UNIT 1 CONCEPT OF PUBLIC NUTRITION

Structure

1.1 INTRODUCTION

The rapidly changing global trends in the area of food consumption patterns, lifestyles and environment have a tremendous impact on the nutrition and health profiles of the communities. Though today's consumers are much better informed about various issues relating to their health, the information explosion also adds to the confusion in making the right choices and staying clear of misinformation and misconceptions. Therein, emerges the need for professionals with sound knowledge to ensure proper nutrition and positive health of the people they serve. This need is being felt more acutely in the current health scenario prevailing all over the world, though the specific issues may vary from country to country.

In this unit, we will learn about concept of public nutrition. We would learn as to what public nutrition is all about and why do we want to study it? We will begin by explaining certain terms used in the area of public nutrition. We will also learn about the concept and essential component of health care and its delivery. This will help us to understand the role of public nutritionist in health care delivery.

Objectives

After studying this unit, you will be able to:

- define the terms nutrition, health and public nutrition;
- discuss the concept of public nutrition, its scope and future projections;
- explain the concept of health care and the three different levels at which it is available to the community;
- describe the health system as it operates in India;
- describe primary health care and the various components of primary health care; and
- define the role of the public nutritionist in health care delivery.

1.2 UNDERSTANDING THE TERMS: NUTRITION, HEALTH AND PUBLIC NUTRITION

You must have used the terms nutrition and health often in your daily life, though not so often the term "public nutrition". You might be wondering why we want to learn about these terms. However, before we study the course of public nutrition in detail, it is important for us to gain a good understanding of these terms – nutrition, health and public nutrition in a scientific way. Let us start with the term "Nutrition".

Nutrition

You must have studied about the concept of nutrition in the Advance Nutrition Course (MFN-004). Nutrition is defined as *the science of food and its relationship to health*. It is concerned primarily with the part played by nutrients in body growth, development and maintenance. Good nutrition means, "maintaining a nutritional status that enables us to grow well and enjoy good health". The subject of nutrition is very extensive. Since our concern is with community aspects of nutrition, it is paramount to understand the other two terms i.e., health and public nutrition. Let us try to understand what "health" means.

Health

The most widely accepted definition of health is the one given by WHO (1948) in the preamble to its constitution. Refer to Box 1 for WHO definition of health.

Box 1	Definition of Health
"Health is a state of complete physical, mental and social well-being and not merely an absence of disease or infirmity."	

You should also note that this WHO definition has recently been expanded and includes "the ability to lead a socially and economically productive life". However, this concept of health is considered idealistic by many people and by using this yardstick very few, if any, would qualify as being healthy. But, if people consciously follow this goal, then it would enable most people to achieve a more positive state of health. In the absence of a better way of defining health, this definition of health continues to have universal acceptance.

Let us now go over to the term public nutrition.

Public nutrition

Public nutrition is concerned with improving nutrition in populations in both poor and industrialised countries, linking with community and public health nutrition and complementary disciplines.

You would note that public nutrition is an applied and very vast field. It includes many activities as follows:

- an understanding and raising awareness of the nature, causes and consequences of nutrition problems in society,
- epidemiology, including monitoring, surveillance and evaluation,
- nutritional requirements and dietary guidelines for populations,
- programmes and interventions: their design, planning, management and evaluation,
- community nutrition and community-based programmes,
- public education, especially nutrition education for behavioural change,

- timely warning and prevention and mitigation of emergencies, including the use of emergency food aid,
- advocacy and linkage with, for example, population and environmental concerns, and
- public policies and programmes relevant to nutrition in several sectors, for example, economic development, health, agriculture and education.

So, we saw that public nutrition is a very vast field and has many aspects to it. We will now study in detail about the concept, scope of public nutrition and the future projections of this field.

1.3 PUBLIC NUTRITION

You must have heard of various study areas like "public health nutrition", "community nutrition" and "international nutrition". The concept of public nutrition is already established under these study areas, so then why do we want to have a separate course of study. We want to do this so that we develop clarity on our objectives and action and be effective in improving the nutrition situation of the population. Let us start with the concept of public nutrition.

1.3.1 Concept

It is widely quoted among applied nutrition professionals that "*nutrition is not a discipline to be studied; it is a problem to be solved.*" If this is true, then by definition, solving nutrition problems requires multidisciplinary cooperation. The study of nutrition crosses boundaries from the most basic of laboratory sciences to an understanding of global, economic and political interactions among nations. It is important for you to understand that nutrition problems in developing, as well as, developed countries cannot be solved in the laboratory or clinic alone. The constraints to populations achieving nutritional health fall in the economic, social, cultural and behavioural realms. Some of these are: the lack of access to food, its inappropriate distribution among and within households, and maladaptive food and health practices. The skills and knowledge needed to help address these constraints are quite different from those of the laboratory scientist or the medical practitioner. They require a different kind of training from that associated with the science of nutrition.

In a 1996 letter to *The American Journal of Clinical Nutrition*, *Mason* and others suggested the name "public nutrition" to define a new field encompassing the range of factors known to influence nutrition in populations, including diet and health, social, cultural, and behavioural factors and the economic and political context. The suggestion was based on the perception that the field already exists *de facto*, but that its recognition as a legitimate field of study would allow education and professional development to be more explicitly focused on its objectives. Like public health, public nutrition would focus on problem-solving in a real-world setting, making it, by definition, an applied field of study whose success is measured in terms of effectiveness in improving nutritional conditions.

The recognition that nutrition solutions often lie outside the domain of "nutrition" *per se* is not new. More recent approaches have been based on the assumption that nutrition problems will be solved by incorporating nutrition concerns into a wide variety of disciplines as they are translated into action, for example, when consumption issues are integrated into agriculture policies. This approach is correct if it can be made to work, but it is dangerous because nutrition then risks being the responsibility of no one. Putting nutrition under the domain of health, tends to medicalise the field, while putting it under agriculture may marginalise it. We need to remember that public nutrition has a distinct identity, incorporating the relevant aspects of the variety of disciplines that bear on the nutrition problem, as well as, incorporating scientific advances in the

understanding of nutritional problems. Thus, we saw that although public nutrition is recognised as a separate field of study, it does incorporate some elements of other disciplines which contribute to understanding of nutritional problems.

Let us now look at the scope of public nutrition.

1.3.2 Scope

Nutritional status is important as a determinant and correlate of health status and as a marker of individual welfare, in addition to being an outcome in its own right. A consequence of emphasising nutrition as the focus of a programme and policy specialisation may be that solutions then are too often linked to food, failing to integrate health concerns such as immunisation, environmental sanitation, disease prevention and treatment, on the one hand, and poverty alleviation, entitlement and empowerment, on the other. Even in the area of food, many of the region's major food distribution programmes are not viewed primarily as nutrition programmes by those who run them, but as welfare or entitlement programmes.

This raises the question of whether the appropriate field of concentration is one of *nutrition* policies and programmes (public nutrition), or whether it would be better simply to add a nutrition focus to professional training in public health, economics, political science, or other relevant fields. The field of public nutrition is unique in requiring at least some understanding of the entire range of determinants of nutritional outcomes.

The study of these basic determinants extends into areas of economics, agricultural policy, health science and policy, and the social sciences, as well as, public policy and management. We need a multidisciplinary approach to solve nutrition problems. Figure 1.1 shows that we need to improve agriculture, education, community development and health to solve nutrition problems. However, we all tend to stay in our own boxes and thus confined to our area of specialty.

Agriculturalists assume the solution lies in the food supply, medical professionals assume the solution lies in health care or supplementation, nutritionists may assume the solution lies in nutrition education or in food supplements. In any given case, any of these might be appropriate solutions, but the field requires an empirical outlook to assess the entire range of possible interventions and policy responses. A basic but thorough understanding of human nutrition and of the nutritional aspects of food, is also viewed as germane to address nutrition policies and programme.

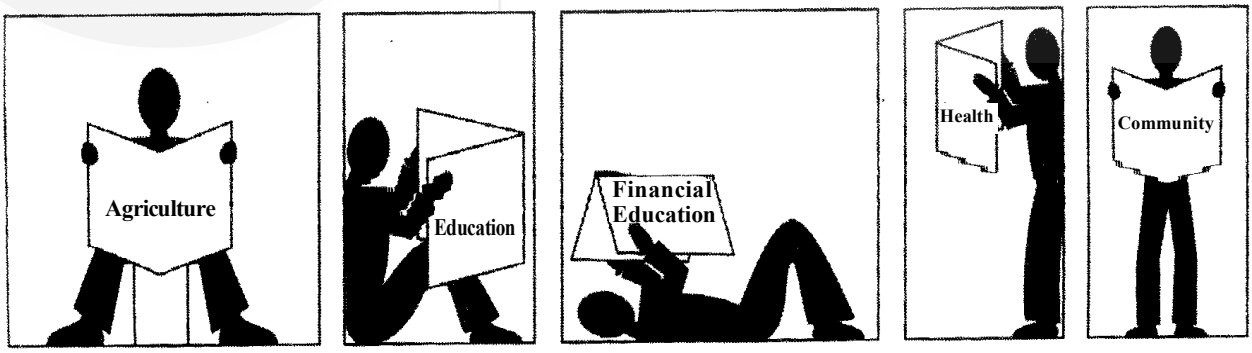

Figure 1.1 : Public nutrition: the need for cross disciplinary breadth in understanding nutritional problems

We should have a systematic introduction to the range of programmes and policies that have affected nutrition in various settings. This introduction should cover design and implementation issues, specific resource needs, and the conditions under which various programmes have been found to be more or less effective. Included in this introduction must not be only nutrition programmes, such as maternal and child health supplementary feeding, school meals, and nutrition education, but also areas outside nutrition, such as public health and environmental sanitation, household food and livelihood security, and food marketing. These programmes should be presented for their direct relevance and

to illustrate forcefully the point that nutrition solutions range well beyond the areas typically defined as nutrition. A great deal of knowledge has been developed through problem analysis, programme evaluations and cost-effectiveness studies; this is clearly an important knowledge base of public nutrition.

The two areas most commonly identified as important to public nutrition were economics and behavioural science. Public nutrition as an applied field, need not focus on econometric analysis or broad economic theory, but on some principles of economics as it applies to households (the household as a production and consumption unit, determinants of intra-household allocation, the value of time, the role of incomes, income sources, and local prices in determining household food security). Some concepts of political economy – the political forces underlying the economic and social conditions that relate to the nutritional situation – are generally held to be central to effectiveness in the field. Understanding the social context of nutrition problems implies knowing the behavioural and cultural factors that can, directly and indirectly, affect the nutritional situation of a community (and, more broadly, the country).

Thus, we realise that public nutrition is a very wide field. As a public nutritionist, we require an understanding of many non nutritional determinants of nutritional outcomes, in order to solve nutritional problems of population. We also need to have a knowledge and understanding of programmes and policies which influence nutritional outcomes. These programmes are both nutritional and non nutritional i.e. education, economics etc.

Let us now study the future projections in the area of public nutrition.

1.3.3 Future Projections

We discussed earlier that the field of public nutrition has existed for a long time, although not by this name. A heterogeneous network of professionals with distinct training and career paths, working in applied nutrition programmes and policy, continues to shape the field, incrementally, through dedication and effort. Although the need for a continuing supply of such persons, albeit with more targeted and appropriate training, is acknowledged widely, funding for the preparation of such individuals is increasingly scarce. A comprehensive effort in public nutrition would need to address appropriate training to a critical mass of key individuals at each level of a country. Such a programme could achieve significant improvement in nutrition and create the human and institutional capabilities to sustain positive nutritional gains well into the twenty-first century.

The appropriate training of applied nutrition professionals to work at the programme and policy levels hence, needs to be supported and recognised. Organisations prepared to fund this set of training activities will play a significant role in enhancing institutional effectiveness, strengthen regional capacity for providing ongoing human resource development, and contribute to the establishment of sustainable training programmes.

Thus, we can appreciate that, as the field of public nutrition gains increasing recognition, there are more and more opportunities for professionals in the applied field to publish and disseminate their work in the academic community. There are journals devoted to food policy and programmes and nutrition journals now commonly contain sections devoted to the policy and programme applications of nutrition science.

Check Your Progress Exercise 1

1. Define public nutrition.

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2. Comment on the statement "Public nutrition: The need for cross disciplinary breadth in understanding nutritional problems."

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In the next section, we would now learn that nutrition is an essential component of health care, so it is essential for us to learn what health care means. We will also learn how health care is delivered in our country and what is the role of public nutritionist in health care delivery. Let us begin with health care.

1.4 HEALTH CARE

Earlier in this unit, we learnt about the concept of health and what we understand by being in good health. Now we would learn about importance of imparting good health to people. We will study about concept of health care, levels of health care, primary health care and how health care is delivered in India.

Let us start with the concept of health care.

1.4.1 Concept of Health Care

We are aware of the fact that health is a fundamental human right. Thus, it becomes imperative for the State to assume responsibility for the health of its people. In order to achieve this objective, globally national governments are engaged in providing adequate health care to their people. Further, there are continuing efforts to improve these services.

Box 2 gives the definition of health care.

Box 2	Definition of Health Care
Health care involves much more than just medical care and can be defined as "multitude of services provided to individuals or communities by agents of health services or professions, for the purpose of promoting, maintaining, monitoring or restoring health".	

Medical care, which is by and large seen as the dispensation of services by physicians themselves or rendered at their instructions, thus becomes a part of the total health care services. Health care services are usually delivered at three levels. These are primary care, secondary care and tertiary care levels.

Let us review each of these levels in detail.

1.4.2 Levels of Health Care

It is customary to describe health care services at three levels. i.e. primary, secondary and tertiary.

Primary level care

This is the first level of contact of an individual, the family and the community with the national health system. It is possible to deal with most of the health problems of the community effectively at this level. In India, these services are provided through a network of Primary Health Centres (PHCs) and their Sub Centres (SCs) spread all over the country. The functionaries involved in dispensing these services includes multipurpose health workers, village health guides and trained birth attendants (TBAs or Dais).

Secondary level care

More complex health problems of the community are resolved at the secondary level care through the district hospitals and the Community Health Centres. The latter are upgraded Primary Health Centres, which provide a variety of specialist facilities at the Block level. The Community Health Centres also act as the *first referral level*. This implies that patients can be directed to the next level of health care facility without first going to the district level hospital.

Tertiary level care

This is the highest level of health care available to the community for dealing with their most complex health problems, which cannot be solved at the primary and secondary level. The institutions involved in providing the requisite facilities and care include Medical College Hospitals, All India Institutes, Regional Hospitals, Specialised Hospitals and other Apex Institutions. These institutions have highly specialised health personnel who dispense these services.

Figure 1.2 shows three levels of health care. First level - Primary health care includes promotive, preventive and basic curative health services, second level includes general hospital services and third level at tertiary health care includes specialised hospital services.

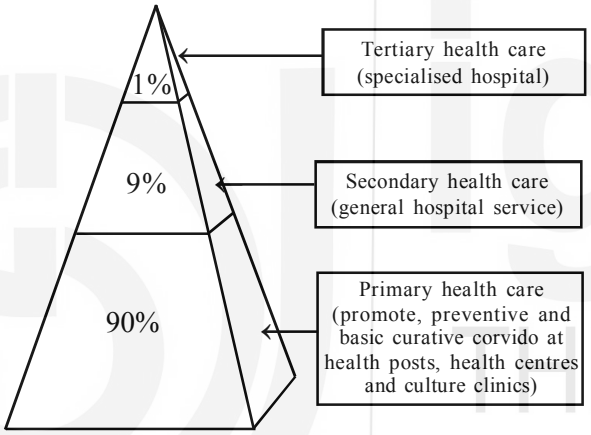

Figure 1.2: Levels of Health Care

Since, there are many people in this world, especially in the developing countries, who do not have access to adequate and quality primary health care, the concept of primary health care has received world wide attention. We will now study about the concept of primary health care and its essential components as discussed during the international conference on Primary Health Care held at Alma Ata, USSR, 1978.

1.4.3 Primary Health Care

The international conference on Primary Health Care held at Alma Ata, USSR, 1978, focused universal attention on the concept of primary health care as the most effective means of achieving an acceptable level of health for maximum number of people in the community. It has been defined as: *"Essential health care based on practical, scientifically sound and socially acceptable methods and technology made universally accessible to individuals and family 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".*

Thus, defined, primary health care becomes a practical approach to provide essential health care at affordable cost to all the members of the community with their full participation. The basic tenets of primary health care rest on equitable distribution of resources, intersectoral coordination, appropriate technology and community participation. Though all factors are responsible for successful implementation of primary health care activities, community participation is perhaps the crucial determinant of success of any developmental programme. It is the process by which individuals and families

assume responsibility for their own health and welfare and for those of the community and develop the capacity to contribute to their and the community's development. The declaration of Alma Ata conference on primary health care is highlighted in Box 3.

Box 3	Declaration of Alma Ata Conference

The declaration of Alma Ata stated that primary health care includes at least:

- Education about prevailing health problems and methods of preventing and controlling them.
- Promotion of food supply and proper nutrition.
- An adequate supply of safe water and basic sanitation.
- Maternal and child health care, including family planning.
- Prevention and control of endemic diseases.
- Appropriate treatment of common diseases and injuries, and
- Provision of essential drugs.

As you may have read in the declaration, individual countries could add on more services to this list, but this is the minimum basic health care to be provided to the population. Indian government has pledged itself to provide primary health care to its people by signing the Alma Ata Declaration.

Figure 1.3 gives essential components of primary health care and restates that the goal of primary health care is to provide comprehensive services to actual needs and priorities of the communities at an affordable price, Immunisation, adequate medical care, supply of water and adequate sanitation, educating people about the prevailing health problems, production of food, supply and proper nutrition are some of the components of primary health care as highlighted in Figure 1.3.

Figure 1.3: Essential components of primary health care

Now that we know, what health care means, it is important for us to know how health care is delivered in our country. Read the next sub-section and find out.

1.4.4 Health Care Delivery

The challenge that exists today in many countries is to reach the whole population with adequate health care services and to ensure their utilisation. Rising costs in the maintenance of large hospitals and their failure to meet the total health needs of the community have led many countries to seek alternative models of health care delivery with a view to provide health care services that are reasonably inexpensive and have the basic essentials required by the population.

Let us learn about the health system in India.

The Health System in India

The country is divided into 29 States and 7 Union Territories for the purpose of administration. These are further divided into smaller administrative units called the *districts*, which are 718 in number at present. Within the districts are many smaller demarcated units. One of them is the *community development block* of which there are above 6000 in the country. Figure 1.4 gives administrative division of India around which the health system is based.

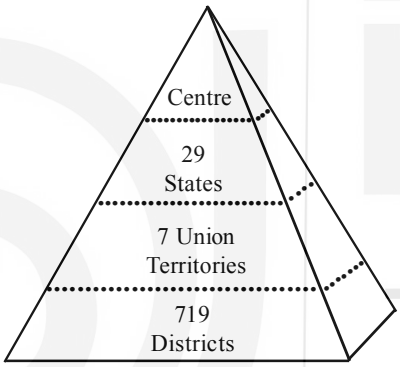

Figure 1.4: Administrative division of India

The main links in the health system comprise the Centre, State, District, Block and the Village. Since, health is a state subject in India, the states have a considerable amount of independence in the delivery of health services to their people. Thus, each state has developed its own system of health care delivery. The centre is responsible for policy making, planning, guiding, assisting, evaluating and coordinating the work of State Health Ministries. Thus, it ensures universal coverage of the country with health services.

Let us review the health system at each of the following links – Centre, State, District Block, Sub-centre and Village.

Let us start with the Centre.

A. *Health System at the Centre*

At the national or centre level the health system comprises:

Union Ministry of Health and Family Welfare

The Directorate General of Health Services

The Central Council of Health

Figure 1.5 gives the organs of health system at Central level. It shows three main organs of health system as listed above. In addition, it shows that Directorate General of Health Services has 3 Bureaus – namely Bureau of Health Planning, Central Bureau of Health Intelligence and Central Health Education Bureau.

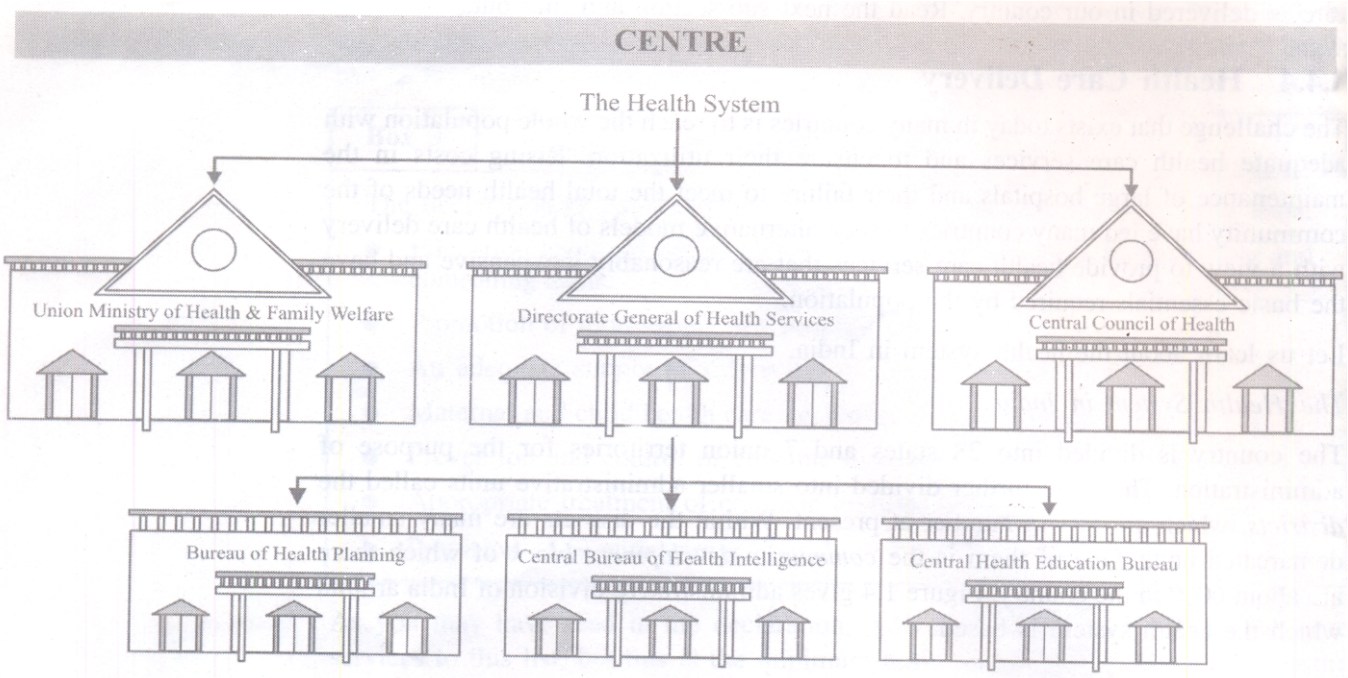

Figure 1.5: Organs of health system at central level

Let us look at each of these organs in detail, next.

Union Ministry of Health and Family Welfare is headed by a Cabinet Minister and a Minister of State, which are political appointments. The minister is assisted by the Secretary in the Department of Health and Family Welfare and the Special Secretary, Family Welfare. The functions of the Ministry include those which are mentioned in the Union List as the sole responsibility of the Centre as well as those mentioned in the Concurrent List which are the joint responsibility of both the centre and the states.

The Director General (DG) of Health Services acts as the principal advisor to the Union Government in all matters pertaining to medical and public health area. Two additional Director Generals and several Deputy Director Generals assist the DG in performing the various tasks. Further, the Directorate has three Bureaus namely – Bureau of Health Planning, Central Bureau of Health Intelligence and Central Health Education Bureau, which have specified roles.

Central Council of Health comprises all the State Health Ministers under the Chairmanship of the Union Health Minister.

Let us move on to the state level.

B. *Health System at the State Level*

Like the Centre, Minister of Health and Family Welfare is head of the Ministry and the Secretary in the Ministry is the bureaucratic head. The State Health Directorate, likewise has a Director of Health Services who is the Chief Technical Advisor to the State Government on all matters pertaining to health. All states also have a Family Planning Bureau, which is instrumental in the implementation of the Family Welfare Programme. In addition, there are many specific health programmes which come under the state health directorate. Figure 1.6 gives organisation of health services at State level. Some of the specific programmes which come under State Health Directorate are malaria, tuberculosis, leprosy, blindness control, immunisation and medical care.

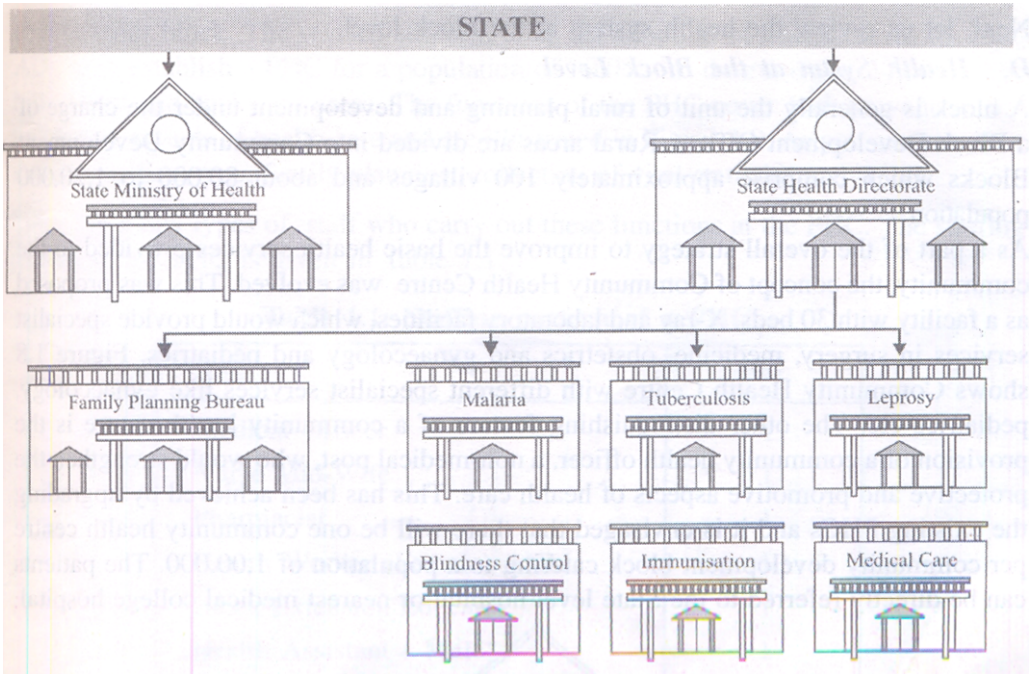

Figure 1.6: Organisation of health services at state level

Let us now move on to the district level.

C. *District Level of Health System*

There are six types of administrative areas, namely – sub divisions, *tehsils*, community development blocks, municipalities and corporations, villages and *panchayats* in a district. The subdivision and tehsils are progressive divisions of a district where the *tehsil* may comprise 200-600 villages. The rural areas are also divided into community development blocks which comprise approximately 100 villages with about 80,000 to 1,20,000 population.

Each district has an administrative head designated as a Collector. Most districts are divided into two or more sub divisions each in charge of an Assistant Collector or Sub Collector. The office of the Chief Medical Officer (CMO) of a district serves as the nerve centre to integrate all state financed health activities in the rural areas. The CMO is assisted by a Superintendent for the District Hospital, a District Health Officer, a District Family Planning Officer and others in the field of malaria, T.B., leprosy, school health etc. However, there is no uniform pattern and this may vary from state to state. Figure 1.7 gives general organisation of health services at district level and shows Collector being the head administrator.

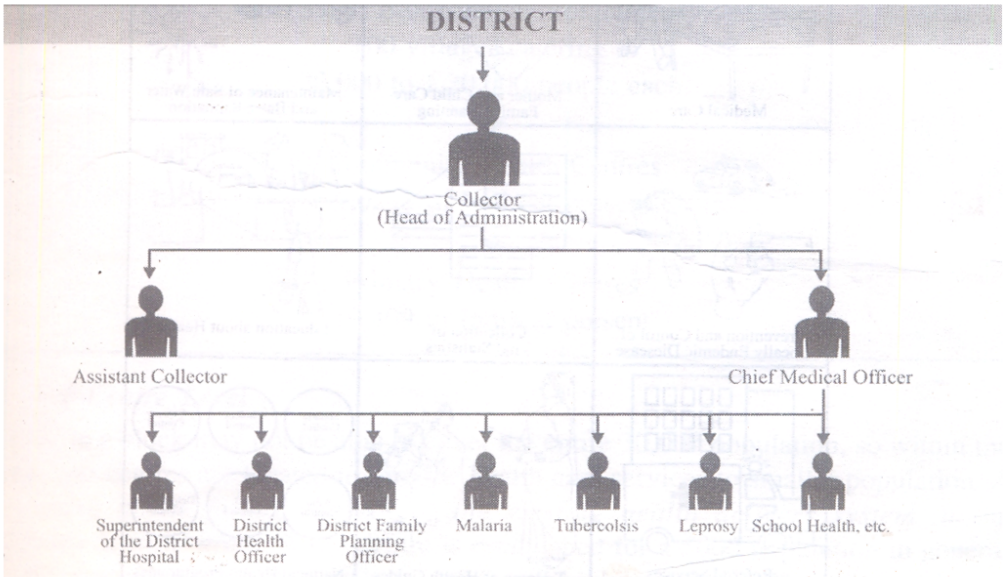

Figure 1.7: Organisation of health services at district level

Next, let us review the health system at the block level.

D. *Health System at the Block Level*

A block is generally the unit of rural planning and development under the charge of a Block Development Officer. Rural areas are divided into Community Development Blocks which comprise approximately 100 villages and about 80,000 to 1,20,000 population.

The health care infrastructure in rural areas has been developed as a three tier system including community health centre, primary health centre and sub-centre as highlighted in Figure 1.8.

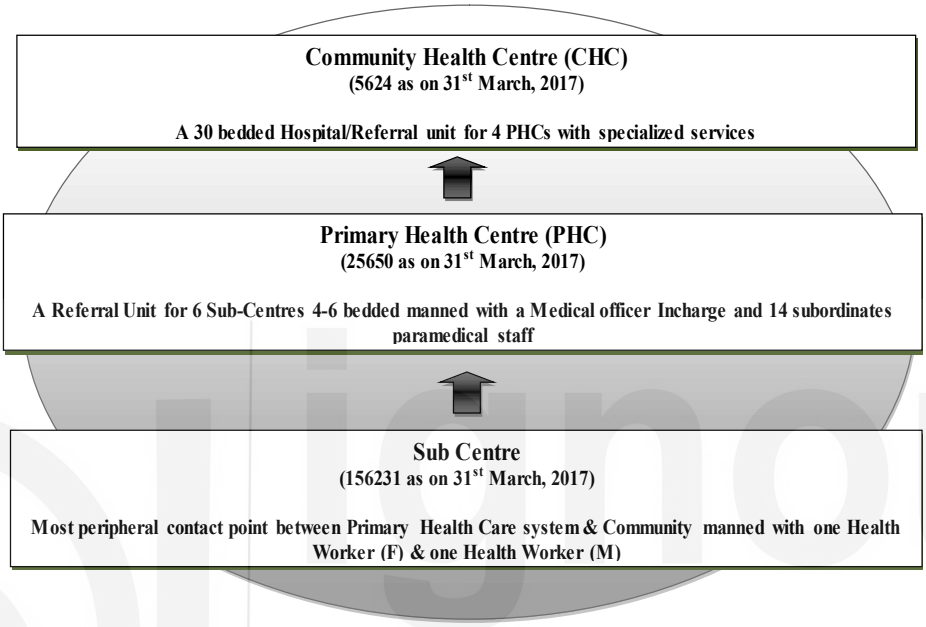

Figure 1.8: Rural Health Care System in India

Source : Rural Health Statistics, 2017. Accessed https://daa.gov.in//catalogue.rural.healthstatistics-2017 on Sept. 2018.

The above illustrated health care system is based on the population norms presented in Table 1.1.

Table 1.1: Population norms for the three health care infrastructures in rural areas

Centre	Population Norm	
	Plain Area	Hilly/Tribal/Difficult Area
Sub Centre	5000	3000
Primary Health Centre	30,000	20,000
Community Health Centre	1,20,000	80,000

Source: Rural Health Statistics, 2017.

Let us now learn about each system in detail.

Community Health Centre (CHC)

As a part of the overall strategy to improve the basic health services provided to the community concept of community health centre (CHC's) was evolved. The CHC's manned by four medical specialists i.e. surgeon, physician, gynaecologist and paediatrician supported by 21 paramedical and other staff (Figure 1.9). It has 30 indoor beds with one operation theatre, X-ray, labour room and laboratory

facilities. It serves as referral centre for 4 PHC's and also provide facilities for obstetric care and specialist consultations.

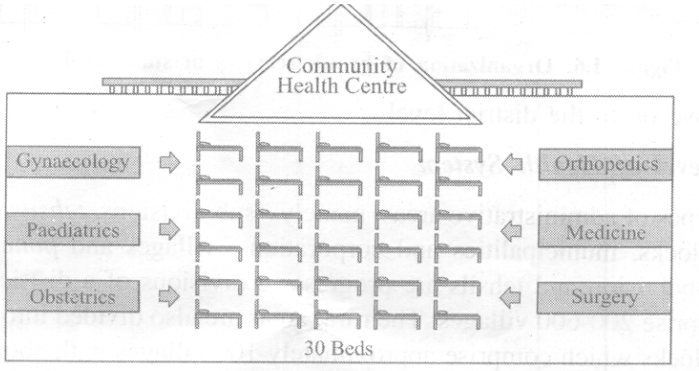

Figure 1.9: Community Health Centre

Primary Health Centre (PHC)

PHC is the first contact point between village community and the medical officer. As per minimum requirement a PHC is to be manned by a medical officer supported by 14 paramedical and other staff. Under National Rural Health Mission (NRHM), there is a provision for two additional staff nurses at PHC's on contract basis. It act as the referral unit for 6 Sub-centres and has four to six beds for patients. The activities of PHC involve curative, preventive, promotive and family welfare service as illustrated in Figure 1.10. As you can see, they include medical care, family planning, collection of vital statistics and so on.

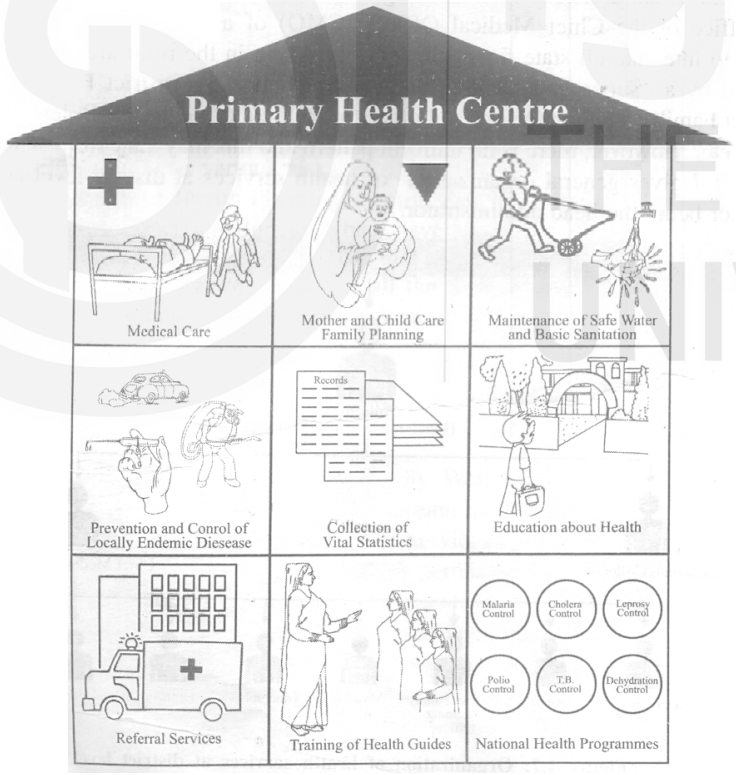

Figure 1.10: Functions of primary health centre

Sub-Centre Level

A PHC in a block may not be able to cover the entire 30,000 population, so within the block, sub-centres are located to provide health care services to smaller population. A sub-centre is *the formal outpost of the existing health delivery system at the periphery in rural areas*. A sub-centre is established for a 5000 population in general and for a population of 3000 in hilly, tribal and backward areas. There is a male and

female multipurpose health worker posted at each sub-centre. The services provided at present include mother and child health care, family planning and immunization. It is proposed to enlarge these to include facilities for intrauterine devices insertions and simple laboratory investigations like routine examination of urine for sugar and albumin.

Let us move to the last level which is at the grass root level i.e. village level.

E. *Health System at the Village Level*

There are three functionaries at the village level who are responsible for taking care of the health needs of the community. These are: 1) Village health guide, 2) Local dais, and 3) Anganwadi workers. Let us find out who they are and what they do.

1) *Village Health Guide*

This scheme was launched on October 2, 1977 as a part of the Rural Health Scheme. The Village Health Guide is not a government functionary, but a volunteer chosen from the community, preferably a woman, who serves as a link between the community and the formal health system. She is trained in primary health care at a suitable place and is expected to do community health work for 2-3 hours daily in the spare time for honorarium of Rs. 500 per month. The Village Health Guide is capable of taking care of simple medical ailments and first aid and mother and child health including family welfare, health education and sanitation. Figure 1.11 shows village health guides taking care of a person.

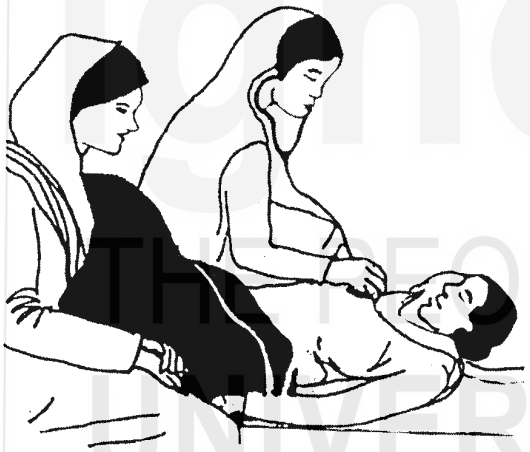

Figure 1.11: Village health guide

2) *Local Dais*

Under the rural health scheme, an extensive training programme has been undertaken by the government to train all traditional birth attendants (TBAs/Dais) in the country to improve their knowledge and skills relating to maternal and child health. Thus, every village should have an access to the service of a trained birth attendant. This will ensure that home deliveries, which are still a norm in the rural areas, will be performed under safe and hygienic conditions which will reduce maternal and infant mortality.

3) *Anganwadi Worker*

Under the ICDS scheme, there is an anganwadi worker for a population of 1000. She is also an honorary part time worker selected from the community who is responsible for a package of services delivered at the anganwadi. These include supplementary nutrition, health check ups, immunization, non-formal preschool education, nutrition and health education and referral services. The beneficiaries include children below 6 years, pregnant and nursing mothers and women in the age group of 15-45 years. Along with the Village Health Guide, she constitutes the major link of the community with the health services.

Figure 1.12 shows Health service delivery system in India. It shows linkages between various functionaries and health institutions at various levels within the state.

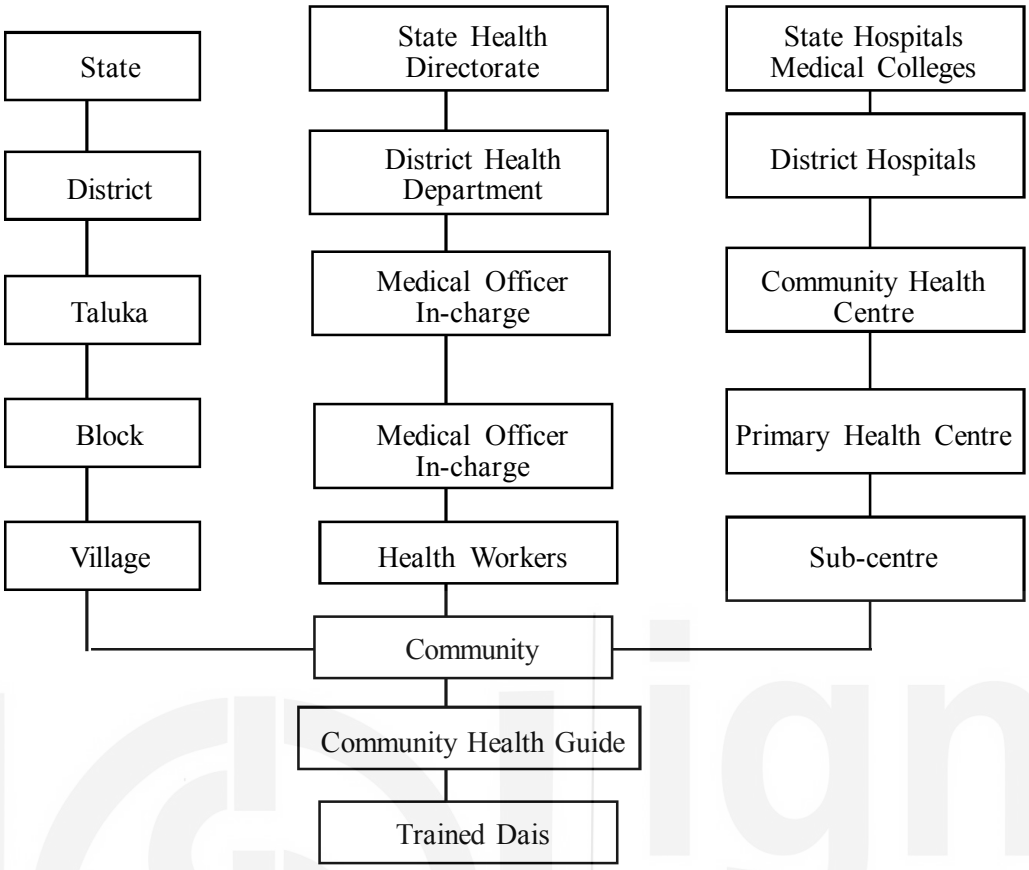

Figure 1.12: Health service delivery system in India

We can conclude that government of India tries to ensure universal coverage of health services for all with special focus on vulnerable population.

We have learnt about the concept and scope of public nutrition and we also learnt about health care and its delivery system in India. You might be wondering about the role of public nutritionist in health care delivery. We will find out about it in the next section.

1.5 ROLE OF PUBLIC NUTRITIONIST IN HEALTH CARE DELIVERY

It is clearly evident from the foregoing discussion that nutrition is an important, though not the only, determinant of health of an individual. The root cause of many health problems of the community can be traced to faulty nutrition. It could be a *lack, excess* or an *imbalance* of certain nutrients in the diet, which compromises the nutritional status leading to health problems. Hence, nutrition can be viewed as a subset of the health. Since, attainment of health for all is a universal goal of all nations and communities, public nutrition has to be an integral part of any strategy designed to achieve this goal. As signatory to the Alma Ata declaration, primary health care becomes the major approach to achieve an acceptable level of health for maximum number of people in the community. It has already been stated that the promotion of food supply and proper nutrition is one of the eight basic essential services included in the primary health care. Thus, we can conclude that public nutrition is an essential component of health and health care.

The continuing changes in the health scenario of nations across the world present varied and newer challenges to the public nutrition professional who is intimately involved with providing nutrition support in all health care activities. The shift in accent

on health promotion from the earlier one primarily on prevention and cure has added more responsibilities to all those engaged in health care of the community. Today, much of the ill health is related to lifestyle and environmental factors whereas a lot of the illness could be attributed to the causation of germs when the first movement for public health began. Though the latter has been contained in the developed and less successfully in the developing nations, the former situation continues to be of concern in the public health arena. The public nutritionist equipped with the knowledge of food, nutrition and health is eminently suited to participate in all the strategies of health promotion required to combat this situation. In the Indian context, where undernutrition is extensively present in the preschool children and pregnant and nursing mothers on the one hand and the threat from lifestyle related health diseases like obesity and degenerative heart diseases show alarming trends on the other, the role of public nutritionist assumes tremendous importance along with responsibility. A public nutritionist can perform the following:

In the hospital-based set up, she is a part of the team delivering therapeutic and rehabilitative services to the patient. She is responsible for food service management, nutritional care of the patients including diet counselling and imparting nutrition education to various categories of medical personnel. The Directorate General of Health Services has recommended the appointment of at least an assistant dietitian for every 100 bed hospital with progressive increase in their numbers as the hospital beds increase.

There is a role for the public nutritionist in the national health set up at the centre as the Nutrition Advisor and Research Officer. At the State level, they can function as the State Nutrition Officers.

The public nutritionist can make a significant contribution in all the programmes of development undertaken by voluntary, non-government organizations.

At the international level organizations like WHO, FAO and UNICEF provide opportunities for public nutritionists at the policy making, planning and implementation stages.

From the discussions above, you must have realized that public nutritionist can perform wide variety of functions ranging from health promotion, curative services to advocacy and programme planning. So are you ready to take on this role! This course in Public Nutrition will equip you with the necessary knowledge and skills to function as effective public nutritionist.

Check Your Progress Exercise 2

1. Explain the concept of health care and the three different levels at which it is available to the community.

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2. List the essential components of primary health care.

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3. What are the health facilities available at the following:

   i) Sub-centre

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   ii) Village level

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4. Summarize the activities performed at the PHC level.

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5. Define the role of the public nutritionist in health care delivery.

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1.6 LET US SUM UP

We learnt in this unit that public nutrition is concerned with improving nutrition in populations in both poor and industrialized countries, linking with community and public health nutrition and complementary disciplines. The challenge that exists today in many countries is to reach the whole population with adequate health care services and to ensure their utilization. We also saw that rising costs in the maintenance of large hospitals and their failure to meet the total health needs of the community have led many countries to seek alternative models of health care delivery with a view to provide health care services that are reasonably inexpensive and have the basic essentials required by the population.

Next, we learnt that primary health care is a comprehensive and alternative approach to the delivery of health services to the community, in such a way that it is more Economical and effective with full involvement of local communities. The main links in the health system comprises the centre, state, district, block and the village.

The continuing changes in the health scenario of nations across the world present varied and newer challenges to the public nutrition professional who is intimately involved with providing nutrition support in all health care activities.

The public nutritionist equipped with the knowledge of food, nutrition and health is appropriately suited to participate in all the strategies of health promotion required to combat this situation. Finally, we saw that in the Indian context, where undernutrition is extensively present in the preschool children, pregnant and nursing mothers on the one hand and the threat from lifestyle related health diseases like obesity and degenerative heart diseases show alarming trends on the other, the role of public nutritionist assumes tremendous importance along with responsibility.

1.7 GLOSSARY

Curative services : the services provided to a person which would enable him to lead a socially and economically productive life.

Epidemiology : study of diseases or conditions in population.

Health care delivery system : the health care services provided to the community. It could be governmental or non governmental.

Health guide : a volunteer from the community itself, given orientation training in health to act as a community level worker.

Promotive services : the services provided to the members of the community to promote health and healthy habits.

Referral services : the services available at the next higher level of health institutions.

1.8 ANSWERS TO CHECK YOUR PROGRESS EXERCISES

Check Your Progress Exercise 1

1. Public nutrition is concerned with improving nutrition in populations in both poor and industrialized countries, linking with community and public health nutrition and complementary disciplines. It has a distinct identity, incorporating the relevant aspects of the variety of disciplines that bear on the nutrition problem, as well as incorporating scientific advances in the understanding of nutritional problems.

2. Public nutrition encompasses a range of factors known to influence nutrition in populations, including diet and health; social, cultural, and behavioural factors; and the economic and political context. Public nutrition would focus on problem-solving in a real-world setting, making it, by definition, an applied field of study whose success is measured in terms of effectiveness in improving nutritional conditions. More recent approaches have been based on the assumption that incorporating nutrition concerns into a wide variety of disciplines, as they are translated into action, will solve nutrition problems.

Check Your Progress Exercise 2

1. Health care involves much more than just medical care and can be defined as "multitude of services provided to individuals or communities by agents of health services or professions, for the purpose of promoting, maintaining, monitoring or restoring health." It is customary to describe health care services at three levels viz. primary, secondary and tertiary.

   Primary care level is the first level of contact of an individual, the family and the community with the national health system. The functionaries involved in dispensing these services include the multipurpose health workers, village health guides and trained birth attendants *(dais)*.

   Secondary level care takes care of more complex health problems of the community through the district hospitals and the Community Health Centres. The Community Health Centres also act as the first referral level.

   Tertiary level care is the highest level of health care available to the community for dealing with their most complex health problems, which cannot be solved at the primary and secondary level. The institutions involved in providing the requisite facilities and care include Medical College Hospitals, All India Institutes, Regional Hospitals, Specialized Hospitals and other Apex Institutions.

2. The essential components of primary health care include:

   Education about prevailing health problems and methods of preventing and controlling them.

   Promotion of food supply and proper nutrition.

   An adequate supply of safe water and basic sanitation.

   Maternal and child health care, including family planning.

   Prevention and control of endemic diseases.

   Appropriate treatment of common diseases and injuries, and

   Provision of essential drugs.

3. The health facilities available at the sub-centre and village level are:

   Sub-centre : Treatment of minor ailments, First aid for accidents and emergencies, health education activities, chlorination of water resources, immunization and family planning services

   Village level : Treatment of minor ailments, MCH and family planning, Environmental sanitation

4. The activities performed at the PHC level include curative services, preventive and promotive aspects of health care, Organization of training programmes, continued education activities for the sub centre staff and health functionaries at the village level, and referral services.

5. A public nutritionist in health care delivery can perform the following roles:

   In the hospital-based set up she is a part of the team delivering therapeutic and rehabilitative services to the patient. She is responsible for food service management, nutritional care of the patients including diet counselling and imparting nutrition education to various categories of medical personnel.

   There is a role for the public nutritionist in the national health set up at the centre as the Nutrition Advisor and Research Officer. At the State level, they can function as the State Nutrition Officers.

   The public nutritionist can make a significant contribution in all the programmes of development undertaken by voluntary and non-government organizations.