye brows, ear lobe, fore-head, chin. Involvement is bilateral from the spinal column but not symmetrical in distribution. In advanced stages there is loss of eyebrows, foot drop or wrist drop, pyogenous infection of injured distal parts of the body and their absorption, which gives appearance of claw hand.

Leprosy is not a genetic disease and has nothing to do with God's wrath.

Leprosy can also involve other organs of the body and can be transmitted the way tuberculosis gets transmitted. Leprosy, due to a very long incubation period, also appears in youth or older age and more among males.

Prevention of Transmission of Mycobacterium

Tuberculosis mainly spreads through air and milk.

Tuberculosis: Tuberculosis mainly spreads through air and milk. In renal tuberculosis urine may also be a vehicle of transmission. Some atypical tuberculosis can be acquired from birds and other animals very rarely especially in immuno-compromised hosts, patients suffering from neoplasm or taking drugs for it, HIV infection or AIDS. (Among AIDS patients TB is very common). A person suffering from cough for more than one month should be suspected for TB and his sputum should be tested for acid fast bacilli-the surest way to confirm TB. Radiology may not be a very dependable test and Mantoux test is often false positive. Quick test of sputum and immediate treatment cuts the transmission potential short. Patients should be advised not to spit in

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open spaces. A fixed pot should be used and frequently incinerated to kill the germs.

Leprosy

Leprosy patients should also get treatment as soon as possible. This will make the patient non-infective after three months of treatment. With 6 months or treatment of TB and one and half year's treatment of leprosy, patients get cured. Treatment is available in every thana health complex of the country.

The Bangladesh government has started a project to control TB and leprosy in the country by 2000 A.D. Through this project training is given to all the health care provides belonging to government or non-government organization as per relevance of the personnel-clinical management, laboratory diagnosis etc. Medicines and other facilities are also provided. It is estimated that 80% of the TB and leprosy patients are being identified and treated though this project initiative.



5.2. Exercise

5.2.1. Multiple choice questions

Tick (✓) the correct answer

1. Tuberculosis is caused by
 - a. M. avium
 - b. M. botulium
 - c. M. tuberculosis
 - d. M. perfengen.

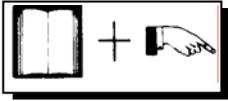
2. Tuberculosis is common among
 - a. 20-35 years
 - b. 36-45 years
 - c. 46-55 years
 - d. 56-65 years.

5.2.2. Short and broad questions

1. What is tuberculosis?
2. What are causes and clinical feature of tuberculosis?
3. How would you prevent tuberculosis and leprosy?

Lesson 6: Communicable Disease Control-IV

6.1. Learning Objectives



After completion of this lesson you will be able to -

- know about acute respiratory infection, its prevalence risk factor and management.



Introduction

18 to 25% of deaths in Bangladesh are due to ARI

40 to 60% of child OPD patients in hospitals suffer from ARI

30 to 40% of child indoor patients are of ARI

On average per year a child suffers from 5 to 6 bouts of ARI and each episode lasts for 7-14 days.

Epidemiology

Mostly bacteria Streptococci, Staphylococci, Bordetella, Hemophilus, Pneumococci and measles, rhino and corona viruses causes ARI.

ARI risk factors are -

1. Low birth weight
2. Inadequate breast feeding
3. Malnutrition
4. Non-vaccination
5. Lack of vitamin A in the body
6. Cold or damp weather
7. Dense living and
8. Contaminated water.

Any child less than 5 years of age suffering from cough and respiratory distress should be taken to be suffering from ARI.

Diagnosis

Any child less than 5 years of age suffering from cough and respiratory distress should be taken to be suffering from ARI.

Ask the mother or care taker the following questions in order to diagnose a case of ARI.

1. Baby's age.
2. Cough with duration, if any.
3. If the age is 2 months to 5 years whether the child can drink liquid
4. If the child is less than 2 months of age whether the baby can suck breast milk.
5. Convulsions.

Observe the child for the following while the child is calm and quiet -

1. Respiration rate per minute
2. Whether the chest is drawn in on the sides with inspiration
3. Noisy respiration
4. Windy sound during expiration
5. Drowsiness
6. Body temperature high or low
7. Severe malnutrition: marasmus or kwashiorkor.

Count the rate of respiration rate when the child is calm and quiet twice and match it with the following-

Child's age	Unnatural rate of respiration (Pneumonia)
< 2 months	60 or more/minute
2-12 months	50 or more/minute
one-5 years	40 or more/minute

Classification of A.R.I.

Child's age 0-2 months	Child's age 2 months - 5 years
1. Very severe pneumonia	Very severe pneumonia
2. Severe pneumonia	Severe pneumonia
3. Cough and cold	Simple pneumonia Cough and cold

Signs of Very Severe Pneumonia

Any one of the following will mean very severe pneumonia

1. Inability to drink or vomiting after each drink
2. Convulsion
3. Drowsyness

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4. Noisy respiration while calm and quiet
5. Severe malnutrition.

Signs of Severe Pneumonia

1. None of the above
2. In drawing of chest during inspiration

Signs of Simple Pneumonia

1. None of the above
2. Rapid respiration as per the table above

Treatment

A. Very Severe or Severe Pneumonia

1. Send the patient to hospital immediately after one dose of co-trimaxazole. (Do not give co-trimaxazole if the patient cannot swallow, if unconscious, if jaundiced, if low birth weight baby)
2. Keep the patient warm

Dose of co-trimaxazole tablet:

0-2 months of age: one paediatric tablet

2-12 months of age: two paediatric tablets

12-60 months of age: three paediatric tablets.

Alternatively an adult tablet, which is equal to 4 paediatric tablets, can be given proportionately.

B. Simple Pneumonia

1. Treat with co-trimaxazole tablet.

Dose of co-trimaxazole:

2 months - 12 months: morning and evening: 5 days.

12 months - 60 months: morning (2 tabs) and evening: 5 days.

Give the tablet again if patient vomits out the previous tablets within 0.5 hours of ingestion.

2. Examine the patient after two days. If the patient show the signs/symptoms of severe or very severe pneumonia hospital the patient.

C. Cough and cold.

No medicine is necessary.

Treat fever if necessary.

Hospitalize, if cough lingers for more than 30 days.

Advise

1. Give frequent feed specially liquid to sick child and increase food for some days after recovery
2. Give warm water, lemon juice, honey, basil leaf juice
3. Cleanse nose
4. Keep the patient warm
5. Do not give medicine for fever to infants less than 2 months of age
6. If temperature is very high pour water in patients head and wipe the patient with wet, cold water (body and limbs)
7. If fever lingers for more than 5 days, there patient hospitalize.



6.2. Exercise

6.2.1. Short questions

1. What are the risk factors of ARI?
2. Classify ARI. What are signs of very severe pneumonia?

Lesson 7: National Programmes for Prevention of Blindness and Nutritional Disorders

7.1. Learning Objectives



After completion of this lesson you will be able to -

- blindness prevention programme in Bangladesh
- malnutrition prevention programme in Bangladesh.



Blindness Prevention Programme of Bangladesh (BPPB)

Night blindness, vitamin A deficiency and xerophthalmia identified as a public health problem in Bangladesh in a study in 1972-73 (WHO). At this time blindness prevention programme of Bangladesh (BPPB) was started in 1973 by the government.

In 1980 the programme was brought under the control of the institute of public health nutrition (IPHN).

This programme starts to distribution of high potency vitamin A capsule to children aged 6 month to 6 years with UNICEF assistances.

From mid nineties, vit. A capsule has been distributing through national immunization days and vit. A capsule week.

Distribution schedule of vit. A capsule: 1 cap (25000 i.v) every 6th month started from 6 month of age to 6 years.

Iodine Deficiency Disorders Programme (IDDP)

- It was started in 1985 December by the ministry of health and family welfare to control iodine deficiency disorders (goitre and cretinism) in hyper endemic area of the country. This is an infection (lipiodal) campaigns.
- Besides lipiodal infection programme iodized salt intake campaigns is another aspect of IDDP.
- From Mid nineties, the government has embarked on a national salt ionization program with the assistance of UNICCF. By law, no edible salt can be produced or sold in the market, which has not been iodized.

The Bangladesh Integrated Nutrition Project (BINP)

To control and prevent the problem of malnutrition in Bangladesh, the ministry of health and family welfare has launched a five year pilot programme in 40 selected upazil as from July 1995. Target population of BINP, children above 2 years pregnant and lactating mothers and newly married couples.

The National Nutrition Programme (NNP)

The success of the BINP created a lot of interest in the government and in donors. The World Bank has come up with a financial backing to set up the national nutrition programme (NNP). It plans to replicate the BINP activities to all areas of Bangladesh from July 1999.



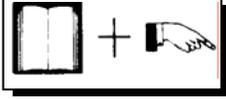
7.2. Exercise

7.2.1. Short questions

1. What are BPPB?
2. What are IDDP?

Lesson 8: Community Development Programs' Impact

8.1. Learning Objectives



After completion of this lesson you will be able to -

- describe the development and the community development approach
- describe the impact of community development programs on health and family planning.



Development

Development is more than improvement. Any development is a process of gradual progress where each subsequent improvement builds upon the previous one in a particular direction without any meandering. This means that in order to develop development has to be sustainable. Sustainable development has to be environment friendly, i.e. it should not destabilize the environmental balance otherwise environmental degradation may a result. Construction of dam or highway may leave an excavated piece of land, which may collect water and breed mosquitoes. So the development that may accrue from construction of a bridge may be ineffective if mosquitoes transmit people start suffering from malaria, filaria and other diseases.

Development is more than improvement. Any development is a process of gradual progress where each subsequent improvement builds upon the previous one in a particular direction without any meandering.

Development cannot come from individual achievements or achievement of a select group of people. If development is not wide spread social unrest and political influence may create tension, rivalry and jealousy that may impede development.

Development has to be all out if it is to be real development. Financial development does not automatically mean social development the middle eastern countries are good examples of this. If development does not touch the individual, society and the country as a whole it will not sustain. For example economic development will halt when the skill level is saturated. If the frontier of the skill level is not enhanced further no more economic improvement will occur after a limits is hit-education will improve the mental faculty, enable one to examine situations more depthly, analyze and think to find out new avenues of development.

Development has to be all out if it is to be real development. Financial development does not automatically mean social development the middle eastern countries are good examples of this.

The ultimate aim of development should be satisfaction, i.e., happiness of an individual within a social and national context. This may be achieved even in a less affluent country if social-political situation is congenial.

Community Development Programs

Capability development is more important than financial development to enhance the latter.

Development therefore should be communal in nature. It should be washed on through a community effort rather than through individual initiative. Although an individual may take lead and start it in the beginning. Developments that are individual centered may deprive others and may even be at cost of others. Also it will lack in resources-mental physical and others.

In Bangladesh there are some good examples of community based community led programs for development that impact on health and family planning at government and non-government level.

Development of women must be ensured to make development meaningful and sustainable.

Bangladesh Rural Development Board, Ministry of Women and Children Affairs, Ministry of Social Welfare and Labour etc. have some community based development activities. Similar programs are also undertaken by Grameen Bank, BRAC, ASA, Proshika, Gonoshahajjo Sangstha etc. in a more comprehensive way. Provision of loans for income generation, agriculture, horticulture, dairy, poultry, Pisciculture, education and health and environmental sanitation are undertaken. Group formation, community mobilization, training etc. are the strategies adopted.

All of the above activities are mainly aimed at females. It is widely believed now that unless there is emancipation and empowering of women who make up 50% of the population of the country development cannot be real and sustained. If women are educated, skillful and decision-maker with regard to family expenditure it has been found that they spend more on education, food and health of children-the future generation. Also such women adopt family planning methods in higher number. This is the reason that all the development agencies now focus on of women.



8.1. Exercise

8.2.1. Short and broad questions

- 1 What do you mean by equitable development?
- 2 What is the risk if development is not all our or multi faceted?
- 3 How can you ensure participation of women in the development process?
- 4 What is the benefit of involving women in decision-making process?
- 5 What is the harm if development efforts are not community based?
- 6 How can you involve community in the development process and in enhancing the goal of health and family planning?

Unit 5: Special Health Services and Team Approach

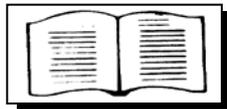
Lesson 1: School Health

1.1. Learning Objectives



After completion of this lesson you will be able to -

- define school health
- say the objective of school health
- understand about the importance of school health.



Definition of School Health

School health service is a branch of community medicine, which deals with promotive, preventive and curative health care of school children in their school environment.

Objectives of School Health Service

- Promotion of positive health
- Prevention of communicable diseases
- Early diagnosis, treatment and follow-up
- Awakening health consciousness among children and
- Provision of healthful school environment.

Importance of School Health Service

School is a place of learning. The health of school children is a common concern of the school parents and the community. The school health is particularly important because school represents for a huge population of age 5-17 years. They are particularly prone and susceptible to many communicable diseases. And vulnerable to physical, mental and moral hazards. A large proportion of school children, particularly in the under developed and developing countries suffer from malnutrition and deficiency diseases. Early detection and prevention of certain disease are possible in school. So to try maximum benefit from the educational programme the child must be healthy physically, mentally and emotionally. School health program makes this possible.

Contents of School Health

1. Screening of school children for any deviation from normal
 - Healthful school environment
 - Adequate toilet and lavatory facilities
 - Pure and adequate water supply
 - Good lighting and ventilation
 - Comfortable chairs and desks
 - Glare proof black board, ceiling and walls
 - Clean and ventilated rest room
 - Play ground
 - Clean environment.
2. Location- it should be located away from busy places.
3. Class room - each classroom should have an independent acutance. Area of classroom should not than 480 sq. meter. Height of the classroom should be about 12 ft. floor should be smooth and clean.
4. Play ground - it should be near the school.
5. Seats and desks
6. Sanitary convenience
7. Water supply
8. Prevention and control of communicable disease
9. Provision of school Tiffin
10. First aid and any emergency care
11. Health education regarding-
 - Personal hygiene e.g., cutting nails, clean dress, clan hair and tooth.
 - Basic information about food and nutrition, body structures the agent of disease role of environment.

School Health Problems

- Malnutrition - under nutrition (or over nutrition)
- Communicable diseases - whooping cough, measles, diphtheria, chickenpox

- Helminthic diseases - ascariasis, enterobiasis, trichuriasis, anchylostomioses
- Skin diseases - Scabies, ring worm infection
- Eye problems - defective vision, conjunctivitis
- Dental problem - Caries teeth
- Ear problem - otitis media
- Throat problem - tonsillitis, sore throat.

Duties and Responsibilities of a School Health Nurse

- Establish a link between school, family and school health unit
- Organize some health programme in the school.
- Assist teachers and school health monitor in the development of healthful school environment
- Identify the cases - that needs medical care.
- Assist Medical Officer - conducting physical examination.
- Active participation in health education programme.
- Make health appraisal of the children and school personnel periodically.
- Follow up the cases.
- Implement deworming program in the school.
- Perform only other function assigned to her by the Medical Officer.



1.2. Exercise

1.2.1. Short questions

1. What are importances of school health services?
2. Write down the contents of school health?
3. What are school health program?
4. What are duties and responsibilities of public health nurse?

Lesson 2: Industrial and Occupational Health

2.1. Learning Objectives



After completion of this lesson you will be able to -

- know about the importance of industrial and occupational health
- understand occupational hazards and their prevention.



Definition of Occupational Health

It is a branch of medical engineering science, which deals with protection, promotion, and the maintenance of health of the people at work.

Objectives of Occupational Health

- The promotion and maintenance of the higher degree of physical, mental and social well being of workers in all occupations.
- The prevention among workers of departures from health caused by their working conditions.
- The protection of workers in their complement from risks resulting from factors adverse to health.
- The placing and maintenance of the workers in an occupational environment adapted to his physiological and psychological equipment and to summarize.
- The adaptation of work to man and of each man to his job.

Occupational Hazards

Occupational health hazards depending upon his/ her occupation. It may be divided into five groups.

A. Physical hazards e.g., Heat, Cold, Noise, Light, Electivity, and Radiation etc.

- Disease due to physical hazards is following.
- Heat - Prickly heat, burn, heat exhaustion, heat syncope, heat cramps, heat hyper- pyrexia.
- Cold - Change in Skin, Mottling, blenny, chilblains, general hypothermia, and frostbites.
- Noise - Occupational deafness,
- Light - Eye shain, beadache, eye pain, laesimation, occupational cataract.

- Electricity - Burns.
 - Radiation - Cancer, leukaemia, aplastic anaemia pancytopenia.
- B. Chemical hazards - Chemical agents acts in three way.
- a. Local action - Dermatitis, Eczema, ulcers.
 - b. Inhalation - gas, poisoning due to inhalation of CO_2 , CO , CS_2 , HCL , SO_2 , NH_2 etc.
 - a. Dust Poisoning - Coal dust (Anthracosis) Asbestos (Asbestosis) Silica (Silicosis) Iron (Siderosis). Cane fibre (Bugassosis), Tobacco (Tobaccosis) Cotton dust (Byssinosis) Grain dust (Farmer's Lung).
 - b. Ingestion - Due to ingestion of chemical the workers suffer from various type of metallic poisoning. Toxic hazards occur from lead, mercury, cadmium, arsenic, chromium etc.
 - c. Biological hazards - The employer as workers suffer from different kinds of diseases caused by bacteria, viruses, parasites and fungi.
1. **Bacterial diseases:** Tuberculosis, Brucellosis, Anthracnose, Tetanus, Plague and Contagions granulomas
 2. **Viral disease:** Hepatitis B and Rabies Cat Scratch disease
 3. Parasites - Hook worm infestation, Ascariasis
 4. Fungal - Candidiasis, Histoplasmosis etc.
- D. Mechanical Hazards - due to machineries, accidents, injuries.
- E. Psychological Hazards: Psychosis, Hypertension, Peptic ulcers, Intustrial neurosis, Depression, drug abuse, Pain in shoulders, neck and back.

Special Measures of Radiology Department Employees

- Inhalation, swallowing or direct contact with the skin should be avoided.
- In case of X-ray shielding should be used of such thickness and of such material as to reduce the exposure below allowable exposures.

Special Health Services and Team Approach

- The employees should be monitored at intervals not exceeding 6 months by use of the film badge or pocket electrometer devices.
- Suitable protective clothing to prevent contact with harmful material should be used.
- Adequate ventilation of work place is necessary to prevent inhalation of harmful gases and dusts.
- Replacement and periodic examination of workers should be done every 2 months if harmful effects are found the employees should be transferred to work not involving exposure to radiation.
- Pregnant woman should not be allowed to work in places where there is continuous exposure.
- Prevention and control of occupational health hazards.

The preventive measure in this respect may be -

A. Medical Measures

- Pre-placement examination
- Periodical, Medical and health care service
- Notification of occupational diseases
- Regular supervision of working environment
- Maintenance and analysis of rescued
- Health education and counseling.

B. Engineering Measures

- Location
- Proper designing
- Good house keeping
- General ventilation
- Mechanization
- Substitution
- Dust control
- Enclosure
- Isolation
- Protective devices
- Periodical monitoring.

C. Legislation

- Factory laws should be strictly followed.
- The workers should obey the factory laws.
- Industrial health regulations should be strictly observed.
- Smoking should be disallowed.



2.2. Exercise

2.2.1. Short and broad questions

1. Define occupational health? What are the objectives of occupational health?
2. What are the occupational health hazards?
3. What are the principles of control of occupational hazards?
4. How radiation hazards can be prevented?

Lesson 3: Poverty and Illiteracy

3.1. Learning Objectives



After completion this lesson you will be able to -

- describe the economic and literacy situation in Bangladesh
- describe the relationship between poverty and illiteracy
- describe this relationship between poverty and illiteracy as causes of disease.



Poverty and Illiteracy

The Bangladesh situation is easily understandable. 40% of the people in Bangladesh live below absolute poverty and almost 60% below poverty level in general. In Pakistan it is US \$ 450 and in India US\$ 380. If compared with the richest countries, such as Kuwait, Brunei and Switzerland who have per capita incomes of US\$ 35,000 to 40,000 per annum.

The per capita income in Bangladesh is about US \$ 240 per year.

The rate of literacy is also very poor in Bangladesh. It is 42% on average at present. Female literacy is always much lower than male literacy.

Social taboos, superstitions and orthodox attitudes of the people exist in Bangladesh due to the vicious cycle of this poverty and illiteracy. This compounds the health problems of Bangladesh because people do not have appropriated knowledge about the healthy ways of life. They have limited knowledge about cheap source of nutritious food so they suffer from malnutrition. They lack self-confidence so they can't demand health service as a right. They do not know what to do and where to go when they are suffering from a health problem. They even do not know why they are suffering from disease, ill health and weakness so repeatedly while others are not.

Although poverty is a cause of ill health and disease, it is not the only cause. Ignorance is equally responsible for ill health of the people who are living in the lower socio-culture stratum. For example anaemia is a condition that 70% of women in Bangladesh have anaemia and it is one of the reasons of lack of physical strength and a high maternal mortality rate in Bangladesh. Today 70% of the people are not all that poor. Anaemia is caused in Bangladesh mainly due to two reasons. Less intake of food that contains iron and because hookworm infestations.

Poverty, illiteracy and disease are all related with each other.

Let us see now why such a big number of women suffer from the lack of iron in their food. It is simply a lack of information and knowledge. Iron is a cheapest food item. It is plentiful in Kochu shak, Lal Shak, Pui Shak,

Sajna Pata, Thankuni Pata, Dhoney Pata etc. Are they very expensive foods or hard to find and collect? Why hookworm infestation occurs? It is simply because of two reasons - indiscriminate defecation in open areas or pedestrian ways and walking bare foot. These are just individual habits and it does not cost much to shun these bad habits.

So, we can see that lack of education, information and knowledge give rise to disease. Many more such examples could be cited.

Poverty and Illiteracy

Due to illiteracy we suffer from disease more frequently more severely and from many varied types. What happens when some body falls sick? He or she cannot earn. He or she has to spend money on doctor and medicine. Due to shortage of income family members eat less and may suffer from malnutrition. Malnutrition facilitates occurrence of disease. If a student falls sick too frequently that he or she cannot go to school cannot concentrate on studies. So disease not only spawns poverty but illiteracy also. On the other hand poverty is also a reason of illiteracy. Poor father wants his children work with him and help him in earning more instead of going to school, which costs money, which he cannot pay. This father would like to have more children because he thinks that the more children he has the higher will be his income. On the other hand, when he has got too many children his wife is too weak due to repeated pregnancy to borne healthy children. Also since there is scarcity of food due to poverty, not much food can be managed by the family to raise their children strongly. Since the children cannot grow strong physically and mentally so they are not capable more. This is the cycle of poverty that we all must understand.

We must realize the intricate relationship between poverty illiteracy and disease and try to address this problem through health education.

We have said earlier that poverty is not the only reason of poor health only. If we take the example of Sri Lanka where the per capita income is US\$ 500 per annum, the infant mortality rate is about 16 per 1,000 live births and maternal mortality about 60 per 100,000 live births. If poverty the only reason for ill health Sri Lanka health situation should be about 2.25 times better than Bangladesh. Bangladesh has a per capita income of US\$ 240/annum. Its infant mortality rate is 77 per 1,000 live births and maternal mortality is 500 per 100,000 live births. There is other example as well. Although Kuwait's and Brunei's per capita income is much higher than that of the USA and Sweden but their health status is not as good as of the USA and Sweden.



3.2. Exercise

3.2.1. Short questions

1. Describe the economic and literacy situation in Bangladesh.
2. What are the relation between literacy and poverty?

Lesson 4: Health Related Laws

4.1. Learning Objectives



After completion of this lesson you will be able to -

- about health regulation and
- importance of health laws implementation.



Introduction

Here, we can just mention some important laws and the year they were come into effect. Don't try to remember them all, but capture the important - one, which might be necessary for you.

A. Registration of Vital Events -

- i. The Bengal Birth and Death Registration Act, 1883.
- ii. Births, Deaths and Marriages Registration Act, 1886.

B. Communicable Disease Control -

- i. The Bengal Prevention of Inoculation Act, 1865.
- ii. The Bengal Vaccination Act, 1880.
- iii. Epidemic Diseases Act, 1897.
- iv. Public Health (Emergency Provisions) Ordinance, 1944.
- v. The Bengal Diseases of Animals Act, 1944.

C. Food and Drugs Control -

- i. The Opium Act, 1858.
- ii. Poisons Act, 1919.
- iii. Dangerous Drugs Act, 1930.
- iv. Drugs Act, 1940.
- v. Opium and Dangerous Drugs Act, 1957.
- vi. The East Pakistan Animal Slaughter (Restriction) and Meat Control Act, 1957.
- vii. The East Pakistan Pure Food Ordinance, 1959. (Salient features are given at the end of the chapter).
- viii. The East Pakistan Government Fisheries (Protection) Ordinance, 1959.

Special Health Services and Team Approach

- ix. The East Pakistan Food (Special Court) Act, 1965.
- x. Narcotics Control Act, 1990.

D. Medical Education and Health Practices -

- i. Leprosy Act, 1898.
- ii. Lunacy Act, 1912.
- iii. The Bengal Nursing Act, 1934.
- iv. Eye Surgery (Restrictions) Ordinance, 1960.
- v. Medical Degree Act, 1961 (Amended in 1976).
- vi. Malaria Eradication Board Ordinance, 1961.
- vii. Medical Council Act, 1973.

E. Environmental Health -

- i. The Bengal Public Parks Act, 1904.
- ii. The Bengal Smoke Nuisance Act, 1905.
- iii. The Bengal Agricultural and Sanitary Improvement Act, 1920.
- iv. Mines Act, 1923.
- v. The Bengal Water Hyacinth Act, 1936.
- vi. The Town Improvement Act, 1953.
- vii. The East Pakistan Water Supply Sewerage Authority Ordinance, 1963, (Amended in 1966).
- viii. Factory Act, 1965.
- ix. Water Supply and Sewerage Authority (amended) Ordinance, 1969.
- x. Water Pollution Control Ordinance, 1970 (Amended 1974).
- xi. The Environmental Pollution Control Ordinance, 1977.

F. Social Welfare -

- i. Municipal Administration Ordinance, 1960 (Amended 1969, 1975).
- ii. Female Infanticide Prevention Act, 1870.
- iii. Reformatory Schools Act, 1887.
- iv. The Bengal Juvenile Smoking Act, 1919.
- v. Workmen's Compensation Act, 1930.
- vi. Child Marriage Restraint Act, 1930.

- vii. The Bengal Suppression of Immoral Traffic Act, 1933.
- viii. Employment of Children Act, 1938.
- ix. The East Bengal Prohibition of Smoking in Show Houses Act, 1952.

Some Important Laws

Malignant Act Likely to Spread Infection

Whoever malignantly does any act which is, and which he knows or has reason to believe to be likely to spread the infection of any disease dangerous to life, shall be punished with imprisonment of either description for a term which may extend to two years or with fine, or with both.

Disobedience to Quarantine

Whoever knowingly disobeys any rule made and promulgated by the government for putting any vessel into a state of quarantine, or for regulating the inter-course of vessels in a state of quarantine with the shore or with other vessels, or for regulating the inter-course between places where an infectious disease prevails and other places, shall be punished with imprisonment of either description for a term which may extend to six months, or with fine, or with both.

Adulteration of Food

Whoever adulterates any article of food or drink, so as to make such article noxious as food or drink, intending to sell such article as food or drink, or knowing it to be likely that the same will be sold as food or drink, shall be punished with imprisonment of either description for a term which may extend to six months, or with fine which may extend to one thousand Taka, or with both.

Sale of Noxious Food

Whoever sells or offers or exposes for sale as food or drink, any article which has been rendered or has become noxious, or is in a state unfit for food or drink, knowing or having reason to believe that the same is noxious as food or drink, shall be punished with imprisonment of either description for a term which may extend to six months, or with fine which may extend to one thousand Taka, or with both.

Sale of Adulterated Drug

Whoever, knowing any drug or medical preparation to have been adulterated in such a manner as to lessen its efficacy, to change its operation, or to render it noxious, sells the same or offers or exposes it for sale or issues it for any dispensary for medical purposes as unadulterated or causes it to be used for medicinal purposes by any person not knowing of the adulteration, shall be punished with imprisonment of either description for a term which may extend to six months or with fine which may extend to one thousand Taka, or with both.

Fouling Public Water Source

Whoever voluntarily corrupts or fouls the water of any public spring or reservoir, so as to render it less fit for the purpose for which it is ordinarily used, shall be punished with imprisonment of either description for a term which may extend to six months, or with fine which may extend to five hundred Taka, or with both.

Making Atmosphere Noxious to Health

Whoever voluntarily vitiates the atmosphere in any place so as to make it noxious to the health of persons in general dwelling or carrying on business in the neighbourhood or passing along a public way shall be punished with fine, which may extend to five hundred Taka.



4.2. Exercise

4.2.1. Short question

1. Name three important health laws with their year of execution- those are directly related to nursing.

Unit 6: Family Health

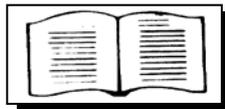
Lesson 1: Family Health Programmes

1.1. Learning Objectives



After completion of this lesson you will be able to -

- meaning and definition of family health
- concerns of family health and
- current family health programs in Bangladesh.



Introduction to Family Health

In progress of time, health services getting more specialization and branching. In this stage, health cares expanding from person to family, from family to community and from community to country. If we see it by picture, it is like an expanding graph of people that chronologically increase in size.

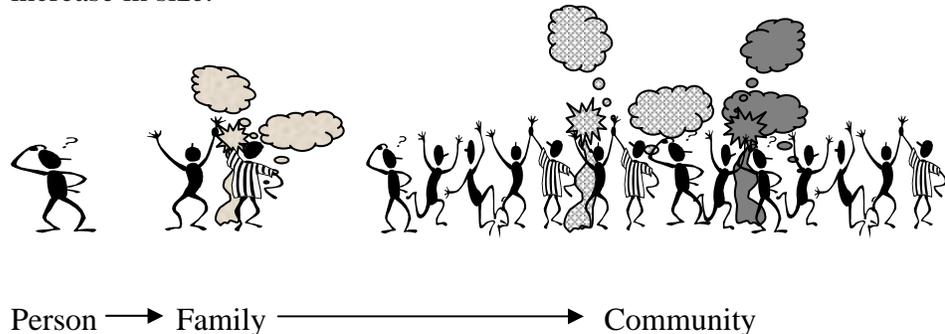


Fig. 2: Cycle of family health program.

So, we can describe the family health as a package of services those necessary for treatment of common ailments of a family and thus record a status of health services of that family.

Many of the diseases are communicable. So, all people in a group suffer one after one. Scientists observed that if health service providers plan for package-services, instead of individual's care, it could be more beneficiary to the society. This is more practical, feasible and true for poor country like Bangladesh. This observation leads a new service-package, which is known as family health programs. Some association provides degrees for this specialty on family health (such as MCPS, MRSH etc).

The Health Services of Bangladesh have two wings -

- Health services
- Family planning services.

Family Health

So, we can describe the family health as a package of services those necessary for treatment of common ailments of a family and thus record a status of health services of that family.

Detailing of Family Health

We studied meanwhile that family is a simple group of people taking food from one kitchen. In Bangladesh, family comprise of-

- Father (or husband)
- Mother (or wife) and
- Children.

This type of family is known as nuclear family. If the family has more than one father, such as:

- Father
- Son and son-in-law and or
- Grand children

We called it extended family.

The total health situation of the family, both curative and preventive, is comprehensively known as family health.

Most of the rural areas in Bangladesh have extended family. This is important for family health nursing because many diseases spread through siblings and kids.

Family health concerns with the common illness of the persons living in a family. The total health situation of the family, both curative and preventive, is comprehensively known as family health.

Concerns of Family Health

Following areas of ailments are generally covered in family health program.

1. Demographic

- Name
- Age
- Sex
- Religion
- Educational Status
- Marriage
- Amount of income.

2. Person

- No. of person in the family
- No. of children in the family
- No. of female in the family
- No. of aged person in the family

3. Disease

- Name of the disease present
- Duration of the illness by person
- No. of person suffering from the disease(s)
- Quest of the past illness (i.e., 1 month/ 6 month/ 1 year back)
- No. of person suffered
- Treatment received
- Place of treatment (home/ hospital)
- No. of children suffering specifically from ARI/ Diarrhoea/ Measles etc.
- Immunization status of the children
- Pregnancy status with ANC/ NC/ PNC
- TT vaccination status of the capable woman
- Presence of any communicable or notifiable disease in the family (or neighbour).

4. Other Health Related Areas

- Sanitation
- Safe water
- Health awareness and education
- General responses to health living.

Different health providers use different structured sheet for data preservation and IEC (Information Education Communication) materials to assess family health. You can check this by yourself going to a health worker such as, Health Assistant (HA) or Family Planning Assistant (FPA). It is better to understand family health status going through the registrars, usually every health workers kept with them on duty.

Family Health Program in Bangladesh

To understand the health service network of Bangladesh, it is essential to understand the administrative structure of the country. Bangladesh possesses a unitary government system with no province. There are 6 divisions (bivag), 64 districts (zila), 460 upazilas, 4500 unions, 13500 wards, and 68000 villages (gram) in the country. Several villages make a ward, and 3 wards make a union.

A union is the lowest level of elected local government system.

Several unions make a upazila, and several upazila make a district.

Again, several districts make a division.

The division is usually regarded as region although the closest administrative link is maintained between the ministries and district administrations directly.

Besides the centre-based static health staff, the country provides large number of health and family planning field staff to provide domiciliary services, such as, health education, maternal and child health care, family planning, nutrition, sanitation, communicable disease control and treatment for minor ailments.

At the Upozila Health Complex level, 50-55 personnel and staff work; at the union level, there is 11-12 clinical and supervisory staff; at community level, there are 2 field workers for 6000 people. There are two field supervisors for every 5-6 field worker.

There are 5500 doctors, 24000 nurses, 10600 para medics, 11900 supervisors and 44500 field workers working in the health care system.

Though domiciliary service means coverage of the community by family but till date no family health care service (or package) officially exists.

Despite this good health care network in the public sector, the system is under continuous allegation for poor coverage, inefficiency and poor quality services. Thus, a remodelling in health care system was introduced in 1998 for the 1998-2003 five-year plan. The remodelling termed “Health and Population Sector Programme (HPSP)”.

The HPSP has aimed at major shift from domiciliary based primary health service to centre-based essential service package (ESP) to be distributed from ward-level new community clinics (one for every 6000 people), unification of health and family planning services, establishment of more HFWCs, improvement of hospital management by sector-wide management.

Presently, it has been closed.

This affects on family health services too. However, some NGOs are still providing family health services along with family planning.



1.2. Exercise

1.2.1. Multiple choice questions

Tick (✓) the correct answer

1. As per last data, how many field workers
 - a. 10,000
 - b. 20,000
 - c. 30,000
 - d. 44,000.

2. Bangladesh consists of how many Upozila
 - a. 360
 - b. 400
 - c. 460
 - d. 500.

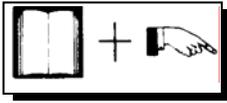
3. Number of nurses working in the government is
 - a. 5500
 - b. 24000
 - c. 10,000
 - d. 11,900.

1.2.2. Short questions

1. What is family health? What are the concerns of family health?
2. Write down the health administrative systems of Bangladesh.

Lesson 2: Family as a Client

2.1. Learning Objectives



After completion of this lesson you will be able to -

- know why we consider family as a client
- understand how nursing process can improve family health.



Family is the basic unit of the society. From the viewpoint of community medicine, we consider the family as the first target group, specially for our country. Western society's family values are not like those of us. They emphasize on individual living because their family life mostly broken. In this regard, our family is considered as a 'centre' or "client". All medical professional should keep this picture in his or her mind.

Advantages for Considering Family as Client

In Bangladesh, people live in family. A family is a compact unit of father, mother, children, grand children and/or close-relatives. Generally, a diseased person impacts on whole family. Medical profession should not escape to take care the other persons of the family, while s/he is asking for treatment of person. This is more obvious when the diseases are originated from communicable or contagious source. Also, there are some diseases, like diarrhocal disorders, mental illness and tuberculosis has either positive family history or possibility of submerged infection in the family. Behavioural aspects are also vital to determine some disease or to improve family health conditions. So, it is equally important and urgent to explore the other family number's health condition, while a medical professional go for treatment or counseling for a single person in a family.

Use of Nursing Process in Family Health Promotion

Nurses should be careful in outdoors or in indoors to follow the process of family health care. It is significant in all steps starting from diagnosis of the patient up to discharge or full cure.

Following are some important areas, where we must be careful in family health care -

A. Taking History

- Does any other person suffer (or suffer) from the same problem?
- Does the problem common in the family?
- Does the problem overlooked by others?

B. Examining the Patient

- Is there any sign of congenital deformity?
- Is there any problem identified, that can be raised from a common behavior?
- Is there any common source of infection?
- Is there any possibility to spread the disease to other family members?

C. Giving Prescription

- Listen about (any) sensitivity on food drug or any other substances.
- Carefully choose the medication and if possible, observe it's reaction for a while.
- Tell them to come back and report, if any adverse effect arises.

D. Follow-Up

- If you have scope, don't miss to query about the previous treatment and its impact.
- Ask and observe, if the problem still persists (i.e., skin disease, diarrhoeal disorder or helminthiasis).
- Note down the common habit that might causes disease (smoking, open-air defecation or early-marriage).

E. Record Keeping

- If you have pre-prescribed form or Registrar, note the follow-up observation with special emphasis to any remarkable point.
- Take or introduce action upon your observation to improve the total health of the family.
- Put your signature clearly mentioning date and time.

Some Important Aspects

If you carefully follow the above steps, you will find some issues those can be treated managed or improved by your initiative, either medical or behavioural.

Family Health

Many of our people suffered from common medical problems that cannot be cured by single person's treatment. Such as scabies and worm manifestation would not be treated individually, because more than one person sharing the same disease, which they might not notice. In the same way, there are many communicable diseases those needed habitual improvement (behaviour) to secure whole family. Such as washing hand by soap (or by ashes) has vital importance to reduce the diarrhoeal attack in a family in a rural area, though the individual practice it selfly.

Lastly, we remind you that in our society, at best 40% diseases are communicable origin. It means, while a person is on acute attack, other sixty percent of the community are in risk. So, open your eyes wide while treating a patient so that you would not forget the others (those who might be benefited by your same visit). This is the ultimate target to consider family as a client.

Without considering the real situation of the society - a medical person cannot assess the real needs. So, you should be always careful about the health infrastructure and health status of the country. In next chapter, we will describe the health situation of the country.



2.2. Exercise

2.2.1. Multiple choice questions

1. Which disease should not be treated alone?
 - a. Anaemia
 - b. Dengu
 - c. Scabies
 - d. TB.

2. In which steps one should be careful in family health?
 - a. History, examination, follow-up
 - b. History, record, prescription, follow-up, record
 - c. Follow-up
 - d. History, examination, prescription, follow-up, record

3. What is the importance of considering family as a client?
 - a. Sick person can be treated
 - b. Everyone can be checked of treated
 - c. Whole family undergo medical supervision
 - d. Elder people come first.

2.2.2. Short questions

1. What are the advantages for considering family as client?
2. Discuss the process of family health care.

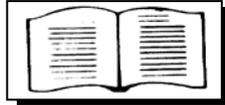
Lesson 3: Assessment of Risk Factor

3.1. Learning Objectives



After completion of this lesson you will be able to -

- understand risk and risk factor
- categorize risk
- assess chance of risk by family.



What is Risk

Risk may be defined as option for opportunity. In health, we indicate some causes those introduce or aggravate a disease, known as risk factor. Have a look on the following table -

Table 1: Risk factors and diseases

Diseases	Risk Factors							
	Smoking	Alcohol	Physical Inactivity	Improper nutrition	Obesity	High B.P.	High Lipid	High glucose
CVD	+	+	+	+	+	+	+	+
Diabetes	0	0	+	+	+	+	+	+
Cancer	+	+	+	+	+	0	+	+
COPD	+	+	0	0	+	0	0	0

+ = Positive risk; 0 = not identified as risk.

An attribute or expose that is significantly associated with the development of a disease is known as risk factor.

Try to understand this table, you will find that where there is 'no agent' for the disease or the etiology is not known very clearly we termed it as 'risk factor'.

By definition you can describe "Risk Factor" as- 'An attribute or expose that is significantly associated with the development of a disease is known as risk factor' (WHO chr. 34).

Risk factor may be of two types -

1. Truly causative (such as smoking for lung cancer)
2. Merely contributory (such as lack of physical exercise for coronary heart disease).

The individual, family, group, community or environment may characterize by risk factor.

1. Individual risks are-

- Age

- Sex
 - Smoking
 - Marital status etc.
2. Family risks are mainly arise from the group of people living closely in community or environment, such as :
- Pollution
 - Substandard housing
 - Poor supply of water
 - Poor health services etc.

Categorization of risk factors in the family.

Family is the nucleus of the society. Each nucleus might have different character but it has many common norms and habits. Thus the family can be classified on risks.

If a family has a habit for ‘open air defecation’, it can be a cause diarrhea for all members of the family. Even it can be a source of an epidemic in a community.

Similarly, asthma can be caused to the members of the family living under ill ventilated, suffocated or moistly room, or living together with a chain smoker for many years.

Bangladeshi society favours for extended families, although in urban life nuclear families are growing faster. In the joint or extended families, elderly people can look after the children, while the adults and the young can look after the elderly ones. For our understanding of the health status and assess the ‘risk’, following table of our country’s health situation would be helpful, in relation to family health.

Bangladesh’s health profile

Left alignment	Right alignment			
Socioeconomic indicators	1980	1990	1995	2000
GNP per capita, Atlas method (US\$)	220	280	320	370
GDP growth (annual %)	1.5	6.6	4.9	5.9
Adult illiteracy rate (%), (age 15+), total	70.8	65	61.9	58.7
Urban population (% of total)	14.4	19.3	21.8	24.5
Malnutrition prevalence (% of children under 5)	68	65.8	57.4	47.7

Family Health

Life expectancy at birth, total (years)	49	55	58	61
Mortality rate, infant (per 1,000 live births)	132	91	74	60
Mortality rate, under-5 (per 1,000 live births)	211	136	94	83
Mortality rate, adult, male (per 1,000 male adults)	383	322	285	278
Mortality rate, adult, female (per 1,000 female adults)	388	308	309	272
Nutrition indicators				
Low-birth weight babies (% of births)	..	50	50	50
Prevalence of anemia among pregnant women (%)	53	53
Population and reproductive health				
Population, total (in thousands)	85438	110025	120130	131050
Population growth (annual %)	2	2	2	2
Population aged 0-14 (% of total)	44.2	42.1	40.9	38.7
Population aged 60+ (% of total)	5.3	4.9	5	5.1
Total fertility rate	6.1	4.1	3.4	3.1
Mortality ratio, maternal (per 100,000 live births)	600	..
Health finance indicators				
Health expenditure, total (% of GDP)	..	2.8	3.2	3.6
Health expenditure, public (% of GDP)	..	0.7	1.1	1.7
Health expenditure per capita (current US\$)	..	7	10	12
Health services indicators				
Physicians (per 1,000 people)	0.1	0.2	0.2	0.2
Hospital beds (per 1,000 people)	0.2	0.3	0.3	..
Immunization, measles (% of children under 12 months)	1	65	79	71
Immunization, DPT (% of children under 12 months)	1	69	69	72
Health care (% of population with access)	..	74
<i>Source: World Bank database 2003</i>				

As a nurse, we should understand these changes or achievements over time (from the year 1980 to 2000) of our health system while serving a person or a family.



3.2. Exercise

3.2.1. Multiple choice questions

Tick (✓) the correct answer

1. Risk factors are of following types
 - a. Three
 - b. Two
 - c. Single
 - d. Four.

2. Risk factor is an
 - a. Exposure
 - b. Illiteracy
 - c. Ignorance
 - d. Ill health.

3. How many babies of born with low birth weight (2000)?
 - a. 70%
 - b. 31%
 - c. 50%
 - d. 45%.

4. How many pregnant women are anacmic (2000)?
 - a. 72%
 - b. 50%
 - c. 53%
 - d. 20%.

3.2.2. Short questions

1. What is risk factor? Classify risk factors.
2. What are the categorizations of risk factors in the family?

Lesson 4: Family Nursing Intervention

4.1. Learning Objectives



After completion of this lesson you will be able to -

- the family nursing intervention.



Interventions are the initiative taken to explore or measuring period its impact after certain period of time. This may be ongoing or measured after the stilled period or event.

Family nursing means the nursing services those provide (in bundle) for the whole family. Such as, a package of MCH covers mothers, children and babies. An ESP covers, minor ailment, EPI, diarrhoeal diseases, pneumonias (and ARI), and family spacing.

A nurse should gather sufficient knowledge and should be properly trained for family package services.

In our country health and family planning both offers some packages like MCH, FP, EPI and other community health cares. Many NGO's are working with their own packages.

In each case, nurses should be well trained, well knowledged and well equipped to provide the services under one umbrella (package). Also they should be capable of feeling the problem in situ from professional viewpoint. S/he should consider the following points while exesizing family health packages -

1. Individual age and sex of the family members
2. Income of the family
3. Size of the family
4. Job of the family member (nature of work)
5. Living condition and environment of the surroundings
6. Locality and geographical position
7. Beliefs, tradition and religion of the clients.

Intervention will be successful if the design of the intervention would consider the above areas carefully.

Also a nurse should explore the scope to intervene a family by following -

1. Don't covered your services in a single fold
2. Search for vulnerability, if any suspicion
3. Make your job comprehensive by organize it routinely and structurally
4. Be methodical with services, advices and feedbacks.

If you have some assignment additional to your routine duty, please, keep the following points in your mind -

1. Method, media and techniques of intervention should be easy, acceptable and previously tested in a same or similar population.
2. If your client is mostly illiterate, use – Audio Video medias, illustration, pictorial chart and other attractive and understandable form.
3. If your population is mostly literate, use - reading materials, audios and questionnaires.
4. To assess the impact, whether it is for research or not, be methodical, truthful and un-ambiguous.
5. Always keep in mind that no community is for research only. So, avoid commanding attitude and 'bossing'.

Intervention has generally two phases:

First, we provide some lesson, instruction, knowledge or some things using appropriate media and method. After certain period, such as 15 days or a month, we (secondly) assess the level of knowledge increased, using various statistical process (impacts).

All intervention generally follows this process and tries to measure the impact by measuring qualitative data to quantity.



4.2. Exercise

4.2.1. Multiple choice questions

Tick (✓) correct answer

1. Method of intervention should be
 - a. Easy, acceptable, pre-tested
 - b. Coloueful, bright, hi-tech
 - c. For research only
 - d. Not appropriate for rural community.

2. 'Problem is situ' means
 - a. No problem
 - b. All problem
 - c. Problem at present
 - d. Problem was is past.

4.2.2. Short questions

1. What is family nursing? Which points should be considered for family health packages?
2. What are phases of intervention?

Lesson 5: Family Health Records

5.1. Learning Objectives



After completion of this lesson you will be able to -

- to define family health records
- to know how family health record maintains.



Health records are always important though people do not maintain it carefully. Family health records having more importance than the books in your showcase because family health comprises episodes of disease of more than one person. However, in case of infections, communicable and inherited diseases, this records value utmost importance. Because, there are some trends and patterns might exist in a family those could guide a physician towards making quick decision and easy solution for treating a family.

Family health record may be defined as comprehensive and systematically organized information written in specified form (register) about the health and health related situation of the family.

Family health record may be defined as comprehensive and systematically organized information written in specified form (register) about the health and health related situation of the family. It might cover socio-demographic, nutritional and environmental issues, which have direct (or indirect) relationship with health. It also noted the cares and the care-provider's information of previous days.

Family records, if gathered in tally sheet, can focus the total health situation of a community. A nurse, physician or researcher can be always benefited from family records.

A family health records covers -

1. Individual health issues
2. Group health issues
3. Environmental issues
4. Socio-demographic issues
5. Health care services
6. Health care providers (organizations)
7. A snapshot view of the whole community, such as style, trend, and traditions.

You must remember that family health records should be noted in a prescribed form, collectively known as register. It should be kept in a safe and accessible place for future use.

Family Health

A typical format usually covers -

1. Name
2. Age
3. Sex
4. Problems (symptoms)
5. Diagnosis (provisional and final)
6. Treatment (given)
7. Follow-up (with dates)
8. Date, place and prescriber's name etc.

How to Maintain?

Family health records generally kept in the permanent service centre, such as, Thana Health Complex, Union Health Centre, Community Clinic or NGO office.

The records are binded in big register putting by serial numbers with date and year marking.

Long period's data can be indexed in a separate register (quick references). Slums, communities or geographical localities can be divided areas in separate or group-registers. In our country, we use voter-area as a primary demarkation line.

A copy of an index-record should be kept in upper offices such as, for union to thana or for subcentre to union. It is for security and safety purpose as well as it gives scope to the higher authority for compiling cumulative register to assess the health status of the whole community covered.



5.2. Exercise

5.2.1. Multiple choice questions

Tick (✓) the correct answer

1. Family records are important, because
 - a. It helps doctor
 - b. It gives a snap-shot view of health
 - c. It covers all members
 - d. All of the above.

2. Cumulative data is analyzed in
 - a. Lower centre
 - b. Upper centre
 - c. Mid-centre
 - d. None of the above.

5.2.2. Short questions

1. Define health records. Why health records should be maintained?
2. Which points should include in health record?
3. How would you maintain health record?