NOUN

NATIONAL OPEN UNIVERSITY OF NIGERIA

HEALTH ECONOMICS

ECO 449

FACULTY OF SOCIAL SCIENCES

COURSE GUIDE

Course Developer:
Dr. T. M. Akande
University of Ilorin

Course Reviewer
Dr. S. O. Olayiwola
Department of Economics
Federal University of Technology, Akure, Nigeria

National Open University of Nigeria,
Headquarters,
University Village,
Plot 91, Cadastral Zone,
Nnamdi Azikiwe Expressway,
Jabi, Abuja.

Lagos Office
14/16 Ahmadu Bello Way,
Victoria Island, Lagos.

e-mail: centralinfo@nou.edu.ng
URL: www.nou.edu.ng

Printed: 2023

ISBN:

Course Guide

Course Information

Course Code: ECO 449
Course Title: Health Economics
Course Unit: 1
Course Status: Compulsory
Course Blub:
Semester: First Semester
Course Duration: Fifteen Lecture Weeks
Required Hours for Study**:** Two Hours for each unit

Course Team

Course Developer: NOUN
Course Writer:
Content Editor:
Instructional Designer:
Learning Technologists:
Copy Editor

INTRODUCTION

Welcome to ECO 449: HEALTH ECONOMICS

ECO 449: Health Economics is a two-credit and one-semester course. The course is made up of fifteen units spread across eight lectures weeks. This course guide provides details of introductory issues involved in health economics and provides information for those who are new to health economics. It gives details about the course materials and how to work through it. It also suggests general guidelines on the time required to achieve each unit aims and objectives. Answers to tutor marked assignments (TMAs) are provided within the contents of the material.

Course Competences

This course is an introduction to health economics. It is an analysis of the application of economics tools of analysis to the health sector and health issues. The topics covered include Health and Development, Health Care Financing, and Economic Evaluation of Health Care Programme.

Course Objectives

To achieve the aims of this course, there are overall and set out objectives which the course is set to achieve for each unit. The unit objectives are included at the beginning of a unit; you should read them before working through the unit. You may want to refer to them during your study of the unit to check on your progress. You should always look at the unit objectives after completing a unit. This is to assist the students in accomplishing the tasks entailed in this course. In this way, you can be sure you have done what was required of you by the unit. The objectives serve as study guides, such that student could know if he is able to comprehend the knowledge of each unit through the sets of objectives in each one. At the end of the course period, the students are expected to:

- understand health as one of the social services sectors with economic implication.
- understand the specific nature of the health care service in implementing economic principles and techniques.
- know the implications of economic development to the health services.
- understand the effect of some economic factors on health status of society.
- identify the ways through which improvement of the health system can create conducive conditions for sustainable economic development and vice versa.
- be introduced to the possibilities of using cost benefit analysis and cost effectiveness analysis in assessing the performance of health care activities.
- outline the methods needed for costing in an economic evaluation and to give examples of costing methods and cost data types.
- identify the factors that influences the choice of a financing system.
- explore the different sources of financing the health service sector.
- pattern in health and the extent to which it can stimulate the performance of the sector.

Working through the Course

To successfully complete this course, you are required to read the study units, referenced books and other materials on the course. Each unit contains self-assessment exercises called Student Assessment Exercises (SAE). At some points in the course, you will be required to submit assignments for assessment purposes. At the end of the course there is a final examination. This course should take about 15 weeks to complete and some components of the course are outlined under the course material subsection.

Study Units
There are 15 units in this course which should be studied cautiously and meticulously.

Module 1 Introduction
Unit 1 Introduction to Health Economics
Unit 2 The Role of Economics in Health Care
Unit 3 Demand and Supply in Health care
Unit 4 The Organisation of Health Services

Module 2 Health and Development
Unit 1 Health Care and Health
Unit 2 Health and Poverty
Unit 3 Health and Growth

Module 3 Health Care Financing
Unit 1 Health Financing
Unit 2 Health Insurance
Unit 3 Health Care Financing in Nigeria
Unit 4 National Health Insurance Scheme in Nigeria

Module 4 Economic Evaluation of Health Programme
Unit 1 Budgeting
Unit 2 Cost of Health Care
Unit 3 Cost Containment in Health Care
Unit 4 Methods of Economic Evaluation of Health Programme

Each study unit will take at least two hours, and it includes the introduction, objectives, main content, self-assessment exercise, conclusion, summary and references. Other areas are the Tutor-Marked Assessment (TMA) questions. Some of the self-assessment exercises requires discussion and brainstorming with your colleagues. You are advised to do so to understand issues in the health economics.

There are other resources including online resources for further reading. They are meant to give you additional information, hence you need to source for them. You are required to study

the materials; practice the self-assessment exercise and tutor-marked assignment (TMA) questions for an in-depth understanding of the course.

References and Further Readings

Recommended books and e-books for this course can be downloaded online as specified for reference and further Reading. There may be recent editions of some of the recommended textbooks and you are advised to consult the newer editions for further reading.

Culyer J.A. & J.P. Newhouse (2000) Eds, Handbook of Health Economics: Vols 1A & 1B, Elsivier, North-Holland.

Donaldson Cam and Karen Gerard (1993) Economics of Health Care Financing: The Visible Hand. Macmillan Press Ltd. London.

Folland S., A. Goodman & M. Stano (2010) The Economics of Health & Health Care, Sixth Edition, Prentice Hall, New Jersey.

Jacobs, P. (1991) The Economics of Health and Medical Care Maryland: Aspen Pub Inc.

Jack, Williams (1964) Principles of Health Economics for Developing Countries. WBI Development Studies. The World Bank, Washington D. C.

Jones Andrew (2007) Applied Econometrics for Health Economists: A Practical Guide, 2nd Edition OHE

McConnell C.R., Brue S. (1999). Microeconomics: Principles, Problems, and Policies. 14th Edition. Irwin McGraw-Hill, USA.

Phelps Charles E. (1992) Health Economics, New York: Harper Collins Pub Inc.

Santerre E. & S.P. Neun (1996) Health Economics: Theories, Insights & Industry Studies, Irwin, Chicago.

Schiller B.R. (2003) The economy today. 9th Edition. McGraw-Hill/Irwin Companies, New York.

Sophie Witter, Tim Ensor, Matthew Jowett and Robin Thompson (2000) Health Economics for Developing Countries: A Practical Guide. Royal Tropical Ins, Amsterdam, KIT.

Tomey A.M. (2003). Guide to Nursing Management and Leadership. 6th edition. Elsevier Science (Singapore) PTE Ltd, Singapore

World Bank (1994) Development in Practice. Better Health in Africa: Experience and Lessons Learned. The World Bank. USA 1994.

Zweifel P., F. Breyer & M. Kifmann (2009) Health Economics, Second Edition, Springer Verlag, Heidelberg.

Presentation Schedule

The presentation schedule in the course material provides you with the dates for the completion and submission of your TMAs and attending of tutorials. You should remember to submit all assignments at the appropriate date and time. You should also work as scheduled and endeavour to submit your assignment at the appropriate time.

Assessment

The course will be assessed using two formats: Tutor-marked assignments as well as a written examination. The assignments submitted to your tutor for assessment will count for 30% of your total course mark while the final written examination will count for the remaining 70% of your total course mark.

How to Get the Most from this Course

The study units in distance learning replace the conventional university lectures. Distance learning affords you an advantage of reading and working through designed study materials. It allows you to study at your own pace, time and places that suites you. Accordingly, you would have to read the lectures instead of listening to a lecturer. The study units provide you with readings on the units as well as exercises to do at the end of each unit like a lecturer will give you some readings and assignments to do. It also consists instructions on when to read each unit in the course material and when to do your assignments.

In each unit, there are set of learning objectives provided to assist you to know what you should be able to do or what you should know from each unit. These objectives should be your study guide such that at the end of completing each unit, you should check whether you have achieved the set objectives. This will increase your chance of passing the course. The main body of a unit will guide you through the reading from other sources such as your textbook or course guide. Genuine plan of working through the course is to phone or email your tutor if you have any trouble with any unit or need any assistance. Furthermore, carefully follow the following advice:

1. Read the course guide thoroughly and with necessary care.
2. Arrange a study strategy using the Course Overview in the Course Guide. The expected time to spend on each unit and the assignment related to it should be noted. You can as well write out your own dates for working on each unit according to your study plan.
3. Draw-up a study plan and stick to it. If you have any difficulty in your study plan, inform your tutor. Student failed because they are lagging behind in their course work.
4. Read each unit carefully including their introduction and the objectives.
5. Information about requirements on each unit is given at the beginning of each unit.

6. The contents of each unit are presented in such a way that it provides you with a sequential order to follow. Therefore, use each unit to guide your readings. You may be required to read sections from more than one references beside the Course Material.
7. Always review the objectives of each unit to know if you have achieved them or not. If you are uncertain of your understanding of the issues addressed in any unit after reviewing the objectives, consult your tutor.
8. You can move to the next unit when you are pleased with the previous unit.
9. After submission of an assignment, do not wait for your marks before you proceed to the next unit in order to keep to your study plan. Contact your tutor as soon as possible for any question, clarification or observation.
10. Any new information about the course will be communicated at your study centre.
11. Prepare for the final examination after completing the whole units of the course.

Online Facilitation and Tutorials

There are some hours of tutorials (2-hours sessions) provided in support of this course. You will be notified of the dates, times and location of these tutorials. Together with the name and phone number of your tutor, as soon as you are allocated a tutorial group.

Your tutor will mark and comment on your assignments, monitor your progress and provide assistance to you during the course. You must mail your tutor-marked assignments to your tutor well before the due date (at least two working days are required). They will be marked by your tutor and returned to you as soon as possible. Do not hesitate to contact your tutor by telephone, or e-mail if you need help.

Module 1: INTRODUCTION

This Module introduces you to the concepts of economics applicable to the health sector and the basic concepts of health economics. The units will guide you in understanding the basic concepts of health economics and the role of economics in health care.

Unit 1: Introduction to Health Economics

Unit 2: The Role of Economics in Health Care

Unit 3: Demand and Supply in Health Care

Unit 4: The Organisation of Health Services

Unit 1: Introduction to Health Economics

Contents

1.1 Introduction

This unit defines health economics and look at certain basic concepts for the understanding health economics. Before now little attention is placed on health economics in developing countries. As a result of scarcity, health economics is now taking a center stage in health management. Your sound knowledge of health economics will assist you to understand the dynamics of health care in terms of institutional policies, implementation and how best results can be achieved given the available

resources. Inefficiency in using resources available for health care has affected coverage and quality of health care delivery in developing countries. There is a need to understand that for any nation to develop, its citizens must be productive and they can be productive only when they are healthy.

1.2. Learning Outcomes

On completing this unit, you will be able to:

- Define and understand what is meant by health economics and its importance
- Understand the basic concepts in health economics
- Know how economy affects health and vice versa
- Understand demand and supply concepts in health care

1.3. Basic Concepts in Economics and Definition of Health Economics

There are several definitions of Economics, some of the definitions include:

- Study of how we use scarce resources to produce goods and services to satisfy our wants.
- Social science concerned with the efficient use of limited or scarce resources to achieve maximum satisfaction of human material wants
- The study of how best to allocate scarce resources among competing ones

These definitions are similar and related to each other, each has its own special terms and meaning. It is necessary to know the basic concepts in economics to have an understanding of health economics. These basic concepts include; goods, scarcity, opportunity cost, rational choice, economic resources, utility, demand and supply.

Goods are the produced tangible objects that are capable of satisfying human wants. Goods like cars, clothes, food, cookers can be regarded as goods and health can also be considered an economic good.

Services are intangible actions that are capable of satisfying human wants – these include water supply, health care, waste disposal, etc. Services satisfy our wants as much as goods do. Goods such as suction machine are used to provide services.

Scarcity is a situation in which it is impossible to satisfy all human wants for goods and services and this forms the central concept in economics. Scarcity occurs when we cannot have every good or service we need due to limited resources. Because we cannot have all we wants, we need to make choices that can give us maximum utility. For example, people who are economically disadvantaged may have to choose between going for health care and using the available money to pay school fees or house rent. Scarcity exists at individual, institutional, community and government levels.

Opportunity Cost is the value of the second best choice that is given up when a first choice is made. Every choice one makes is a trade-off between the benefits and costs of one's decision. Usually one will want to make a choice that will result in the smallest opportunity cost and the greatest possible benefit. If this occurs, then one has made a **rational choice**. If a person chose to use little money available to him to buy prescribed drugs for his child as against the other choice of buying alcoholic drink, that choice can be considered rational. Rational behaviour means that different people will make different choices because their preferences, circumstances, and available information differ. Rational decisions may change as circumstances change. Imagine how culture makes people spend their money on ceremonies rather than spending such money to take care of themselves to live well.

Utility is the benefit or satisfaction consumers get from the consumption of goods and services. It helps to determine how much the consumer is willing to pay. Marginal utility is the additional utility gained by consuming one more unit.

Economic resources are all natural, human, and manufactured resources which go into the production of goods and services. It is broadly divided into two:

(i) Property resources include land (natural resources) or raw materials and capital.
(ii) Human resources include labour and entrepreneurial ability.

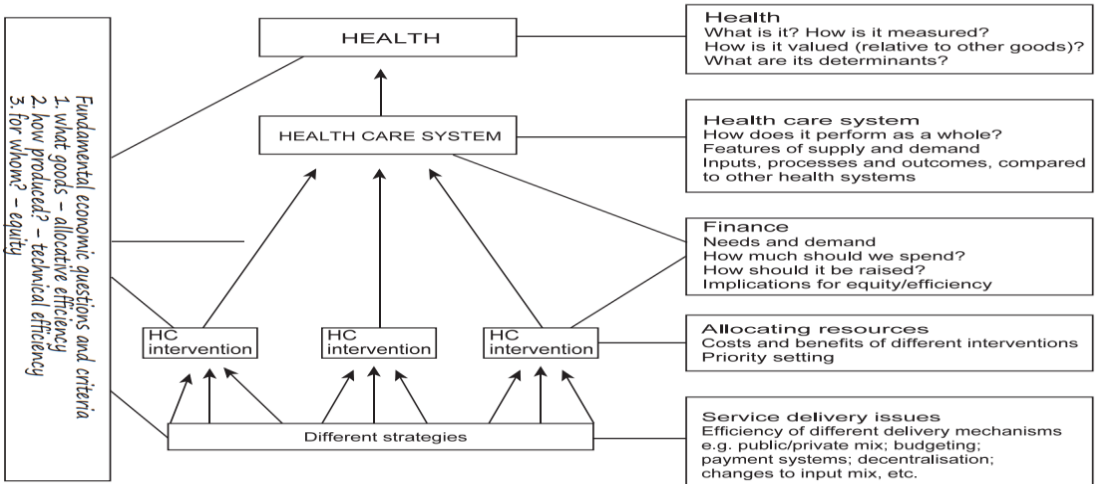
Definition of Health Economics

People fall ill, and resources are used to make them better. This is the area that health economics is concerned with: the connection between health and the resources which are consumed in promoting it. Resources here means not just money, but also people, materials, and time which could have been put to some other use. The underlying problem is that people have unlimited wants – not just for health, but also for food, shelter, entertainment, and other types of consumption –

but limited resources with which to satisfy them. Therefore choices have to be made, as individuals and as groups, about which needs are most important and how to use available resources. Health economics attempts to explained those choices. Thus, what are the kinds of questions that health economics attempt to answer? They can be grouped into a number of different areas. Starting with examples of the most general:

i. What is health? How (how much) should we invest in it?
ii. How do we define and measure health?
iii. How much value do people set on it?
iv. What are the different channels for producing health, within and outside the health sector?
v. How do we make overall allocations of resources?
vi. What criteria do we use to guide us?

This sounds theoretical and much of the work around it is academic. However, there is a practical point, which is that health economists are involved in setting overall allocations.



Therefore, health economics is the application of the theories, concepts, and techniques of economics to the health sector. It is concerned with issues like allocation of resources within the various health care strategies, quantity and quality of resources used in health care delivery, funding of health care services, efficiency in use resources allocated for health care and the effects of preventive, curative, and rehabilitative health services on individuals and the society.

Self-Assessment Exercises 1

1. Explain the following terms with examples: Goods, Services, Scarcity and opportunity cost. Understand these terms in your own words and see how you apply them daily in your environment.

1.4 Importance of Health Economics

Remember that economics was defined as the study of the use of scarce resources. Resources in the health sector like other sectors are not enough to satisfy man's health wants. The main function of health economics is to apply economic theory to practical problems of rationing the use of resources for effective health care services in response to peoples health needs and demand.

There is a global increase attention on health economics due to the renewed cost-consciousness within the health system and the shift from exclusively humanistic approach to one incorporating an increasing use of managerial techniques and quantitative research methods. Countries all over the world are faced with increased burden of health care and pubic fund available to the health sector are often short of what is required.

Resources required for health services and needs constitute a significant proportion of family, community and government expenditures. This situation is a common feature in developing countries. Costs of medical care is increasing due to heavy disease burden, technological changes and increasing cost of required inputs for health care. In view of the problem of scarcity, health economics has become an important branch of economics which need good understanding. Countries need healthy citizens to develop. As a person you will remember how unproductive you were when you were ill.

1.5. Health as Economic Good and Medical Economics

Health can be seen as an economic good or service. Health is both a consumption good and an investment good. The nature of health is such that it can be seen as a collective good. **Collective goods** (or social goods) are defined as the public goods that could be delivered as private goods, but are usually delivered by the government for various reasons, including social policy, and financed from public funds like taxes.

Medical Economics

Medical economics is the branch of economics concerned with the application of economic theory to phenomena or problem associated with cost-benefit analysis of pharmaceutical products and cost-effectiveness of various medical treatments. Medical economics often use mathematical models to synthesize data from bio-statistics and epidemiology for support of medical decision making, both for individuals and for the wider health policy.

1.6. The Economy, Globalization and Health

Health plays a major role in the socioeconomic development of a people. Health can no longer be seen as a bye-product of development but rather a precondition for economic development. The health sector is one of the components of the economic system; every sector of the economy has a bearing with the health sector and can not be underestimated for socioeconomic development.

Economic development requires a healthy workforce. An unhealthy workforce will lead to a low productivity. Improvement in health status of a country represents both gains in welfare and an investment on the countries future growth. Healthy people are more productive, perform better in learning and can work to earn income. Unhealthy people will be less productive to earn high income. A nation with large number of unhealthy people will spend more money on health care and have little for other activities. Poor health therefore lowers prospects of development for a nation.

Economic development is also followed by changes in production which have positive impact on the health of the population, albeit economic development does have negative impact on health too. Certain diseases like cardiovascular diseases and cancers are commoner in well developed countries than in the less developed countries mainly because of change in lifestyle resulting from economic development. For example consumption pattern changes with economic development. Obesity is usually a significant public health problem of developed countries whereas malnutrition is a problem of underdeveloped countries. Generally economic development has more positive than negative effect on the health of people. Economic development makes more money available to the health sector for provision of services.

Health issues are higher on the international agenda than before. Concern for the health of poor people is a central development issue. In addition to its intrinsic value on individuals, investment in health is an important and previously underestimated means of economic development. Improved health outcomes are a prerequisite for developing countries to break out of the cycle of poverty.

Globalization and Health

Globalization is reshaping the social geography within which humanity strives to create health or prevent disease. The determinants of health and disease – e.g. SARS virus, HIV/AIDS etc. are affected by increasing global mobility. You often here people say the world is a global village. What happens in one country readily have effect on other countries.

Impact of Globalization on Health

Driven by economic liberalization and changing technologies, the phenomena of 'access' is likely to dominate the unfolding experience of human disease and well-being. The extent to which individual countries engaged the process of globalization on their own terms differs widely from country to country. Child mortality, for example, changes quickly in response to subtle changes in purchasing power in impoverished communities. In affluent communities, a small change in income has little effect on utility in either direction. The long term effect of globalization on well-being is different for populations who are dependent on fragile local economics. A significant change in the price of some goods in some of the developed countries or even policy shift may have effect on another country which may affect the health of its people.

Globalization has brought about high movement of people from one country to the other mainly due to economic activities. With these movements are some diseases that easily get across borders of countries. Globalization has both positive and negative externalities on countries of the world.

Self-Assessment Exercises 3

1. List 4 ways health can affect economy and economy can affect health
2. What are the main issues of the health and the economy on the global agenda
3. Discuss positive and negative externalities of globalization on health.

1.7. Summary

Health economics is an important discipline that is gaining much attention in developing countries due to the growing health burden, need for higher health expenditures given inadequate fund. Citizens must be healthy to be more productive. Development also result in more money made available for health care. Economic development can however have negative effects on health resulting from changes in lifestyle that are detrimental to health.

In this unit you have gone through some basic concepts in economics, health economics and the definition of health economics. To develop every country need to have healthy citizens. The relationships between economy and health were described in this unit. Poor countries go though the cycle of poverty and poor health since they have little resources for health care, its citizens remain unhealthy and therefore unproductive.

1.8. References/Further Readings/Web Resources

Culyer A.J. (1989) A Glossary of the more common terms encountered in health economics" in MS Hersh-Cochran and KP Cochran (eds) Compendium of English Language Course Syllabi and Textbooks in Health Economics, Copenhagen, WHO, 215-234.

Tomey A.M. (2003). Guide to Nursing Management and Leadership. 6th edition. Elsevier Science (Singaphore) PTE Ltd, Singapore

Le Grand, J., Propper, C. and Robinson, R. (1992). Social objectives, allocation of resources, in The Economics of Social Problems. Basingstoke:Macmillan.

1.9 Possible Answers to SAEs

Answers to SAEs 3

1. Economic development requires a healthy workforce. An unhealthy workforce will lead to a low productivity

2. Economic development is followed by changes in production which have positive impact on the health of the population, albeit economic development does have negative impact on health too. Certain diseases like cardiovascular diseases and cancers are common in well developed countries than in the less developed countries because of change in lifestyle resulting from economic development

3. Concern for the health of poor people is now a central development issue.

4. In addition to its intrinsic value on individuals, investment in health is an important and previously underestimated means of economic development. Improved health outcomes are a prerequisite for developing countries to break out of the cycle of poverty.

UNIT 2 THE ROLE OF ECONOMICS IN HEALTH CARE

Unit Structure

2.1 Introduction

Economists in all sectors are concerned with the allocation of resources between competing demands. Demands are assumed to be infinite – there is no end to consumption aspirations. Resources like labour, raw materials, production equipment and land are always finite. Thus scarcity of resources becomes the fundamental problem to which economists address themselves. In the health sector, such scarcity can be recognised in a host of questions that concern all who work there or use its services. Why has the volume of resources absorbed by the sector increased so fast over the last four decades worldwide? Why does it seem that no matter how many nurses and doctors are employed, new technologies adopted, new drug therapies introduced, that even the rich countries of the world are not able to provide the highest quality of
care for all citizens? Why do economists work in health? The health sector is not the first place people associate with economists. In principle economists are concerned with better choices and in making the best use of existing resources and growth in the availability of resources. As economists started to work on problems in the health sector, the new discipline of health economics emerged. Many of the concerns in health economics are also those of other health scientists – how can we improve survival, quality of life and fairness in access to services?

However, economics brings a different framework that offers important and useful insights for analysing such questions. Therefore, understanding the modern economy requires an appreciation of the special economics of healthcare.

2.2. Learning Outcomes

By the end of this unit, you will:

- Know the economics of healthcare
- Understand economic problems in the health sector
- Understand the special characteristics of the health care sector

2.3 Economic Problems in the Health Care Sector

The problems in the health care sector will allow you to get much around in economic theory. Below are some of the relevant areas:

(i) Consumer substitution is one of the topics taught in economics – commodities compete with each other for the consumer‘s budget, and changes in the initial conditions (prices, budget, and tastes) will produce responses in the demand for all commodities. Substitution is a fundamental phenomenon in economics, in the medical profession, the viewpoint that health should be absolutely evenly distributed in the population is very firmly rooted. Although there seems to be no similar quest for equality in incomes; that the two are interrelated comes as a big surprise. A striking example of substitution with unexpected health effects may be provided by an investigation of teenager behaviour with respect to use of mobile phones and smoking: while the use of mobile phones has increased dramatically, smoking habits have changed so that there are fewer smokers. A possible explanation is that both types of consumption have the main goal of signalling adulthood, but once the teenagers engage in buying a mobile phone and using it, the budget no longer allows smoking which is consequently reduced. The classical model of long-term consumption and individual health behaviour by Grossman (1972a) is about substitution. You can invest in your own health (by choosing the right diet, workout and frequent visits to the gym), and this investment will give you a payoff in terms of less time wasted on treating and curing your illnesses, but you will have to compare with other investments, such as buying shares, which may or may not give you a better payoff.

(ii) In the health care sector both consumption and production is subject to externalities. It matters to us what other people do or perhaps do not do. First of all, there is simple externality connected with infectious diseases, where the treatment of any patient has an effect on the number of possible future cases, thus on the probability of any other person getting the disease. But the consumption externalities go beyond this. We experience disutility from seeing that other people do not get the same treatment for illness as we do, which means that our satisfaction depends on the consumption of other people besides ourselves. Traffic economists deal with congestion effects: the fact that so many people use their car has a detrimental effect on the pleasure that others get out of using their car. Also, the utility of conspicuous consumption (derived from showing other people that you can afford goods which they cannot) is reduced the more people engage in it. But in the health care sector the externality is other way round and it is a factor to be considered in the design of a system of health care financing.

(iii) On the production side of the economy there is an element of natural monopolies – hospitals need a certain minimal size to function and the cost structure is characterized by the presence of large fixed costs. There are other types of monopolies which are perhaps less based on technological characteristics and more on tradition and political expediency. Pharmacies have a monopoly on sale of prescribed drugs, the medical industry produces under monopoly based on patent rights. It is easily seen that market failure is a central theme in any discussion of the economic performance of the health care sector.

(iv) Uncertainty is an important aspect of economic behaviour, but in some situations (actually, most of the situations treated by economic theory) it is acceptable to disregard it when investigating the basic patterns of behaviour. However, when dealing with problems of illness and treatment for illness, uncertainty is central to the problem. Consumption of this type of health care is consumption under uncertainty, and as such it must be considered in the proper perspective. It has been argued that the presence of user payments for treatment does not reduce demand once the need for treatment is established – a broken leg must be treated whether the treatment is cheap or not. However, this argument neglects that consumption under uncertainty should be considered as contingent consumption (depending on whether an illness occurs or not) and that there is a wide spectrum of choice available to the individual in determining the proper contingent contract (insurance). The

notion of user payments cannot be understood separately from insurance and the types of market failure pertaining to insurance contracts, related to asymmetric information in one of its several forms.We can continue showing that the diverse fields of economic theory come into play in health economics, but it‘s better to proceed directly to health economics proper, where we shall consider the details with these and many other problems. The goal is not only to identify the problems and their theoretical content, but also to relate to the field of regulation and control. This is in many cases quite clear, since markets for health care often do not regulate themselves; there is a need for a regulation in the interest of society. Indeed, the health care sectors are highly regulated in most countries. Control and regulation is a central aspect of the economic organization of the health care sector. When the varying degree of direct public engagement in health care provision is added, it becomes clear that it is something that matters much. We will consider merits and demerits of government engagement versus decentralized market solutions, and since our discussion will have another point of departure (namely economic theory) than its counterpart in the public debate, the conclusions may not always be the same.

Self-Assessment Exercises 1

1. Discuss some of the economic thinking applicable to the health sector.

2.4 The Special Characteristics of the Market for Healthcare

The standard theory of how markets work is the model of supply and demand. This model has several notable features:

(i) The main interested parties are the buyers and sellers in the market.

(ii) Buyers are good judges of what they get from sellers.

(iii) Buyers pay sellers directly for the goods and services being exchanged.

(iv) Market prices are the mechanism for coordinating participants market decisions.

(v) The invisible hand, left to its own devices, leads to an efficient allocation of resources.

This model offers a good description for many goods and services in the economy. But none of these features of the standard model reflects what goes on in the health care market. Like other markets, the health care market has consumers (patients) and producers (doctors, nurses, etc.). But various features of this market complicate the analysis of their interactions. In particular:

(i) Third parties — insurers, governments, and unwitting bystanders—often have an interest in health care outcomes.

(ii) Patients don‘t know what they need and cannot evaluate the treatment they are getting.

(iii) Health care providers are often paid not by the patients but by private or government health insurance.

(iv) The rules established by these insurers, more than market prices, determine the allocation of resources.

(v) In light of the above points, the invisible hand can‘t work its magic, and so the allocation of resources in the health care market can end up inefficient.

Health care is not the only good or service in the economy that departs from the standard model of supply, demand, and the invisible hand. But health care may be the most important good or service that departs so radically from this benchmark.

Self-Assessment Exercises 2

1. Discuss the special features of the health care market.

2.5. Measuring Health

Can health status be measured? Intuitively it is clear that a closer analysis of the use of resources for improving health conditions will depend on how a state of health is measured. It would be helpful if a numerical measure of health were available, so that ―marginal health effect of each conceivable treatment might be computed as change in health per monetary value spent in the treatment. There are difficulties connected with such a measurement. There is no obvious unit of measurement for health, and even the concept of ―health as such is not clear. This should not be a cause of despair, since most of the economic disciplines run into similar difficulties. Even when seemingly exact measures exist, problems show up at a closer analysis (such as e.g. in national accounts: What does the GNP actually measure?). On the other hand, it is clear that the analysis improves with more precise measures of the consequences of economic choices.

This measurement problem encompasses all of health economics. At the outset it is easily seen that there can be no measurement of health corresponding to those of the national accounts, but one might still hope for constructing a suitable scale and positioning different health states on this scale in such a way that higher scale value corresponds to better health. There is also problem of interpersonal comparisons – is it possible to compare the measures of health of two persons, concluding that one of them has a better state of health than the other – and further on, can we aggregate the health of a whole society and then compare the health state of two different countries? It may be seen from this discussion, that it creates a more detailed argument about the nature of the scales on which health is to be measured (a discussion known from the distinction between cardinal and ordinal utility in consumer theory).

Since health a priori is something ranging from perfectness to total absence of health (death), a scale for measuring health states can be chosen as the interval of real numbers from 0 to 1. The approach taken is as follows: First, some fundamental characteristics of health are isolated; each of them describes certain aspects of health. The degree of fulfillment of the demand for perfect health in each of these aspects is then measured on a scale from 0 to 1 (or from 0 to 100). The difficult part of the measurement is the weighing together of the scores in each of the health characteristics. For this a panel of individuals are questioned about the trade-offs between different states of health and the average evaluation is used for weighing the scoring of each of the aspects together to an aggregate health score. A total of eleven characteristics were chosen: ability to move around, ability to hear, ability to talk, sight, ability to work, breathing, ability to sleep, ability to eat, intellectual and mental functioning and social activity. For each of these characteristics a numerical value is determined belonging to a precisely described state of imperfect functioning. For example if ability to move around is specified as follows:

– normal ability to walk, both outdoor and indoor and on stairs,
– normal ability for indoor movement, outdoor movement and/or movement on stairs with trouble,
– can move around indoor (possibly using equipment, but outdoor and/or on stairs only with help from others,
– can move around only with help from others, also indoor,

– conscious, but bed-stricken and unable to move around; can sit in a chair if aided,

– unconscious,

– dead.

The people interviewed will be asked to assign numbers between 0 and 100 to each of the described situations, so that the most desirable state gets the value 100 and the less desirable 0; the remaining states would be evaluated so that if for example the number 75 is assigned to a state which is 3/4 as desirable as the best one, 33 to a state which is only 1/3 as desirable as the best one, etc. With the described characteristics it is possible to move on the aggregation phase, which proceeds more or less in the same way, having the interviewed assign numbers to the most desirable state within each of the 11 characteristics on a scale from 0 to 100. When this has been done, numbers can be assigned to all the described states of health by multiplying the score obtained within the characteristic by the score of the characteristic (now all scores are taken as numbers between 0 and 1) and adding over the 11 characteristics. The method has the advantage of being rather simple and easy to understand (what is not always the case in health status measurement, for example the ―standard gamble method in Quality Adjusted Life Years (QALYs) measurement, which presupposes certain knowledge of probability on the side of the interviewed. The results show a considerable degree of coincidence in the answers of different individuals, which gives some promise that the measurement results are well founded. On the other hand it must be said that the measurement has no obvious theoretical foundation. If state of health is something to be measured in an objective way – it would be comforting to have at least some conjecture of the reason why such a shared ranking of health states should exist. Indeed, economists are accustomed to take the opposite viewpoint, namely that people a priori have very different tastes and desires, so that an observation of identical preferences would call for a special explanation. So far it has been the other way round in health state measurement; preferences are for some unexplained reason assumed to be identical among individuals. The method assumes that the individual rankings made for each of the characteristics involved are independent of the state of events in the other characteristics. This assumption is dubious – if you happen to be in the unconscious state described above, you might well be pretty indifferent as to whether you can read a newspaper without glasses or whether you cannot move around without a dog. This is the property of independence which is at stake, and though not always reasonable it is often assumed

in order to have a manageable preference relation in contexts of empirical investigations. There is always a trade-off between theoretical purity and practical applicability, and seen in this light the independence assumption is quite acceptable. Even stronger assumptions may be accepted if they open up for practical measurement of health status, a field which has so many potential applications.

Self-Assessment Exercises 3

1. Discuss various issues associated with the role of economics in health care

2.6. Summary

In this unit, we discussed the role of economics in the health care, special characteristics of health care and measurement of health status. We can conclude that health economics as a scientific discipline started more than seventy years ago, in the sense that the specific treatment of topics related to the economics of the health care sector is common. Issues associated with the role of economics in the health care sector were examined. The argument surrounding the measurement of health status was also discussed.

2.7. References/Further Readings/Web Resources

McGuire, A., J. Henderson, and G.Mooney (1988) The Economics of Health Care, Routledge and Kegan Paul, London.
Mooney, G.H., (1986) Economics, Medicine and Health Care, Harvester Wheatsheaf.
Mougeot, M. (1986) Le syst`eme de Sant´ e, Centralisation ou d´ecentralisation?, Economica, Paris.

2.8 Possible Answers to SAEs

Answers to SAEs 2

1. Third parties — insurers, governments, and unwitting bystanders—often have an interest in health care outcomes.
2. Patients don‘t know what they need and cannot evaluate the treatment they are getting.
3. Health care providers are often paid not by the patients but by private or government health insurance.
4. The rules established by these insurers, more than market prices, determine the allocation

of resources.

5. In light of the above points, the invisible hand can‘t work its magic, and so the allocation of resources in the health care market can end up inefficient.

UNIT 3 DEMAND AND SUPPLY IN HEALTH CARE

Unit Structure

3.1 Introduction

Supply and demands lead to the demand-based pricing. Higher prices are paid for products or services that are in high demand. Reduced demand leads to lower prices. Strategic planning is needed to determine which activities can be in the most demand and make the most profits. In the early 1960s, economists first became interested in estimating demand for health services when the supply of trained nurses in the United States is not increasing as fast as the demand. The demand for medical services depend on the price of that service, other prices, income and tastes. In this unit you will learn about demand and supply in health care.

3.2. Learning Outcomes

By the end of this unit, you should:

- Understand the concept of heath care demand and supply
- Know the reasons for the difference in health care need and the demand for health care

- Understand elasticity of demand
- Know about resource allocation in health

3.3. Concept of Demand and Supply in Health Care

Every individual has a need or a potential need for health care in the form of health promotion, prevention, cure or rehabilitation. This need is not always translated into a demand for health care particularly in developing countries for various reasons. Health need is transformed into a health care demand when a patient seeks medical care.

All the needs and wants of society cannot be met at the same time even in richer countries, so that opportunity cost are incurred by all users of resources, and the scarce the resources, the higher the opportunity cost. In the case of health services, these costs are incurred both by producers of health services, through their use of staff, buildings, equipment and materials supplies, and by consumers, who use transport to health services, buy drugs, etc. Not all demand will become needs and not all needs translates to demand. Some people get sick but do not demand for treatment.

3.4 Reasons why Health Care needs Exceeds Demand

The need for health care services exceeds its effective demand for it for the following reasons:

a. Price of health care may not be affordable by the individuals (Affordability).
b. The Individuals may not have ready access to the health facility at a time or place that is convenient (Geographical accessibility).
c. The service required may not be available to the individual (Availability).
d. Religious and cultural believes and practices may hinder the use of the health facilities (Acceptability).
e. Cost of time off from work and costs of waiting.

3.5 Demand and Supply of Health Care Services and Elasticity of Demand

The demand for health care in developing countries is largely influenced by the above factors. The extents to which these factors are being reversed in developing countries vary among nations and even within nations. The global economic recession has made affordability of health care service far from

the reach of the common man in these countries. Therefore, utilization of health facilities is affected particularly with the changing trend in which free health care is fast disappearing. The supply of health care is multifaceted. The supply can be in the form of promotion, preventive, curative, and rehabilitative health care. In Nigeria, this can be provided at the various levels of health care namely; primary, Secondary and Tertiary health Care. The health sector in developing countries consists of a heterogeneous mixture of public or government activities and non-government activities including services provided by both modern and traditional practitioners. The level of demand for health care is far beyond the level of supply. Economic recession has made geographical accessibility and availability of health care difficult and this affect coverage.

Under-supply of trained personnel is a major health problem. Large number out of the inadequate health personnel emigrated to developed countries. There is also the problem of under-utilisation of some of the personnel available. Most of the skilled health care personnel in African countries are found in the urban areas to the detriment of the rural areas where about 70% of the population live. In 1988, the World Bank conducted an extensive study on household demand for outpatient services in Ogun State. The empirical model assumed that choice of health care is a function of the price of the care, quality of the care, sex and education of the patients, wealth of the household, income of the household, urban residence, symptoms of the illness and seriousness of the illness.

This is the degree to which the demand for a good or service decrease (increase) in response to a price increase (decrease). Demand for health care is generally elastic because of the nature of health problems which often require that sufferers take some action to demand for care. Demand for health care, especially curative health care tend to be price inelastic, meaning that any increase in user fees will result in a less than proportionate decrease in demand and thus increase in revenue. This is because when it gets to some stage people will have to take up health care even when they cannot afford. Most of the consumers that are unable to utilize service in public facilities because of cost seek care from some other sources particularly if the private providers are price-competitive.

Self-Assessment Exercises 1

List reasons why health care demand is less than the need for health care in Nigeria.

3.6 Resource Allocation in Health Care

If health care systems devote greater attention to preventive and primary care, the recovery of costs at public hospitals takes a monumental importance. The determination of what proportion of fund available should be allocated to preventive care is dependent on a number of reasons. It is well known that preventive health care delivery is cheaper to the society. From basic economic point of view it is better to pay more attention to preventive care than curative care in resource allocation. When the high capital and recurrent costs of hospitals are financed by government, then government health budget will be much more towards hospital services. In most African setting it is the urban fairly well to-do families that have easy access to this level of care and they receive a disproportionate share of government subsidy on health to the detriment of the poor rural dwellers. This situation worsens the problem of equity.

The pyramid of curative health care in Nigeria has primary health care as its base and then followed by secondary health care which is made up of general, cottage and mission/big private hospitals. The apex of the pyramid is the tertiary health care consisting mainly of teaching and specialist hospitals. Primary health care is the first point of contact with the health system and should attract adequate resources in terms of personnel, funds, equipment and materials. The more the simple cases that are treated at higher levels of health care, the more the inefficiency in health system.

Self-Assessment Exercises 2

1. What are the main concerns in resource allocation in the health care sector

3.7 Summary

In this unit you have gone through demand and supply in health care. Demand for health care particularly in developing countries has been described with its determinants. Every country needs to have healthy citizens to achieve any development. You have also been exposed to the important issue of resource allocation in the health sector.

In every community the need for health care does not always translate into demand for health care. Price increase in health care does not lead to a proportionate decrease in demand (unlike some other goods) because of desire of people to be in good health. Demand following price increase in a particular facility may result in individuals trying some other places for alternative health care. Economic development requires citizens to be productive and to be productive one need to be in good

health. It is therefore imperative that health brings about development. This need to be achieved through efficient allocation of resources to the various levels of health care delivery.

Self-Assessment Exercises 3

Discuss the various determinants of demand for health care in the context of your locality.

3.8

Culyer A.J. (1989) A Glossary of the more common terms encountered in health economics" in MS Hersh-Cochran and KP Cochran (eds) Compendium of English Language Course Syllabi and Textbooks in Health Economics, Copenhagen, WHO, 215-234.

Tomey A.M. (2003). Guide to Nursing Mangement and Leadership. 6th edition. Elsevier Science (Singaphore) PTE Ltd, Singapore

3.9 Possible Answers to Self-Assessment Exercises

Answers to SAEs 1

Health care demand is less than the need for health care in Nigeria because:

a. Price of health care may not be affordable by the individuals (Affordability).

b. The Individuals may not have ready access to the health facility at a time or place that is convenient (Geographical accessibility).

c. The service required may not be available to the individual (Availability).

d. Religious and cultural believes and practices may hinder the use of the health facilities (Acceptability).

e. Cost of time off from work and costs of waiting.

UNIT 4 THE ORGANISATION OF HEALTH SERVICE

Unit Structure

4.1 Introduction

One of the themes of health sector reform, which has taken place in both developed and developing countries, is a shift away from the assumption that the state should directly manage health facilities. The reality in most developing countries is that alternative providers of care have always existed - not least in the form of traditional medicine. Since the 1950s though there has been a strong view that it is the duty of the state to finance and provide all mainstream health services. The burden of paying for health services has been shifting to individuals and families. This unit focus on the question of how health services are provided. The following series of questions are answered:

(i) What are the problems with bureaucratically managed public health services?

(ii) What evidence is there about the relationship between the private sector, competition, and the goals of efficiency,and equity?

(iii) Quasi-markets in the public sector: what are the lessons?

(iv) Privatisation: what does it mean and how is it done?

(v) Is there a consensus on roles for public and private sectors?

4.2. Learning Outcomes

By the end of this unit, you will:

- Understand the problems with the state provision of health services
- Know the interaction of the private sector, competition and health sector performance
- Understand the quasi-markets in the public sector

4.3 Problems with State Provision

There are problems associated with 'command and control' style state-run bureaucracies. These problems among others include:

(i) Overcentralisation: Decisions on relatively minor issues, like buying new beds, have to be approved by a higher authority. Local managers have little flexibility in use of resources.

(ii) Poor management: Communication is poor between the levels, rigid norms are applied; the focus is on day-to-day survival rather than advance planning.

(iii) Poor Incentives: Quality and efficiency are not rewarded, either for the hospital as a whole or for individual staff.

(iv) Resource Shortages: State budgets fall short of what is necessary to meet demand with high quality services.

Many of these problems can be tackled by reforms within the public sector. The first problem has supported the policy decision to decentralize. The second has led to a range of management-strengthening programmes. The third has prompted some reform of payment systems. The fourth has led to changes in health financing to increase revenues. However, a disillusion with public provision set-in in the late 1980s, supported by the private-sector orientation of organisations like the World Bank, the collapse of communism in eastern Europe and the former Soviet Union and a number of sector market-style reforms in Western health sectors. The private sector was seen as more efficient, more responsive to customers and therefore likely to deliver higher quality services.

This is so, because competition between providers to attract customers is believed to drive quality up and costs down to a minimum. There was also a political agenda: at the general level, an ideological shift towards the 'free market'; and, at the more local level, an attempt to by-pass bureaucratic structures which were proving hard to reform from within.

Self-Assessment Exercises 1

Why does the private sector was seen as more efficient, more responsive to customers and likely to deliver higher quality services?

4.4. The Private Sector, Competition, and Health Sector Performance

According to an old adage 'the worst enemy of capitalism are the capitalists'. That is, if a business can get into a monopoly position by driving out its rivals, it will do, as this allows it to gain excess profits. Thus the private sector and competition are not synonymous, unless there is some regulation of the market to control anti-competition measures such as monopolies, cartels and price-fixing. This is true of health as of other markets. In the hospital sector, there is a tendency for local monopolies to occur because of the economies of scale and scope which exist and the high investment costs of setting up the business. A monopoly in the public sector often leads to a fall in quality and responsiveness to patients; private monopolies still need to attract patients, quality is maintained, but at the cost of increased prices (especially when a third party is paying).

For example, the drug sellers may be operating in a competitive environment and so are under pressure to keep their prices low. However, if it is hard for patients to judge the quality of their products, then quality may suffer. Even where there is competition, there is no evidence that the private sector invariably provides greater efficiency or quality. For example, in the US, competitive markets have been shown to have higher costs, more duplication of services, longer lengths of stay and higher staff ratios than non-competitive markets (Robinson and Luft, 1988). The indirect payment system (via insurance premia) can lead to price inelasticity of demand and an upward spiral of prices. Quality issues are often hard for the consumer to judge. For example, has the reduction in length of stay in hospitals in the US in the 1990s been a good or bad thing? There are also major issues of access both as a result of cream-skimming and the rising costs of health insurance policies. Can we draw a general conclusion about the relationship between public or private sector provision of services and the goals of efficiency, quality and equity? Some simple positive and negative examples from both sectors are

given in Table 1. What is clear in these examples is that it is not the ownership of facilities that matters, but rather a whole range of complex issues such as:

(i) how competitive is the market?

(ii) what is the regulatory framework?

(iii) how effectively are regulations enforced?

(iv) what are the payment/pricing systems and what incentives do these provide?

(v) what is the overall level of resourcing of the system?

(vi) what is the culture/expectation/motivation of providers and consumers?

Table 1: Public and Private Sectors: How they are Judged by Key Criteria

	Efficiency	Quality	Equity
Public sector provision (the positive examples)	Because of economies of scale, purchasing of drugs and equipment can be done much more cheaply by the government and can be allocated according to real needs.	Health workers in the public sector (if adequately paid) can focus on appropriate treatments and prevention, rather than profit-making ones	Access to public services is usually a basic right: all can seek treatment at low or no cost
Public sector provision (the negative examples)	If you save money, your facility is likely to get less next year: there is no incentive to cut costs.	If you work hard at your job or give a good service, your salary remains the same. Why bother?	A limited supply of health care and low cost services can mean only one thing: rationing. Not all will be treated, and priority is unlikely to go to those in greatest need or with greatest ability to benefit.
Private sector provision (the positive examples)	Profits are retained, so any costs which can be cut without damaging business will be cut.	The customer is king: they shall have the services they desire, together with comfort and convenience.	Price discrimination may be introduced to attract poorer customers as well as rich.
Private sector provision (the negative examples)	Every facility has to have expensive diagnostic equipment to attract customers, even if this duplicates other local services.	Over-treatment may augment incomes, but it can damage patients' health, not to mention their wallets. It can also cause wider social problems, such as the spread of drug resistance.	Treatment according to ability to pay, combined with gross income inequalities, is not the way to ensure 'Health for all'.

Self-Assessment Exercises 2

Discuss the private sector competition effects on the Performance of the Health sector in Nigeria.

4.5. Quasi-markets in the Public Sector

A clear question to ask is whether (and how) we can keep the best of the public sector (in particular, accountability of services and the ability to impose public goals) and make private sector-type improvements in quality, efficiency and responsiveness to customers. One approach which has been tried, and now in some transitional and developing economies, is to introduce competitive dynamics into a system which is still funded and, managed within the public sector. How has this been done? Using example of the UK health reforms in the late 1980s/early 1990s, there were a few components:

a. Purchaser-Provider Split: Instead of providers being guaranteed to receive an annual budget, they were turned into self-governing (not for profit) bodies, which have to compete for funding from health authorities, doctors and private sources. As they remain in the public sector, they are governed by strict rules about use of assets, pricing and entry/exit from the market.

b. Primary Care Fund Holders. Another innovation was to give the entire budget for a patient's care to the primary care doctor, who either provides services or buys the best deal from any secondary providers offering the relevant service. This ensures competition between purchasers as well as providers.

c. Public/Private Barriers Lowered. With the introduction of contracts and specification within the public service, it is an easy step to say that public purchasers can buy from private sources, just as public hospitals can provide services for private purchasers. Thus 'internal markets' may lead to a partial privatisation. However, it would appears that there have been some gains, in terms of better services for fund-holders' patients, and some rationalisation of hospital provision the gains appear to be less than expected, and there has been ongoing substantial cost, in terms of one-off reform costs and increased transaction costs (contracting, paperwork, monitoring, information flows, etc.)

Note that many of the positive changes which these reforms have introduced into the public bureaucracy could be – and are being – tried out without the more far-reaching structural reforms. For example, it is possible to change payment systems without and increase the flexibility of managers to use resources the purchaser-provider split. Although nominally subject to policy direction by the Ministry of Health, these providers are effectively autonomous and highly responsive to 'the market'. It is debatable whether this arrangement is ideal, as the public sector is subsidising a profit-seeking group of providers without necessarily having much control over the scope, price or quality of their services.

The same occurs at the level of individual staff. In many developing countries wages in the government sector are lower than market equivalents and also below subsistence levels. In this

situation, while formally continuing in government employment, staff have to become profit-seeking – by making formal charges, informal charges or by moonlighting as private providers. It is common for doctors to hold private clinics in the afternoon, for example, often using government facilities and equipment.

Self-Assessment Exercises 3

Discuss the causes of Quasi-market in the public sector in developing nations.

4.6. Consensus on Public/Private Roles?

As the distinction has becoming more blurred, it is not possible to say that the public sector should, provide X service and the private sector Y. However, experience suggests the following lessons:

(i) A competitive environment is necessary (but not sufficient) if efficiency gains are to be made from switching to private providers. This is often lacking, especially in rural or poorer areas. Poverty tends to reinforce risk aversion, which in turn leads to 'thin' markets. Access to capital is needed for firms wishing to set-up business, so developed capital markets make a competitive environment more likely. Private providers are likely to be able to offer efficiency savings if they have a competitive advantage, such as access to cheaper labour than government.

(ii) The public sector must have the resources, capacity and inclination to negotiate, set standards and monitor contracts with the private sector. Otherwise contracts or subsidies can simply perpetuate inefficient use of resources.

(iii) The link with financial sources is important. Acting as a purchaser and contracting for services assumes that the state is the main funder of health care. Where private finance predominates, it is harder for the government to influence provider behaviour (whether public or private, and whatever the instrument in question).

(iv) Privatisation in its various forms should not be viewed as a form of cost saving. An under-resourced system will produce distortions, whether in the public or private sectors. There are one-off costs and on-going information costs to consider, even if private providers are relatively efficient in their organisation.

(v) Access must be monitored, especially to see if costs are being shifted to patients.

(vi) Regulation of safety and quality is more important, and the Ministry of Health is rarely capable of carrying out this role effectively. Regulations should be clear and simple and must be adequately enforced. This also means that legal systems must be accessible and reliable.

(vii) The issue of corruption must be considered. Will contracting out or subsidies increase the scope for corruption in government circles or the private sector? What kind of checks or audits are necessary to pre-empt such a development?

(viii) There is no evidence that private providers are unsuitable for preventive or promotive services, if contracts are appropriately structured.

(ix) The type of payment system is important, whatever the status of the provider.

(x) It should be clear what the goal is in increasing private sector involvement. Possible goals might be to increase the quality of services, to increase the transparency of services, to achieve reforms in the public sector or to increase utilisation of services.

Self-Assessment Exercises 3

What are the consensus on the private/public sector roles suggest?

4.7. Summary

This unit has taken you through different interactions of public and private sectors focusing on provision. One group of reforms have sought to bring private sector behaviour into the public sector ('quasi-markets'). What has occurred in many developing countries is more of a privatisation from within, in which public sector institutions and staff react to private opportunities to generate income more than bureaucratic control. This produces results which are far from ideal. It also calls into question traditional definitions of public or private, based on ownership of assets. Thus, we need institutions, to examine the behaviour and motivation of staff and which will in turn relate to the local culture and the way in which the market is structured.

Private providers are not a new phenomenon in developing countries. However, this unit started with an explanation of why there has been an ideological shift away from the view of the public sector as the 'right' (or only) provider of basic health services. It noted that many of the complaints could in fact be tackled by reforms within the public sector. Arguments for private sector involvement have been motivated by political factors as much or, arguably, more than economic ones. It then went on to examine the connection which is commonly assumed between the private sector, competition and the goals of efficiency, quality and equity. It argued that there is no necessary link between the private

sector and competition, and also that competition on its own does not guarantee an increase in efficiency, quality or equity. It may do so, but only if other contextual factors are right.

4.8. References/Further Readings/Web Resources

Bennett, S., Dakpallah, G., Garner, P., Gilson, L., Sanguan, N. and Zwi, A. (1994). Carrot and stick: state mechanisms to inflfluence private provider behaviour, Health Policy and Planning, 9, (1) (and other articles in that special edition).

Bennett, S., McPake, B. and Mills, A. (1997). Private Health Providers in Developing Countries. London: Zed.

Broomberg, J. (1994). Managing the health care market in developing countries: prospects and problems, Health Policy and Planning, 9(3).

Brugha, R. and Zwi, A. (1998). Improving the quality of private sector delivery of public health services: challenges and strategies, Health Policy and Planning, 13(2).

Gani, A. (1996). Improving quality in public sector hospitals in Indonesia, International Journal of Health Planning and Management, 11 (3).

4.9 Possible Answers to SAEs

Answers to SAEs 3

1. A competitive environment is necessary (but not sufficient) if efficiency gains are to be made from switching to private providers. This is often lacking, especially in rural or poorer areas. Poverty tends to reinforce risk aversion, which in turn leads to 'thin' markets. Access to capital is needed for firms wishing to set-up business, so developed capital markets make a competitive environment more likely. Private providers are likely to be able to offer efficiency savings if they have a competitive advantage, such as access to cheaper labour than government.

2. The public sector must have the resources, capacity and inclination to negotiate, set standards and monitor contracts with the private sector. Otherwise contracts or subsidies can simply perpetuate inefficient use of resources.

3. The link with financial sources is important. Acting as a purchaser and contracting for services assumes that the state is the main funder of health care. Where private finance predominates, it is harder for the government to influence provider behaviour (whether public or private, and whatever the instrument in question).

4. Privatisation in its various forms should not be viewed as a form of cost saving. An under-resourced system will produce distortions, whether in the public or private sectors.

There are one-off costs and on-going information costs to consider, even if private providers are relatively efficient in their organisation.

5. Access must be monitored, especially to see if costs are being shifted to patients.

6. Regulation of safety and quality is more important, and the Ministry of Health is rarely capable of carrying out this role effectively. Regulations should be clear and simple and must be adequately enforced. This also means that legal systems must be accessible and reliable.

7. The issue of corruption must be considered. Will contracting out or subsidies increase the scope for corruption in government circles or the private sector? What kind of checks or audits are necessary to pre-empt such a development?

8. There is no evidence that private providers are unsuitable for preventive or promotive services, if contracts are appropriately structured.

9. The type of payment system is important, whatever the status of the provider.

10. It should be clear what the goal is in increasing private sector involvement. Possible goals might be to increase the quality of services, to increase the transparency of services, to achieve reforms in the public sector or to increase utilisation of services.

Module 2: Health and Development

This module discusses the importance of health in development. The connections between health, poverty and growth. The specific unit topics are:

Unit 1: Health Care and Health

Unit 2: Health and Poverty

Unit 3: Health and Growth

Unit 1: Health Care and Health

Unit Structure

1.1. Introduction
1.2. Learning Outcomes
1.3. Individuals as Producers of Health
1.4. Health Goods and Market Failure
1.5. The Political Economy of Health Care
1.6. Summary
1.7. References/Further Readings/Web Resources
1.8 Possible Answers to Self-Assessment Exercise(s) within the content

1.1. Introduction

Health is not everything in life, but without health, life is nothing". This proverb points to the dual property of health. Health is a highly valued asset. Sometimes it is even claimed that health is the only thing which counts in life. The first part of the proverb reminds us that other values and goals do exist in life, yet, compared with health, they rank lower on the *preference scale* of most people. While this priority of health is accepted as a fact, it does not rule out that health risks (i.e., an increased probability of poor health) are taken in order to achieve other goals.

The second part of the proverb points to health as a precondition for success in other activities. Poor health limits the *production capabilities* of the affected person, including his or her ability to enjoy the good things of life. In particular, consumption services do not flow automatically from consumer goods but require a great deal of time, knowledge and skills, all of which can be impaired by a poor state of health. The successes of modern medicine have fostered the conviction that almost everyone can reach a good state of health, provided one uses the appropriate means. However, if health is perceived as being produced, the question of the *producer* arises immediately. Even though much of healing continues to be attributed to physicians, it cannot be denied that every healing process begins in the psyche and body of the individual concerned. The fact that many illnesses heal spontaneously also lends support to the view that individuals are the ultimate producers of their health. This unit analyze the production of health taking account of the peculiarities of health care.

1.2 Learning Outcomes

By the end of this unit, you will :

- Know the models of health production.
- Understand the deterministic influence on health
- Understand health as being the result of a production process.

1.3 Individuals as Producers of Health

For economic laymen it is strange to talk of health production. Associating the concept of production with methods of cultivation in agriculture and in particular with production processes in industry, may point to at least two peculiarities that set health and health care apart from production as commonly understood.

- *Lack of control.* Production processes in agriculture and industry can be controlled to a large extent. If farmers expect a future increase in demand, they usually produce on inventory; if they expect a drop in demand, they will limit production or reduce stock. The process of producing health seems to lack this type of control.

- *Lack of tradability*. The output of production is usually sold to a third party. In the case of health, such a sale would be conceivable only in a slave economy, in that a higher price would be obtained for a healthy slave than for a sick one. In today's societies, a higher wage can be obtained by a healthy worker. However, the wage rate depends on other factors as well, not least the skills of the individual. These skills are not transferable either, posing an additional challenge to non-economists who are reluctant to view education as the 'production of skills'.

While these objections are not without merit, they are not as strong as they may appear. In the first place, lack of complete control over the production process does not preclude the existence of a systematic relationship between inputs and outputs. The fact that harvest yield in agriculture in a given year crucially depends on the weather does not rule out that increased use of fertilizer generally increases the yield, and farmers behave in accordance with this. In the same way, efforts taken to maintain health can be considered as inputs in a production process. While they do not always help to avoid illness, on the whole they do contribute to better health.

Part of the lack of control is the apparent perishability of the finished product 'health'. However, both health and education may be viewed as *invisible capital stocks*, which are augmented by investment, provide services, and are subject to depreciation. In the case of health, the annual holiday, and more generally a lifestyle that avoids excessive demands on one's health, corresponds to an investment in health. If a loss in health capital ('depreciation') occurs in the wake of illness, then the health stock of an individual who has previously invested in his or her health is still higher than those of another. It is a known fact that rested people withstand most illnesses better than over-tired people, non-smokers better than smokers, those of normal weight better than those of overweight. Thus, while 'producing on inventory' cannot be directly observed, the concept of production need not be dismissed out of hand.

Lack of tradability of the produced good seems to present another obstacle for adopting the concept of a production process or a production function. However, individuals trade with themselves as it were. Indeed, they trade off better health against something else of value. They hardly have to give up money as a rule because medical services in most industrialized countries are almost free, thanks to comprehensive health insurance. However, they must still sacrifice something, such as consumption of alcohol, tobacco or food and in particular time that could be used for other purposes. On the other

hand, applying the concept of production, or more precisely, of a production function, to health has considerable advantages.

(1) *Optimality conditions as a point of reference.* Production has a cost, and the cost resulting from securing better health can be compared to the marginal cost of other goods produced by individuals, in particular consumption services. In an optimal state, the marginal cost of health relative to the marginal cost of consumption should be equal to the individual's marginal willingness to pay for health relative to consumption. The marginal willingness to pay for health can be determined and can be compared to the relative marginal cost. There is reason to expect a discrepancy between the two ratios, since the marginal willingness to pay in the health care sector may be distorted both by health insurance (*moral hazard*) and the physician (*supplier-induced demand*), while negotiated fees for medical services do not have much in common with their true marginal costs.

(2) *Relative marginal productivity of inputs.* The concept of the production function comprises the notion that different inputs make different contributions to the resulting output. One such input are medical services, whose true marginal cost can be extremely high in today's health care systems. The huge expenditure on medical care can be justified, from the economist's viewpoint, if it is characterized by a very high marginal productivity compared to other inputs in the production of health. In this context, it should be noted that an improvement of environmental quality could perhaps have a greater marginal productivity in terms of health than a continued increase in health care expenditure. These advantages justify applying the economic concept of the production function to health.

Self-Assessment Exercises 1

What are the peculiarities that set health and health care apart from production?

1.4. Health Goods and Market Failure

The allocation of health goods frequently deviates from the principles of a market economy. This holds true for medical services, even in Western industrialized countries, which claim to be market economies. In general, neither the decision to offer a medical service nor the decision to demand that service are made by sovereign individuals or firms who bear the full financial consequences of their choices. Moreover, the price mechanism is not permitted to coordinate choices in health care by

signaling varying degrees of scarcity. The decision making process is thus different from that characterizing the production and purchase of refrigerators.

The United Kingdom and Italy, for example, have tax-financed national health services with permanently employed physicians who provide their services to patients free of charge. In other countries, social health insurance covers all or at least the majority of citizens, who often do not have a choice of insurer. In addition, benefits are usually laid down by law, while the prices of medical services are regulated by fee schedules enforced by public authorities. These deviations from market allocation are generally justified by claiming that health goods present particular features rendering them different from other goods. These features are said to cause a 'market failure', i.e., to result in an equilibrium that does not correspond to a Pareto-optimal allocation in non-regulated markets. In addition, equity concerns provide a reason to reject the market mechanism.

The appropriate point of departure for the theory of market failure is the First Theorem of Welfare Economics. This proposition states that in the absence of external effects and public goods, every competitive equilibrium constitutes a Pareto optimum. In order to justify the regulation of the market for health goods, one needs to show that at least one of the requirements cited in this theorem are violated, notably because

- health goods have the characteristics of public goods;
- the consumption of health goods gives rise to external effects;
- the criteria of a perfectly competitive market, specifically market transparency and consumer sovereignty, are not met.

The most important peculiarities of health goods cited in the literature are discussed in the light of these three points. Even if a market failure surfaces, however, it is still appropriate to examine the suitability of alternative social institutions (e.g., public provision of goods or compulsory insurance) to check whether they secure a higher degree of efficiency than the market. In doing so, one has to bear in mind that health goods are not homogeneous. This makes it possible that the market presents a suitable form of allocation in one case but may fail in another. A distinction between market failure at different levels in the production process will turn out to be useful:

(a) failure in the market for medical services;

(b) failure in private insurance markets providing coverage against the financial risks associated with illness.

Note, however, that the discussion will be limited to criteria for static efficiency, thereby holding health care technology constant at the existing level. We thus ignore problems of dynamic efficiency arising from the impact of health care financing on the development of health care technology.

Externalities and the Problem of Public Goods

If the consumption of a good *h* by individual *i* has direct effects on the utility of individual *j*, giving rise to an externality, then the market mechanism does not lead to a Pareto-optimal allocation in a situation of perfect competition. The reason is that in this case, consumer *i* optimally buys a quantity of good *h* such that his or her own marginal utility (measured in monetary units) derived from the last unit of the good is equal to its price. In doing this, she or he does not take the potential effects on *j*'s marginal utility into account.

Positive externalities are therefore, associated with under-consumption of the good, while negative externalities are associated with over-consumption in a market economy, relative to the Pareto-optimal solution. In the case of health goods, positive externalities are more relevant. We can distinguish two varieties. The consumption of health good *h* by the individual *i* can either

- directly improve the health of individual *j* (physical externalities),
- simply lead to increased satisfaction for individual *j* (psychological externalities).

Physical externalities arise in the context of communicable diseases. If individual *i* seeks treatment or tries to prevent that she or he contracts such a disease, the probability of individual *j* getting infected is reduced. In a two person case, a Pareto optimum could be brought about by *j* voluntarily subsidizing the vaccination costs of *i*. In reality, externalities are spread over many people, giving rise to their collective good property, a complication that can be explained as follows:

A 'collective good' (also called 'public good') is characterized by non-rivalry in consumption. If consumer *i* obtains a unit of good *h*, then another consumer *j* can also use the same unit without diminishing *i*'s enjoyment of the good. This condition is satisfied in an ideal way in the case of the external benefit created by the vaccination (good *h*) of individual *i*, since this affects several other individuals, even without a diminishing effect if their number increases. Moreover, the exclusion principle cannot as a rule be applied to collective goods, meaning that nobody can be barred from using them, even though she or he has not contributed to their provision. In a perfectly competitive market, these goods will be under-provided. The reason is that the individual consumer has no

incentive to contribute to the financing of such a good being able to benefit from the advantages of a reduced risk of infection while others take over the financing. These considerations suggest that compulsory vaccinations to prevent communicable diseases or measures designed to prevent epidemics should be provided by the government and subsidized using general tax revenue.

For psychological external benefits, the term 'altruism' is frequently used. The utility level of the altruistic individual *j* not only depends on her or his own consumption, but also (again positively) on the consumption of individual *i*. As a rule, a positive externality may arise only as long as the consumption of a fellow citizen is perceived as being 'unbearably' low. Indeed, it causes most people to be distressed when seeing others die from starvation or lack of medical care, particularly if their suffering was not caused by their own actions. The existence of altruistic attitudes in society now raises the question of whether the corresponding positive externalities

(1) can be internalized through private action or whether some public intervention is required for attaining a Pareto improvement, and

(2) require subsidization or even free provision of certain goods (e.g., medical treatment), or whether they can be settled using money transfers, i.e., whether 'transfers in kind' are considered superior to 'transfers in cash' according to welfare criteria.

In a society with many wealthy members, everyone benefits when someone else supports the poor. In the absence of organization by the government, this situation would result in under-provision of relief for the needy. Charity therefore has the properties of a collective good which provides an argument for the government to organize support for the poor who cannot afford medical treatment.

Self-Assessment Exercises 2

Discuss the argument for the government provision of health services.

1.5. The Political Economy of Health Care

Whenever a normative statement was made it was based on the efficiency criteria of welfare economics. This left open the issue of whether a Pareto-optimal design of a health care system might ever be achieved. This section raises the question of what determines the actual institutional structure of a health care system. This type of question is the topic of 'Political Economy', also known as 'Public Choice'. With regard to health policy and regulation, the following agents can be distinguished:

(1) *Citizens:* In a direct democracy, citizens may challenge a law that has been passed by a popular referendum. They may also force the legislature to deal with an issue through a popular initiative. In a purely representative democracy, voters have an indirect influence by voting for candidates for political office or parties who promise to pursue a certain policy. Even in a dictatorship, citizens are not without influence because some of them must be won over to keep public administration and the economy functioning. The more closely the health policy adopted by a dictatorial government matches the preferences of the citizenry, the less costly it is for it to maintain its power.

(2) *Politicians:* These individuals want to be elected. In a democracy, they need to obtain votes. Promising to organize the provision of health care services has been a selling proposition. Meanwhile, especially younger voters seem to have become aware that these public programmes typically place a heavy financial burden on them while benefiting mainly the elderly.

(3) *Executive member of government:* Gaining or maintaining executive power usually calls for a great deal of financial support, which comes from large companies engaged in the health care sector (insurers, pharmaceutical companies) or professional associations (of physicians, nurses and hospitals). In general, the 'supply side' tends to prevail in health policy at the governmental level.

(4) *International organizations:* The World Health Organization (WHO) has had considerable success in influencing national health policy by emphasizing the risks posed by epidemics. Increasingly, decisions affecting health policy and regulation are made by the World Trade Organization (WTO) and in particular the European Union (EU). In both instances, the fact that traded commodities may have an impact on health while some health goods (above all, pharmaceuticals) are tradable provides a justification for intervention.

Collectively Financed Health Care in a Democracy

In many of the wealthy nations of Western Europe, collectively financed health care systems have been introduced during the last 125 years. Two main alternatives can be found.

(a) A *National Health Service* is usually financed out of general tax revenue. Medical treatment is more or less free of charge for all citizens. In addition to the UK, such systems can be found in Greece, Italy, Portugal, the Scandinavian countries and Spain.

(b) *Social Health Insurance* is financed by social insurance contributions that often amount to a payroll tax since they are levied on labour income while membership is compulsory. In contrast to private health insurance, contributions are not based on risk; in particular, they do not depend on health status. They can either be uniform or depend on income. The following analysis can be applied to both variants of a collectively financed public health care system. An important question is whether citizens have the right to purchase health care not covered by the public system. If so, net payers, i.e., individuals whose contributions exceed their expected health care expenditure, tend to vote for a smaller public system than if they have to exclusively rely on it. Since in a country that respects civil liberties citizens can hardly be prevented from spending their own money on health care (if necessary abroad), a market for private health care services is assumed to exist. Private insurers provide coverage for these services. Three questions are at the center of the analysis.

(i) Will a public health care system be introduced in a direct democracy?

(ii) If so, how large will the system be?

(iii) Will contributions be uniform or related to income?

The most important assumption is that citizens decide on the regime behind a veil of ignorance, i.e., a situation in which individuals do not yet know their risk of becoming ill. The decision on the quantity of health care in a given regime, however, occurs in full knowledge of one's state of health.

Self-Assessment Exercises 3

Discuss the important issues considered for a public-funded health care

1.6. Summary

This unit take a look at health care and health. Individuals as producers of health was discussed and health and market failure was also considered. Finally, the political economy of health care was considered. All these have exposed you to important discussion about health care and health.

The fact that the health status of a person importantly depends on chance and that health is perishable and lacks tradability does not rule out considering health as being the result of a production process. Moreover, using the concept of a production function one can assess the optimality of individual behavior and the efficient use of scarce resources.The theory of political economy or public choice seeks to explain the existence and functioning of political institutions. Applied to the financing of

health care, it can be used to explain why many democracies have opted for the collective financing of their health care systems. In a democracy, the extent of public health care depends decisively on how the system is financed. Since income-related contributions induce redistribution not only from healthy to ill persons but also from rich to poor, public health care can receive support not only from the ill but also from individuals who are healthy but have low income.

1.7. References/Further Readings/Web Resources

Smith, R. (2006). Trade in Health Services: Current Challenges and Future Prospects of Globalization, *in* A. JONES (ed.), *The Elgar Companion to Health Economics*, Edward Elgar, Cheltenham, 164–175.

Stearns, S. and Norton, E. (2004). Time to Include Time to Death? The Future of Health Care Expenditure Predictions, *Health Economics* 13: 315–327.

Telser, H. and Zweifel, P. (2002). Measuring Willingness-to-Pay for Risk Reduction: An Application of Conjoint Analysis, *Health Economics* 11: 129–139.

Zweifel, P. (1999). Suggestions for Health Policy in the 21st Century: An Economist's Point of View, *in* H. L Offler and E. Streissler (eds.), *Sozialpolitik und Okologieprobleme der Zukunft (Social Politics and Problems of Ecology in the Future)*, Osterreichische Akademie der Wissenschaften, Wien.

1.8 Possible Answers to Self-Assessment Exercise(s) within the content

Answer to SAEs 1

1. *Lack of control.* Production processes in agriculture and industry can be controlled to a large extent. If farmers expect a future increase in demand, they usually produce on inventory; if they expect a drop in demand, they will limit production or reduce stock. The process of producing health seems to lack this type of control.

2. *Lack of tradability.* The output of production is usually sold to a third party. In the case of health, such a sale would be conceivable only in a slave economy, in that a higher price would be obtained for a healthy slave than for a sick one. In today's societies, a higher wage can be obtained by a healthy worker. However, the wage rate depends on other factors as well, not least the skills of the individual. These skills are not transferable either, posing an additional challenge to non-economists who are reluctant to view education as the 'production of skills'.

UNIT 2 HEALTH AND POVERTY

Unit Structure

2.1. Introduction

2.2. Learning Outcomes

2.3. Definition of Poverty

2.4. Health Problems and the Economy

2.5. Improved Economy leading to Improved Health

2.6. Summary

2.7. References/Further Readings/Web Resources

2.8. Possible Answers to Self-Assessment Exercises within the content

2.1 Introduction

Some two-third of the world's population go to sleep hungry at night. The world Bank estimated that perhaps as much as one-quarter of the world survives on no more than $1 (about ₦700.00) per day. Outright famine regularly occurs in many parts of the world. Examples of this, is the mass starvation of an estimated 1 million people in Ethiopia during the drought of 1984–1985, the catastrophes in Asia. This people had little access to health care, they live in unsanitary environment, infant and child mortality is high and life expectancy is low.

Poverty is related to the economic activities of the country. There is no society that has enough resources to produce enough goods and services that will satisfy all wants and desires of its people. The production of goods and services within an economy can be measured by the Gross Domestic Product (GDP). GDP is the measure of all final goods and services produced within an economy during a year. Countries with low GDP among other causes have problem of poverty, though in some countries with high GDP there is "poverty amidst plenty". Poverty creates ill-health because it forces people to live in environments that make them sick, without decent shelter, clean water or adequate sanitation. From the 2022 Nigeria poverty assessment, the Nigeria's poverty headcount rate at the international poverty line was 42.8% in 2010 and the absolute number of poor people have increased. The growth Nigeria experienced in the early part of the 2010s unfairly benefited non-poor Nigerians. Consequently, more than 93 million Nigerians still live in poverty, with at least three million sliding into extreme poverty between 2018 and 2019 (World Bank, 2022).

2.2 Learning Outcomes

In this unit you will:

- Learn about poverty and understand why the poor have ill health problems.
- Understand the relationship between economy and health problems.

2.3. Definition of Poverty

Poverty is concerned with the relationship between the minimum needs of people and their ability to satisfy those needs. Poverty can be difficult to define because of the relative meaning of minimum needs. The United Nations uses living on less than $1 (₦700.00) per day to define poverty. The poor are at greater risk of becoming ill. Poor health has adverse effects on productivity which further contribute to poverty. Poverty affects access to health services. Poverty also limits ability to meet the cost of health care. The poor have worse health outcomes than other economic and social groups. Infant, child and maternal mortality rates are higher in poor communities.

On the average, the poverty headcount in Nigeria between 1960 to 2015 was 61.8% of the population. Given the poverty line of $1.90 per day, 46.5% of Nigerians are extremely poor, and Nigeria was classified as the poverty capital of the world (World Poverty Clock, 2019). The 2019 World Poverty Clock indicates that extreme poverty in Nigeria is increasing by almost six persons per minute. The 2022 Nigeria poverty assessment shows that the Nigeria's growth performance lies below population growth and was decreasing even before the COVID-19 crisis (World Bank, 2022). From the 2022 Nigeria poverty assessment, the Nigeria's poverty headcount rate at the international poverty line was 42.8% in 2010 and the absolute number of poor people have increased with rapid population growth (World Bank, 2022). More so, the growth Nigeria experienced in the early part of the 2010s unfairly benefited non-poor Nigerians. Consequently, more than 93 million Nigerians still live in poverty, with at least three million sliding into extreme poverty between November 2018 and February 2019 (World Bank, 2022).

Self-Assessment Exercise 1

List 5 ways poverty affects health.

2.4 Health Problems and the Economy

Major causes of death and illness – Perinatal, infectious, and parasitic illnesses are responsible for 75% of infant deaths. This illnesses can be attributed to poverty. Infectious diseases and parasitic diseases are responsible for 71% of deaths of children aged one to four and 62% of deaths in children aged

five to fourteen. The typical African child under five years has five episodes of diarrhoea per year, it also accounts for 25% of all childhood illness and 15% of admissions in health facilities. Vaccine preventable diseases are the causes of the deaths of 20% of all children in Africa. Maternal mortality rates in Africa are higher than anywhere else in the world. The heavy burden of ill-health in Africa is a reflection of the level of poverty in the continent. The effect of poor health goes beyond physical pain and suffering; Learning is compromised, returns to human capital diminish, and the environment for entrepreneurial and productive activities is constrained. Poor health imposes immense economic costs on individuals, households, and society at large.

A household survey in Cote d'Ivoire showed that 24% of the adult labour force experienced an illness in the previous month to the study, 15% became at least temporarily inactive. The workers on average lost nine full days of work and the cost of treating them amounted to 11% of their normal monthly earning. In Nigeria, Guinea worm disease temporarily incapacitated 2.5 million Nigerian in 1987. The Cost-benefit study revealed the net effect of the disease was to reduce rice production by $50 million and it was estimated that the benefits of a worm control programme would exceed its costs only after 4 years. These studies show how ill-health further worsens sufferers' economic state. In view of the demonstrated importance of human capital to economic progress, a country cannot attain high level of economic development with a population burdened by high infant and maternal mortality, pervasive illness of its workforce and low life expectancy.

Economic status of an individual, community, and country is related to the health of the individual or its people, though wealth does not necessarily bring health. A buoyant economy can create the enabling environment for health. A poor economy show features of poor housing, inadequate food and nutrition, poor water supply, inadequate environmental sanitation, and low level of education, low affordability of health care.

AIDS is a cause of deaths and Illness in developing countries which has heavy toll on economy of countries. Prevalence of AIDS in sub-Saharan Africa countries remains high. In hard-hit African countries the active age group is most affected. Deaths in this age group affect skilled manpower and professionals which take a heavy toll on countries. Malaria is endemic in most of sub-Saharan Africa and it appears to be worsening in much of Africa and results in high childhood morbidity and mortality. The cost of treatment of malaria in most countries when put together is enormous. This money would

have helped families, communities and the country at large to improve on quality of life. Absenteeism from work among adults affected by malaria is also high, this affects productivity. From the examples described one can appreciate how poor health imposes immense economic cost on the individual and the nation.

Some Health Effects of Poverty
The health effects of poverty include:

- Poverty creates hunger which in turn leaves people vulnerable to diseases.
- Poverty denies people access to reliable health services and affordable medicines
- Poverty denies people access to prevent health care. For example it denies poor children access to immunization.
- Poverty creates illiteracy which eventually make people less informed about health risks
- Poverty force people to live in environments that make them susceptible to certain diseases

One of the barriers to health care for the poor is the time it takes to get treatment. Time is a resource since the time taken away from work may mean lost income.

Self-Assessment Exercise 2

What are the ways poverty affect health of a person?

2.5 Improved Economy leading to Improved Health
Economic developments will provide enabling environment that will reduce disease burden and deaths in the following ways:

Safe water and sanitation: Poor sanitation and lack of safe water contributes immensely to morbidity and mortality in developing countries. Studies have shown that improvement in excreta disposal reduced diarrhoea morbidity by 22 – 36%.

Food and Nutrition: Malnutrition underlies more than one-third of infant and child mortality in rural and urban areas of many African countries. Inadequate quality and quantity of food intake causes growth failure, decreased immunity, learning disabilities and reduced productivity. Increase in income of poor families is likely to lead to increased food consumption. Countries with strong economy are likely to provide an environment where its citizens get good income that can help improve household food security.

Housing: Some diseases in developing countries are attributable to poor housing. Poor housing results in overcrowding, poor environmental sanitation, poor ventilation, cohabiting of man and animals among others.

Education: Countries with good economy are likely to invest in education. Education of people, particularly female education usually brings about informed choice and right decision that relates to individual's health or family health. Educated women marry and start having children later, make better use of health services, and make better use of information that will improve personal hygiene and health of their children.

Health infrastructure and equipment: Countries with buoyant economy are likely to incest in health infrastructure and equipment. Where there is wide coverage of the population with health facilities, geographical access to these facilities can improve on the health of people. Physical proximity to health facilities is only the beginning of effective health care coverage. A facility that is near people's homes will have little value if it lacks basic equipment. Money is needed to procure necessary equipment and for maintenance of these equipment.

2.6. Summary

In this unit you have learn about the effect of poverty on ill health and how ill-health precipitate poverty. At the level of nations, illness reduces productivity and affect the economy. Economic development also provides enabling environment to reduce poverty and reduce illness.

As good health is crucial to protect the family from poverty, so is better health is central to poverty reduction. Improving the health of the poor must become a priority, not only for public health but also for other sectors of development. The best cure for the various infectious diseases that plague developing countries is economic growth and broad-based development.

2.7. References/Further Readings/Web Resources

Olayiwola, S. O., B. L. O. Kazeem and S. O. Olusanya (2021) Public Expenditure and Income Growth in Nigeria: A Vector Autoregressive Analysis. J. of Man. and Soc. Sc., 10(3)

Fountain University,
World Bank (2022) Nigeria Poverty Assessment 2022 a Better Future For All Nigerians**.** The World Bank 1818 H Street NW Washington DC 20433. www.worldbank.org
Register A. M., C.A., Grimes (2000). Economics of Social Issues. 14th Edition McGraw-Hill. USA
Drummond M.F. (2005) Methods for the economic evaluation of health care programmers, Oxford University Press, ISBN 0-19-852945- 7.

2.8 Possible Answers to SAEs

Answers to SAEs 2

- Poverty creates hunger which in turn leaves people vulnerable to diseases.
- Poverty denies people access to reliable health services and affordable medicines
- Poverty denies people access to prevent health care. For example it denies poor children access to immunization.
- Poverty creates illiteracy which eventually make people less informed about health risks
- Poverty force people to live in environments that make them susceptible to certain diseases

UNIT 3 HEALTH AND GROWTH

Unit Structure

3.3. Growth and Development

3.4. Economic Growth and Health

3.5. Health Expenditure and Health

3.6. Summary

3.7. References/Further Readings/Web Resources

3.8. Possible Answers to Self-Assessment Exercises (SAEs) within the content

3.1 Introduction

This unit looks at some questions about the nature of growth, the nature of health, and how the two interact. This is a very complicated area, but we try to give it a short and simple treatment. On a day-to-day level, health economists rarely deal with such 'big' questions. However, it is helpful to be aware of the general conclusions that have been drawn by a number of cross-country and historical studies. This unit will shed light on the relationship between health and growth, economic development and economic growth and the implications of economic development on health.

3.2 Learning Outcomes

By the end of this unit, you will:

- Learn about economic growth and economic development.
- Understand the health implications of economic development.
- Learn about the interactions between economic growth and economic development.

3.3 Growth and Development

For a long time, Development and Economic growth were used interchangeably. Although the two are closely related, they are, however, different. Economic growth can be defined as an increase in a country's productive capacity, identifiable by a sustained rise in real national income over a period of years. The main differences between growth and development are as follows:

(i) Development encompasses the total well-being of the individual, a community or a nation, while economic growth is concerned with the increase in per capita earnings of the people making up the nation.

(ii) Economic growth is one characteristic of development, yet development must not be measured by the rate of economic growth. It is possible for a country to experience economic growth without becoming development. A country, for example, may acquire a great wealth from its mineral deposits, but have a low level of health services. This is due to the fact that the wealth goes into the hands of a very small minority who might squander it on luxury goods instead of establishing a viable infrastructure.

(iii) Development is concerned with the total person, his economic, social, political, physiological, psychic and environmental requirements. If one of these is not fully cater for, development has not been achieved.

Measurement of Economic Development

The measurement of development has presented social scientists with a problem of finding the suitable tools and techniques to do so and of interpreting the results of such measurements. Several suggestions have been presented for measuring development. One line of research has suggested the use of social indicators. The purpose of these is to measure the well-being of the population by examining factors such as health and nutritional status, level of education, housing conditions and so forth. However, it is easier to calculate GNP, per capita incomes and growth rates. As a result, in most reports these variables are used as indicators of development. Economic development, in addition to a rise in per-capita income, implies fundamental changes in the structure of the economy characterized by:

(a) Rising share of industry, along with the failing share of agriculture in GNP and increasing percentage of people who live in cities rather than the countryside.

(b) Passing through periods of accelerating, then decelerating population growth, during which the age structure of the country changes dramatically.

(c) Changes in consumption patterns as people no longer spend all their income on necessities, but instead move on to consume durables and eventually to leisure-time products and services.

(d) Meeting the needs of the present without compromising the ability of future generations to meets their own needs (sustainability).

(e) Participation by the citizens of the country in the process as well as the benefit, While economic development and modern economic growth involve much more than a rise in per capita income, there can be no development without economic growth.

Self-Assessment Exercises 1

Growth and development are intertwined, but there can be no development without growth, explain.

3.4 Economic Growth and Health

The commonly used definition of health is the World Health Organization (WHO) one: 'Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity (WHO, 1993). This positive conception of health has radical implications. 'Complete social well-being' suggests housing, jobs, civil rights – almost anything. It is clearly a normative statement, rather than one that can be implemented in the short term. Growth is interpreted in more varying ways. For a mainstream economist, growth means an increase in the goods and services produced by a society, which can be measured in various ways. The most commonly cited indicators are gross domestic product (GDP) and gross national product (GNP). GDP is the value of all the goods and services produced in a country, plus its exports and minus its imports. GNP is similar, but includes rents from factors owned abroad (such as repatriated profits from overseas factories), minus the equivalent payments to foreigners for factors which they own in the home country. These indicators are relatively easy to use, but do not tell us about welfare in that society. For example, GDP may increase, but if it accompanied by an increase in inequality of income distribution, the society may be less 'well off'. This and other criticisms of these narrow indicators has motivated the search for an index of 'development', which incorporates features such as income distribution; levels of education and skills; health status measurements; gender imbalances; and political representation. The Human Development Report, produced annually by United Nations Development Programme is a good example of a broader index. Similarly, environmentalists have put together indexes which value natural resources and reflect the extent to which these are being maintained. If an economy is growing, in the narrow economic definition of growth, what impact is that likely to have on health? In general, we would expect that economic growth will contribute to better health and that better health will

contribute to economic growth – i.e., that there is positive relationship between them. In terms of the impact of the economy on health, the negative effects are well documented. Poverty at the household level often leads to poor diet, poor housing and insanitary conditions. This in turn encourages the spread of diseases. Poverty can also induce individual or group attitudes which reduce life expectancy. Economic stagnation or decline also reduces the resources available to governments to invest in public health programmes or poverty mitigation. However, economic growth on its own does not guarantee improvements in health status development. How growth takes place, and how the benefits of growth are distributed and re-invested is crucial. How is public spending used? And within holds, who controls the resources and what are their priorities? There is also one group of diseases which increase as 'development' progresses: diseases of affluence, such as cancer, heart disease, stress-related problems and depression. These are encouraged by a number of facets of modernity, such as work patterns, social fragmentation, obesity and increased consumption of drugs, such as cigarettes and alcohol.

Many developing countries are suffering a 'double burden of disease', with continuing high rates of 'old' diseases, such as malaria and tuberculosis, and a growth in the 'new' diseases such as cancer and heart problems. Good health prolongs life. Where there is productive working life, the economic effects should be positive. Where it is old age, it increases the ratio of dependants to working population and creates a financial burden. The impact on population size is even harder to predict. Reductions in infant mortality rates would be expected to reduce fertility after a period, on the assumption that families aim for a target number of surviving children. This phenomenon, known as demographic transition, has also been connected historically with economic development, changing employment patterns and advances in education.

Health Implications of Economic Development

The associations between health and national development are complex. The interaction is a two-way phenomenon with health being both influenced by and influencing economic development. Improved health has been considered solely a result of economic growth, a part of the product of growth rather than one of its causes. Some development experts have maintained that health should have low priority in development funding and have tried to justify their opinions with comments such as "only a rich nation can afford the programmes to assure its population's health", or "a poor nation cannot afford improved health". The concern of development planners is accentuated by the fact that during the demographic transition, lower death rates are often associated with sustained high birth rates which

results in rapid population growth. While the supply of labour may increase as a result of improved health and reduced death rates, there may be no corresponding gain in per capita output. Thus, if economic growth is too slow to absorb the additions to the labour force associated with expanded health programmes, greater unemployment may result. Thus, improved health in poor societies can be postulated to produce larger populations, greater poverty and ultimately deterioration in health. However, other development planners and economists are more optimistic regarding the impact of health and nutrition programmes on economic growth. There are three different ways by which improved health programmes can accelerate development.

- Improved health may increase productivity or efficiency of the labour force leading to greater output and reduced cost per unit of output
- Better health conditions may serve to open new regions of a country of settlement and subsequent development.
- Attitudinal changes towards achievement and entrepreneurship may be linked to health and nutrition programmes.

This linkage has a significant importance to stimulate entrepreneurship in poor countries. It is apparent that where conditions are worst, relatively simple and low cost health programmes can produce dramatic reductions of disability of the labour force. In these situations major increments in productivity are apparent. For instance, in the Philippines, a survey of major enterprises indicated a daily absenteeism rate of 35 percent, attributed largely to malaria. After initiation of an anti-malaria program the rate of absenteeism was reduced to 2-4 percent. Although one could argue that economic growth has to accelerate the eradication of poverty, many economists felt that its impact occurred too slowly. In other words many end not to believe in an instantaneous trickle-down effect of economic growth. Subsequently, the basic needs approach, was advocated; its aim was the direct fulfillment of basic needs such as health, clothing, sanitation, shelter, nutrition and education.

Major Determinants of Poor Health

The following are some of the main determinants of poor health which have direct or indirect interdependence with economic development:

- Rapid population growth implies an increased need for medical and other social services
- Malnutrition
- Sanitary conditions and inadequate shelter

• Education

It is argued that health status improvements are attained at the expense of fixed capital entailing a smaller economic growth. That is, the investment funds that could have been used for the growth of the economy at large are to be used for investments in the health service sector which has in part a consumption character. Some argue, however, that investment in basic needs, such as in the health service sector, are investments in the health service sector which has in part a consumption character. Some argue, however, that investment in basic needs, such as in the health service sector, are investments in human capital which in turn is growth promoting. Although some tend to conclude that there is a positive relationship between health and economic development, this does not prove that improvement of the health service sector is a sufficient condition for economic development. On the other hand, a better health status does not guarantee a faster economic growth. The following conclusions may be drawn from the discussions of the relations between health and development.

1. Development is not a simple process. It is a complex intermingling of economic, social, environmental, physiological, psychic, cultural and political factors.

2. Development is linked not just to the improvement of economic indicators or the attainment of basic needs, but with wider aspirations such as high health status, and with social well-being and change. Development process embraces both the productive and social sectors of the economy.

Self-Assessment Exercises 2

Economic development is a process, what are the necessary situations for a given country to be considered that it is in this process?

3.5 Health Expenditure and Health

Within the health sector, can we assume that more spending will produce more health? The answer has to be: it depends on how it is spent. Countries can be structured into four categories: those that are spending more than expected on health and achieving higher levels of health; those that are spending more and achieving less than expected; those that are spending less and gaining more; and
those that are spending less and achieving less. There is no clear pattern – no necessary link between spending more on your health sector and having better health as a nation. The US is a good example: it spends more than any other country on health, yet has worse health indicators than most other OECD (Organisation for Economic Co-operation and Development) countries. One explanation is that its

system of private health insurance has encouraged cost escalation, while leaving a large minority uncovered. There are other factors related to other determinants of health. At the other end of the spectrum, Sri Lanka managed for many years to maintain social development indicators than expected for its level of national income by pursuing policies to promote health, education and fairer income distribution. Maintaining this investment over the long term, in the absence of economic growth, is very difficult. While there may be no clear relationship between expenditure and effectiveness, there is evidence that as a country's income levels rise, its share of expenditure on health will increase too. Average expenditure on health in developing countries was about 4.7 per cent of GDP; by contrast, OECD countries were larger spending double that at 9.2 per cent of their GDP. There is also a tendency for the proportion of health care funded out of public sources to rise as income levels rise. This is significant not only in terms of equity and access to services, but also because public finance is more likely than private to pay for valuable public health interventions. Health care in aggregate is what economists call a luxury good: the higher your level of income, the more you want to invest in your health. This is partly because rising income and education levels lead to increased awareness of health needs; and partly because of cost escalation in health systems where costs are borne largely by third parties (such as insurance companies or governments), rather than individual users. This makes it all the more important to ensure that health systems are organised to produce maximum benefit for the money invested.

3.6. Summary

This unit discusses health and growth in which growth and development, economic growth and development and health expenditure and health are examined. Many contentious issues about health, poverty and growth are also discussed. These issues were concluded to remained controversial because of inherently economic, social and cultural values differences in different countries.

Health and growth is a complex area, to which this module gives a simple introduction. There should be a positive relationship generally between economic development and health, though the pattern of development and distribution of its benefits will matter as much as growth itself. Ill-health is strongly linked to household poverty, so that growth which favours the poor will be the most effective in improving health. There are many channels for investing in health. Which one is most cost-effective in producing better health will depend on the context. Spending on health care is not inherently a good thing, although it may be regarded as such in countries where absolute levels of expenditure are too

low. What is important is the productivity of health expenditure. Typically this will be higher in poorer areas than in rich, and will be higher for public expenditure than for private. Many developing countries face challenges on all three levels: first, to move along the life expectancy/GDP curve through socio-economic development; secondly, to shift that curve to the left by investing in effective health technologies; and, finally, to 'join' the curve (for low performers) by improving the organisation of and access to services.

3.7. References/Further Readings/Web Resources

Bowling, A. (1997) Measuring Health: A review of quality of life measurement scales, second edition, Open University Press, Buckingham.

Briggs, A. H. , Gray, A. M. (199) Handling Uncertainty When Performing economic evaluation of health care interventions: Health Technology Assessment 3 (2).

Folland, Goodman Stano, (2001) the Economic of Health and health Care, third edition.

Jamison, D. (1998). Poverty, inequality and health. Presentation to DFID Health and Population Day,
13 October 1998

3.7 Possible Answers to SAEs

Answers to SAEs 1

Economic development, in addition to a rise in per-capita income, implies fundamental changes in the structure of the economy characterized by:

1. Rising share of industry, along with the failing share of agriculture in GNP and increasing percentage of people who live in cities rather than the countryside.

2. Passing through periods of accelerating, then decelerating population growth, during which the age structure of the country changes dramatically

3. Changes in consumption patterns as people no longer spend all their income on necessities, but instead move on to consume durables and eventually to leisure-time products and services

4. Meeting the needs of the present without compromising the ability of future generations to meets their own needs (sustainability)

5. Participation by the citizens of the country in the process as well as the benefit, While economic development and modern economic growth involve much more than a rise in per capita income, there can be no development without economic growth.

Module 3: Health Care Financing

People have been migrating and trading throughout human history and these have created interactive networks that connect the different parts of the world and produce dependent economic relationships. In this module, we discuss this global interaction, the history of globalization, international trade and international financial flows. The specific unit topics are

Unit 1:Health Financing

Unit 2:Health Insurance

Unit 3:Health Care Financing in Nigeria

Unit 4:National Health Insurance Scheme in Nigeria

Unit 1 Health Financing

Unit Structure

1.1. Introduction
1.2. Learning Outcomes
1.3. Options in health care Financing
1.4. Direct Government Financing
1.5. User Charges (Out of pocket expenses)
1.6. Community Financing
1.7. Health Insurance
1.8. Foreign Aid
1.9. Voluntary Donations
1.10. Summary
1.11. References/Further Readings/Web Resources
1.12. Possible Answers to Self-Assessment Exercises (SAEs) within the content

1.1 Introduction

Health is no longer and cannot be regarded as a by-product of economic development but a precondition for it. There is a growing financial need to fund health care in almost all nations, with resources becoming limited because of the global economic recession, health financing now take a major focus of attention. Health costs have been increasing because of the aging population with increased health care needs, increased use of technology, new and expensive treatment modalities and increasing administrative costs. Obtaining more finance for the health sector is a major preoccupation for most governments in low, middle and high income countries. It is increasingly recognised that the state cannot finance all, or even the majority, of health care out of the general government budget. At the same time out of pocket payments have severe efficiency and equity implications. Other options for producing extra funding, including community finance and medical savings accounts, have been tried in a variety of countries. While these experiments have had some success it must always be

recognised that all finance is derived from the population who, often, have access to very limited income. Any increase in funding for medical care implies a reduction in expenditure on other, both health and non-health related, commodities demanded by the population.

1.2 Learning Outcomes

On completion of this unit, the learner will be able to:

- Describe what health care financing is
- Describe the major options in health care financing
- Learn about health insurance

1.3 Options in Health Care Financing

Health care financing can be broadly divided into Public and Private financing. Examples of public health financing include direct government funding, social insurance while examples of private health financing include user charges, private health insurance, community financing and donations. These may be grouped into 5 major categories: direct government financing, User charges (Out-of–pocket expenses), community financing, health insurance, donors (foreign aid). Each of these are discussed in subsequent units.

Self-Assessment Exercises 1

List the broad category of health financing in Nigeria.

1.4 Direct Government Financing

Direct government financing of health activities is the most widespread approach to health financing in the developing world. Government either provides periodic allocations from general government revenues or assigns the proceeds of a designated tax to the health sector or both. Because national governments are responsible for overall health policy and strategic planning for health, it might be assumed that governments are also the major sources of healthcare financing and health expenditures. We know in reality that government's share of total health expenditure varies widely all over the world. Public revenues are obtained from various sources and then generally are added together, in which case the source of financing for a particular public programme cannot be identified. However,

in some cases governments dedicate the proceeds of a particular tax instrument to the health sector. For example in several countries in the Americas and in Asia, lotteries have been organized to benefit social welfare programmes such as health care, primary education, etc. Direct government funding of health activities alone has been inadequate in many countries particularly in developing countries. The World Health Organization (WHO) recommends that all levels of government should allocate at least 15% of their total budgetary expenditure to health care. In Nigeria, government financing of health care is inadequate. The reasons African governments have committed less money to health than other countries include:

- Economic condition of some of the countries, since the expenditure on health in these countries is largely from general tax revenues, including duties on imports and exports
- Structural Adjustment Programme in some of the countries which is responsible for cutbacks in government expenditure on social services
- Some countries spend heavily on other sectors like defense to the detriment of the health sector whereas there is contradictory evidence that defense expenditures contribute positively to economic growth or sustainable development.

Self-Assessment Exercises 2

Do you consider government expenditure on health in Nigeria adequate? If No, What are the factors that make you consider expenditure on health by government inadequate.

1.5 User Charges (Out of pocket expenses)

User charges is also known as out-of –pocket expenses. Another way of financing health care is by charging patients. These charges take a variety of forms. Fees for medical services are diverse. The definition of the item on which fees is to be charged varies widely. A fee may be required for an encounter with the health care provider, an episode of illness or a fixed number of contacts with the health care system. A single encounter may be broken into items like laboratory test, drugs, procedures, etc. The fees for each of this vary. There may be a uniform priced charged for all the patients or with the exception for the poor, children or some are exempted from paying. In some places, there are sliding scales of rates applied such that persons of lesser means pay lower fees.

User charges have the advantage of providing a link between financial responsibility and the provision of services. This link has generally enhanced willingness to contribute to the cost of health programmes and has encouraged both consumers and providers to be cost conscious. In addition user charges help to control the use of health services by imposing financial disincentives to consumers.

You know that when people pay for a service they are careful since it costs them something but if they do not pay then they may not be bothered about careful use of such service. When user fees are low or not practiced, consumers have no reason to pay attention to costs. User fees are also a tool for reinforcing the referral system. In some countries people who are not referred from the lower levels are made to pay more than those referred. User fees are becoming increasingly
common in Africa. This method of cost recovery directly addresses the problem of under-funding of government health facilities. The administration of user charges throws some challenges in developing countries where it is observed that the largest reduction in the use of services is as a result of charges for health services particularly among the poor. You are familiar with this problem of the poor who are not able to afford health care because of user fees. This call to question the need for equity. However, some people are of the opinion that user fees that result in availability of services is better and more people are cared for than a free health service with services not available because money is not available. The arguments in favour of User Charges include:

- Fees make the patient more conscious of the services consume, thus strengthens self caring
- User fees however small will make up some level contribution to the health financing.
- Keep services running and improves quality of care and confidence in the services

The arguments against user fees are:

- Fees collection and its management requires management capabilities which may not be available at some lower levels of health care delivery
- Revenues collected are not usually enough compared to cost of providing services
- Introduction of user charges reduces utilization rates

The user charges can lead to greater use of health services where there is:

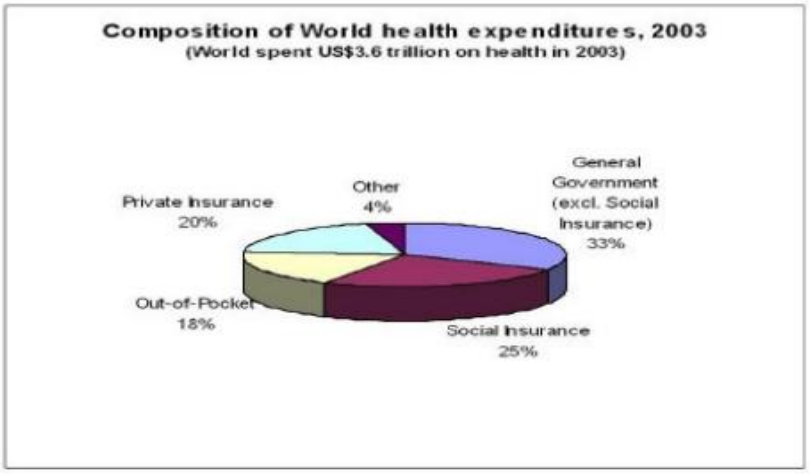
- Phased in rather than sudden increase in prices (Gradual introduction of fees)
- Greater accountability of the provider to the population – where consumers find that quality of service received is justified when compared with fees paid.
- Local management of resources (decentralized system)
- If patients perceive they will have higher quality of care
- Service received can compete favourably with services elsewhere.

Garland defined three relations between charging for health services and the population thus:

a) Contributive Capacity – This is defined as the money an average family can spend for health in a defined period. This varies widely, some studies in rural households' show that the share of the budget households allocate for health ranges between 2.5 – 6.5%.

b) Financial Capacity – This is defined as the availability of cash by the respective household, in that very moment when cash is needed for medical treatment. It is known that financial capacity increases after food harvest, at month ends when salaries are paid. It is also common observation in some developing countries that financial capacity decreases after major festivities like Christmas and Sallah. However in Africa, the potential family solidarity in the event of ill-health is high which translates to some form of assistance.

c) Institutional relationship – Target families and communities can organize and have some relationship to provider of health service. It can be in form of financial contributions from users. This can provide solutions for those who can not pay immediately and those who can not pay at all.



Source – World Health Organization

Self-Assessment Exercises 3

List the advantages and disadvantages of user fees as an option in health care financing.

1.6. Community Financing

The emphasis of community support in most developing countries has been on providing resources, either financial or material and human for the establishment or improvement of health and sanitation infrastructure e.g. Health facilities, latrines, wells, etc. Community financing of health activities requires Community organization. The most serious problems have arisen in trying to sustain contributions to pay for the recurrent costs of programs. People have frequently been unwilling to continue to pay for programs from which they were not benefiting at the time. Greater reliance on community financing of health care has been advocated for several reasons, which include:

- Individuals / households spend a lot of money purchasing modern and traditional health care from the private sector. It would not be additional burden if this expenditure were redirected towards services that have a greater impact on health.
- Community financing will attract other unexploited resources like labour, land and contributions in kind.
- People will readily use and cooperate with services that they have helped to create and later help to maintain.
- It is a suitable mechanism for mobilizing contributions from the self-employed.

Community financing cover the following:

- Paying at full or preferential rates for health facilities organized through community efforts. The crucial feature is that the community rather than established market forces or individual negotiation has approved this form of payment.
- Paying for socially organized voluntary community insurance schemes e.g. prepayment for services that may be linked to income or production or a health care scheme for which standard charges are laid down.
- Giving of gifts in cash, labor, or kind for which no wholly individual benefit is expected but from which the donor may partake of the collective benefits.
- Paying for the creation and utilization of community capitalization schemes for the promotion of health care such as nutrition and sanitation funds from which grants or loans are given to members for health related activities.

Self-Assessment Exercises 4

List the benefits of community financing of health.

1.7 Health Insurance

Health insurance is a system in which prospective consumers of care make payment to a third party in the form of an insurance scheme, which in the event of future illness will pay the provider of care for some or all of the expenses incurred. Health insurance is a mixed source of finance as it often draws contributions from both employers and employees and sometimes government. Contributions to such schemes are often mandatory. There are three main types: Government or social insurance maybe compulsory or voluntary often employed in the formal sector. Contributions based on individuals income not on actual risk.

Private insurance – coverage through third-party payer institutions. Employer based insurance-employers or parastatal or private bodies serve as the third party payer or collection agent. Health insurance diversify sources of revenue of the health sector, individuals play some role in paying for their own health care and to spread the burden of health costs over time and across a wider population which will reduce risk. A variety of insurance mechanisms can be used to help finance the health services rendered to individuals and families. These entails collection of funds directly from potential

users of the health care system, either to pay the providers for their services or to reimburse users in full or in part for payments made to providers. Membership of health insurance scheme can be voluntary or compulsory. Government, agencies, profit making organizations, or non-profit making organizations such as, cooperatives or benevolent societies can operate these schemes. The insuring agency may employ the providers of health care and own facilities (the direct method) or contract with health care providers – public or private (the indirect method).

The advantage of insurance is that it converts unpredictable future health expenses into payments that can be budgeted for in advance. The agreements convert large, infrequent and unpredictable expenditures into smaller, periodic payments. These payments are collected to a pool of resources that can be drawn to meet the needs of a participant who encounters misfortune of ill-health. Nearly all developed countries that now provide the same right to health care to the whole population went through an evolutionary stage of voluntary followed by compulsory health insurance.

Compulsory insurance – These schemes are generally financed by employers and or employees contributions calculated as a percentage of pay roll. Compulsory insurance schemes may cover the self-employed as well on a compulsory or voluntary basis. However, it is extremely difficult even in developed countries to collect compulsory contributions from the self-employed.

Voluntary insurance – People may be allowed to be voluntary contributors to a social security scheme, run by government or statutory agencies, which is compulsory to others. Alternatively they may insure with profit or non-profit agencies or they may join a group scheme. Insurance schemes typically require the patient to make an initial payment for care (deductible) before applying for benefits and many also require the patient to pay a small share of the additional amount (co-payment) – these two devices are intended to discourage overuse of health care services. Some insurance programme have standard rates for common procedures, and have defined a number of services for which payment is made. These are intended to control the claims against the insurance fund.

Self-Assessment Exercises 5

Discuss the three main types of health insurance

1.8. Foreign Aid

Donors are important financiers of health care in Africa; especially where the government has been unable to meet health needs due to revenue shortfalls. During the 1980s bilateral donors accounted

for 62% of total health assistance in Sub-Saharan Africa, while multilateral agencies provided 32% and non-governmental agencies 6%. External financing is generated mostly through development–oriented institutions such as bilateral agencies, multilateral organizations and banks e.g. UNICEF, WHO, UNDP, World Bank, EEC, and USAID etc. Financial cooperation is generally channeled through a central authority in the recipient country such as Ministry of Finance or Ministry of National Planning. In some cases funds may be routed directly to particular ministries, agencies or NGOs. While NGOs in financial terms may be small in most cases, their potential for mobilizing people and strengthening their self-reliance cannot be overlooked. Foreign Aid has played invaluable role in public expenditures in developing countries but has some **negative effects** like:

- Emphasis on vertical programmers
- Sustainability problem
- Priority program often determined by donors and not recipient countries
- Some donor funding of programs are out of proportion to total health needs
- Poor coordination of efforts by various external agencies funding the programmers.

Self-Assessment Exercises 6

Why is foreign aid an important source of health financing?

1.9. Voluntary Donations

These are contributions usually from individuals or groups within the country. Philanthropists may make cash donations and/or donations in kind (buildings, equipment, etc). Religious groups also fall into this category. Some groups run non-profit making health services.

Other private sector involvement are:

- Medical services run for employees by private or quasi government enterprises.
- Salaried government physicians engaged in private practice
- Physicians engaged in full- time private fee for service practice
- Chemist shops/Pharmacies
- Private for profit hospitals and clinics
- Indigenous or traditional practitioners and quacks

The above are some forms of health care financing which may be profit oriented but then contributing to health care financing.

1.10. Summary

In this unit you have go through the major options in health care financing which include; direct government financing, user charges (out-of-pocket expenses), health insurance, community financing, You have also see the advantages, disadvantages of each option of health care financing.

There are forms of health care financing mainly public and private. Health care financing options vary form one country to the other. There can be variations even within countries. Government alone can no longer bear the total cost of health care; hence other options of health care financing are getting attention. Each of the options in health care financing has its merits and demerits.

1.11. References/Further Readings/Web Resources

Financing District Health Services. International Workshop held 11th – 15th April 1994 in Nairobi Kenya. Published by GTZ Eschborn, Germany.

GTZ (Deutsche Gesellschaft fur Technische Zusammenarbeit) Workshop Report. http://www.paho.org/English/DD/PIN/ptoday18_sep05.htm

World Bank (1994) Development in Practice Better Health in Africa: Experience and Lessons Learned. The International bank for Reconstruction and Development / The World Bank.

1.12. Possible Answers to SAEs

These are the possible answers to the SAEs 4 within the content.

1. Individuals / households more money purchasing modern and traditional health care from the private sector. These expenditures will be redirected to services that have a greater impact on health.

2. Community financing will attract other unexploited resources like contributions in kind.

3. People will readily use and cooperate with services that they have helped to create and maintain.

4. It is a suitable mechanism for mobilizing contributions from the self-employed.

UNIT 2 HEALTH INSURANCE

Unit Structure

2.1 Introduction

Everyone needs medical care at some point in time. This may be in the form of preventive care or treatment for sicknesses and injuries. With medical care comes payment of fees in one form or the other. Affordability of such fees at the point of use may be difficult. Health insurance provides a form of financing which make payment for the fees relatively easier. Health insurance is an institutional and financial mechanism that helps households, individuals and organizations to set aside financial resources to meet costs of medical care in the event of illness. The advantage of insurance is that it converts unpredictable future expenses into payments that can be budgeted for in advance. From this you will observe that health insurance scheme option in health care financing significantly differs from user-fees which in some places are described as 'cash and carry'.

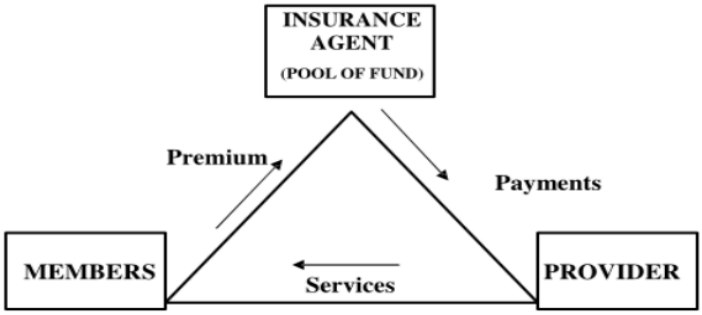
2.2 Learning Outcomes

By the end of this unit, you will be able to:

- Understand what health insurance scheme means
- Know the various types of health insurance scheme
- Know some of the problems that can be encountered in health insurance scheme

2.3 Definition of Health Insurance

Health insurance is a system in which prospective consumers of care make payment to a third party in the form of an insurance scheme, which in the event of future illness will pay the provider of care for some or all of the expenses incurred. Health insurance is a type of financing whereby the insurer pays the medical costs of the insured if the insured becomes sick due to covered causes, or due to accidents. The insurer may be a private organization or a government agency. Health insurance is an agreement between a person, who is called the policy holder, and an insurance agent. Insurance agents or carriers are organizations that offer financial protection in case of illness or injury and pays for the policyholder's medical treatment. The fundamental concept of health insurance is that it balances costs across a large, random sample of individuals. For instance, an insurance company has a pool of 1000 randomly selected subscribers with each paying ₦1000.00 per month. Fifty of them get sick that month while the others stay healthy, which means the insurance company, can use the money paid by the healthy people to treat the sick persons.



STRUCTURE OF HEALTH INSURANCE

Self-Assessment Exercise 1

Briefly describe the concept of health insurance scheme

2.4 History and Evolution of Health Insurance

The concept of health insurance was proposed in 1694 by Hugh the Elder Chamberlen. In the late 19th century, early insurance was actually disability insurance that covered cost of emergency care for injuries that could lead to disability. This continued until the 20th century where all laws in some jurisdictions in US regulating health insurance actually referred to disability insurance and patients were expected to pay for all other costs of medical care in a form of fee for service. Today health insurance schemes cover a wider area of health care to include the cost of routine, preventive, and emergency health care procedures. The origin of health insurance can also be traced to medieval

Europe when labour unions, associations of employers of labour and craftsmen formed guilds which in turn created funds to help members in times of need on account of illness. Although they started with cash benefit they later broadened the scope to request doctors to certify illnesses and paid them to provide health care for members. New incentives then came from employers with the scheme becoming compulsory as employers in specific high-risk industries such as mining, began to make employment often tied together with willingness to pay contributions. With these came the development of earnings-related contributions rather than risks-related contributions. This potential for such solidarity was exploited in Germany in 1883, Austria in 1887, Norway in 1902 and the UK in 1910. By the early 1930s compulsory health had been developed in most industrialized countries of Europe under the name of sickness and maternity insurance.

Self-Assessment Exercises 2

Write a short essay on the history of health insurance.

2.5. Types of Health Insurance Scheme

2.5.1 Private

Private health insurance is a contract between an insurance company and the customer and in the private sector. Private insurance can be for groups like companies, labour unions, professional association or for individuals.

Private: This is through employer owned on-sight health facilities or through contract with outside providers, contribution payable is based strictly on the needs of the individual i.e. the higher the health needs of the contributor the higher the payment.

2.5.2 Public Insurance

The public sector third party may be parastatal, insurance scheme, government, and social security and sometimes the providers.With the publicly funded health insurance the good and the bad risks all receive coverage without regard to health status, which eliminates the problem of adverse selection and amplifies the problem of moral hazard.

2.5.3 Social Health Insurance

Insurance program financed by government through tax revenues that guarantee citizens financial benefits for events which are beyond individual control, such as old age, disability and poor health. Payment is irrespective of the needs and is usually based on employment and income.

- Based on the principle of solidarity
- Contribution based on ability to pay
- Resources are pooled together among a large population

- It enhances security of each individual in the group. Higher income earners will subsidize those with lower income and those with lower health needs will subsidize those with higher health needs.

2.5.4 Community Health Insurance

A community based programme which normally operates in the rural areas and mostly localized e.g. health care scheme in Thailand, Tsonga in Kwara State, Nigeria.

Other types of HIS include

2.5.5 Direct

Here the Health Insurance Scheme builds or rents its own health care premises exclusively for the use of the insured persons.

2.5.6 Indirect

Here the scheme makes contracts with selected providers for the provision of defined services at negotiated prices, the authority rather than the insured persons makes the payment.

2.5.7 Reimbursement

The patient buys his own medical care in the private market and then sends the receipted bills to the insured who reimburses the insured person either for part of the full cost or on the basis of standard payment for a particular service which will normally be well below the prices actually paid.

Self-Assessment Exercises 3

Explain different types of health insurance scheme

2.6. Problems with health insurance

The problems with health insurance include

- Increasing cost of health care
- Some private insurance companies charge people at different rates based on their own personal health
- Some medical problems may not be covered by the scheme
- Health care recipient is not involved in negotiating the cost of care. Some health care providers have popular and unpopular ways of controlling these costs. Some providers may have different rates for the same procedure for those insured and those not insured.

The two main problems of health insurance are adverse selection and moral hazard.

Adverse selection - This refers to the tendency for only those who will benefit from insurance to buy it or participate in it. Adverse selection can leave an insurance company with primarily sick subscribers and will have the problem of balancing out the cost of medical expenses with a large

number of healthy subscribers. This is because unhealthy people are more likely to purchase health insurance because they anticipate heavy medical bills whereas those who consider themselves to be healthy may decide that medical insurance is an unnecessary expense; if they see a doctor once in a year and it costs ₦500.00, that is better than making monthly insurance of ₦600.00. The insurance companies too can deny those with medical history suggestive of a future heavy financial burden.

Moral hazard – This describes the state of mind and change in behaviour that results from the knowledge the health insurance will take care of medical bills and people therefore overuse medical care since they do not incur out-of –pocket expenses. Where health insurance is in practice, people who do not have insurance cover or are under-insured may wait for too long out of fear of high medical bills until the illness become life-threatening.

Self-Assessment Exercises 4

Describe likely problems of health insurance scheme from your view of our health system.

2.7 Summary

This unit gave a definition of health insurance and described the various types of health insurance which include private and public health insurance, direct and indirect health insurance, social insurance, community health insurance and reimbursement health insurance. The problems that can be encountered in health insurance scheme are described in this module. Also described are the two main problems in private health insurance which are adverse selection and moral hazard.

Health insurance is an option of health financing that is used in most developed countries and increasing number of developing countries are also practising health insurance scheme. It converts unpredictable future expenses into payments that can be budgeted for in advance. There are various types of health insurance scheme. The scheme now appear to be a sustainable way of financing health care and reduces the problem of 'cash and carry' health financing and this to a large extent reduces the problem of catastrophic health expenditure

2.8 References/Further Readings/Web Resources

Financing District Health Services. International Workshop held 11th – 15th April 1994 in Nairobi

Kenya. Published by GTZ Eschborn, Germany.
GTZ (Deutsche Gesellschaft fur Technische Zusammenarbeit)
Workshop Report. uhttp://www.paho.org/English/DD/PIN/ptoday18_sep05.htm
World Bank (1994). Development in Practice Better Health in Africa: Experience and Lessons Learned. The International bank for Reconstruction and Development / The World Bank.

2.9 Possible Answers to SAEs

Answers to SAEs 4

Adverse selection - This refers to the tendency for only those who will benefit from insurance to buy it or participate in it. Adverse selection can leave an insurance company with primarily sick subscribers and will have the problem of balancing out the cost of medical expenses with a large number of healthy subscribers. This is because unhealthy people are more likely to purchase health insurance because they anticipate heavy medical bills whereas those who consider themselves to be healthy may decide that medical insurance is an unnecessary expense; if they see a doctor once in a year and it costs ₦500.00, that is better than making monthly insurance of ₦600.00. The insurance companies too can deny those with medical history suggestive of a future heavy financial burden.

Moral hazard – This describes the state of mind and change in behaviour that results from the knowledge the health insurance will take care of medical bills and people therefore overuse medical care since they do not incur out-of –pocket expenses. Where health insurance is in practice, people who do not have insurance cover or are under-insured may wait for too long out of fear of high medical bills until the illness become life-threatening.

UNIT 3 HEALTH CARE FINANCING IN NIGERIA

Unit Structure

3.8. References/Further Readings/Web Resources

3.9. Possible Answers From Self-Assessment Exercises (SAEs) with the Content

3.1 Introduction

Health is fundamental to the socio-economic development of any nation. Nigeria like many other countries have its people health funded by government, but as result of the inadequacy of government funding several other options in health care financing are also in place. All tiers of government are involved in health care financing even though the level of health they fund differ. The proportional allocations of money to health sector out of the total budgetary expenditure by these tiers of government vary considerably. Effective use of the meager financial resources available to the health sector in Nigeria remains a problem and challenge.

3.2 Learning Outcomes

By the end of this unit, you will be able to:

- Understand the National Health Policy on health care financing
- Know about the roles of the different tiers of government in health care financing
- Be able to describe the various options in health care financing used in Nigeria
- Familiarize themselves with the pattern of health care expenditure in Nigeria.

3.3 National Health Policy on Health Care Financing

The 1988 National health policy declares that Federal and State Government shall review their allocation of resources to the health sector and within available resources give priority to primary health care, community resources are to be mobilized in the spirit of self-help and self-reliance. In the 1988 policy it states that efforts shall be made to redistribute financial allocation among primitive, preventive and curative health care services to ensure that more emphasis is placed on primitive and preventive services. Other highlights on health care financing include:

- Exploration of health insurance scheme
- User charges for curative services but subsidized preventive services
- Public assistance shall be provided to the socially and economically disadvantaged segments of the population
- Governments of the Federation shall encourage employers of labour to participate in financing health care services to employees
- Within the rights of individuals to participate in the economy of the nation, private individuals shall be encouraged to establish and finance private health care services in under-served areas.
- Within the concept of self-reliance, communities shall be encouraged to finance health care directly or find local community solutions to health problems through contribution of labour and materials
- Mechanisms shall be established to undertake continuing studies on benefit of various health programmes in relation to costs and inclusion of analysis of needs in terms of cost, material and personnel in all consideration of health technology and of the establishment and maintenance of health infrastructure.

Self-Assessment Exercises 1

List the major health care financing issues addressed by the National Health Policy.

3.4. Health Financing by Tiers of Government

Local Government

The provision of primary health care is the responsibility of the local governments within their local government areas. Each of the local governments are expected to provide the various components of primary health care (PHC). This include facilities, equipment and personnel. The local government provides funding for this levels of care.

State Government

The State governments provide secondary health care which is specialized care to patients referred from the primary health care through in-patient and out-patient services of hospitals for general medical, surgical, pediatrics patients and community health services. Specialized supportive services such as Laboratory, Blood Bank, Rehabilitation and Physiotherapy services are supposed to be available at this level. This type of care is expected to be at the level of districts, local governments and zonal levels of each State. In addition to the secondary health care service, the State governments also provide supportive PHC services to the local governments.

Federal Government

The Federal Government is involved in provision of specialized services through Teaching Hospital and other special hospitals which provide care for specific disease conditions or specific group of patients e.g. Orthopedic, Ophthalmic, Maternity and Pediatric Hospitals. This level of care requires big facilities, infrastructures and equipment as well as highly skilled personnel. This is financed by the Federal government though some State governments now get involved in provision of this level of care. In addition to this role, the Federal government also provide supportive and supervisory role to primary health care at the State and Local government levels.

Self-Assessment Exercises 2

Write briefly on what each tier of government finance in health care delivery and give examples

3.5 Options in Health Care Financing in Nigeria

Government Financing of Health Care

This option has been in place since the colonial period. From independence government continued to fund health care in the form of primitive, preventive and curative health care as described above. In the past, governments had free health care programmes where the government make health care free to its people and bear the cost of such care. The coverage of such health care was however grossly inadequate. In view of the very cost required to provide such free health care which some of the State government were unable to provide, the free health care programmes virtually became 'no' health care. Some particular health needs are still provided free by some State government e.g. free eye tests, maternal care, children care.

User charges

This option in health care has been in place over a long period though initially at a low scale but now increasing and now the most dominant in health care financing in Nigeria. This is with its advantages ad disadvantages. Affordability of cost of health care is a big problem to many Nigerians and this is affecting utilization of services. Unfortunately patients go for alternatives that are usually sub-standard in terms of quality of care.

Community Financing

In Nigeria there are several community based organizations. Some of these organizations engage in self-help projects which include health related activities. Some communities erect buildings for health centre. Some provide labour to augment health care financing in their areas. Communities are sometimes involved in preventive health care services in the form of digging of public wells, construction of public latrines. Some communities are however faced with poor contributions to sustain projects they had earlier embarked upon. At the same time some community projects that were completed and handed over to government are poorly maintained.

Health Insurance

The National Health Insurance scheme has been launched in Nigeria and is in its early phase of implementation. Most of the people currently enrolled on the scheme are public civil servants. The scheme with time will cover increasing number of people in the country. Private health care financing is also available in some urban settings in Nigeria.

Foreign Aid

Nigeria receives foreign aid from several International Agencies, bilateral government agencies. Some of these funds are channeled through the National Planning Commission. A number of International Agencies also channel funds directly to various levels of government, Non-Governmental Organizations and Religious groups.

Self-Assessment Exercises 3

i. Describe the various options of health care financing in the community where you work.
ii. List areas of differences in health care financing options in your community.

3.6 Health Care Expenditures in Nigeria

Total public health expenditures consist of expenses incurred in the provision of all forms of health care by all levels of government. Available data point to the fact that public expenditures in the health sector has been very low either when compared with those of other key sectors of the economy, such as education, agriculture, or when expressed in percentage terms in relation to the gross domestic product (GDP). Total government expenditure in relation to GDP ranged from 4.3–5.5% from 1998-2004. In percentage terms total Federal government expenditures fluctuated between 0.98% and 2.51% between 1980 and 1990. Recent data suggest an increase in percentage budgetary allocation to the health sector but still fall short of World health Organization recommendation of a minimum of 15% to the health sector.

While the health sector in the 70s and early 80s consumes between 2.0% and 3.0% of the Federal recurrent budgetary allocation, its share in the State and Local Government levels range from 10- 11% and 31- 40% respectively. Between 1998 and 2004 government expenditure on health as a proportion of total expenditure ranged between 3.1 – 7.1%. Total health expenditure reveals that at all levels of government; recurrent expenditures take the lion share. At the Federal level, the recurrent share of the health budget was between 64.8% and 70.0% between 1980 and 1990. Also on the average for State and Local governments 80.0% and 90.0% of the health budget is devoted to recurrent expenditure, personnel cost dominate the recurrent expenditure. User fees (out-of-pocket expenditure) is the dominant expenditure for health care in Nigeria. As a proportion of total expenditure on health, user fees ranged from 90.4–95.0% between 1998 and 2004. Federal allocation to Primary Health Care (PHC) has been less than 0.5% of recurrent expenditures. Although the proportion is still low, there is an indication that the policy emphasis on PHC has led to an increase in the level of its funding. Out of the total budgetary allocation to the health sector, a disproportionately high percentage is expended on recurrent expenditure to the detriment of capital expenditure. This is responsible for the rapid decline in standard of public health facilities, poor infrastructures and inadequate equipment for health services.

Table 3. 1: National Expenditure on health in Nigeria

A. RATIOS AND LEVELS	1998	1999	2000	2001	2002	2003	2004
I. Expenditure ratios							
Total expenditure on health (THE) % GDP	5.5	5.4	4.3	5.3	5.0	5.0	5.1
General government expenditure on health (GGHE) % THE	26.1	29.1	33.5	31.4	25.6	25.5	27.4
Private expenditure on health (Pvt THE) % THE	73.9	70.9	66.5	68.6	74.4	74.5	72.6
GGHE % General government expenditure	7.1	5.4	4.2	3.2	3.1	3.2	3.5
Social security expenditure on health % GGHE	0	0	0	0	0	0	0
Net out-of-pocket spending on health (OOPs) % Pvt THE	95.0	94.8	92.7	91.4	90.4	91.2	91.3
Private prepaid plans expenditure on health % Pvt THE	2.4	3.4	5.1	6.5	6.7	6.7	6.6
Externally funded expenditure on health % THE	13.1	13.8	16.2	5.6	6.1	5.3	4.6
II. Per capita levels							
THE per capita at exchange rate (US$)	16	17	18	19	19	22	26
GGHE per capita at exchange rate (US$)	4	5	6	6	5	6	7
THE per capita at international dollar rate	47	48	39	50	49	51	55
GGHE per capita at international dollar rate	12	14	13	16	12	13	15

Self-Assessment Exercises 4

Discuss the major features of health care expenditures in Nigeria

3.7 Summary

In this unit you gone through the health care financing from the perspective of the National Health Policy. The various options of health care financing in Nigeria has been discussed. This unit also helps you to understand the trend and pattern in health care expenditures in Nigeria and this will help you understand the current state of health facilities and services.

Health care financing is addressed by the National Health Policy. Adherence to the National Policy on health financing does not appear satisfactory. Government funds both preventive and curative health care but the gap in funding over the years has brought in other options in health care financing. Available data suggest that out-of-pocket expenses is the highest contributor to health care financing in Nigeria. Government funding of health care in Nigeria is below WHO requirement.

3.8 References/Further Readings/Web Resources

Alausa O.K., Osibogun A. Health care financing in a depressed economy – options for Nigeria. Nigeria Journal of Health Planning and Management, 1996, 1(2):37 – 40.

FMOH. The National Health Policy and Strategy to Achieve Health for all Nigerians. Federal Ministry of Health, Nigeria. 1998: 49 -50

http//:www3.who.int/whois/core/core_select_process.cfm?country.NGA

http//www.who.int/nha/country/nga/en/ 3-2-07

3.9 Possible Answers to SAEs

Answers to SAEs 1

1. Exploration of health insurance scheme
2. User charges for curative services but subsidized preventive services
3. Public assistance shall be provided to the socially and economically disadvantaged segments of the population
4. Governments of the Federation shall encourage employers of labour to participate in financing health care services to employees
5. Within the rights of individuals to participate in the economy of the nation, private individuals shall be encouraged to establish and finance private health care services in under-served areas.
6. Within the concept of self-reliance, communities shall be encouraged to finance health care directly or find local community solutions to health problems through contribution of labour and materials
7. Mechanisms shall be established to undertake continuing studies on benefit of various health programmes in relation to costs and inclusion of analysis of needs in terms of cost, material and personnel in all consideration of health technology and of the establishment and maintenance of health infrastructure.

UNIT 4 NATIONAL HEALTH INSURANCE SCHEME IN NIGERIA

Unit Structure

4.1 Introduction

Health Insurance Scheme is one of the health care financing options in Nigeria. The history of health insurance scheme in Nigeria is over 3 decades but not until 1997 that the scheme was officially launched. The implementation of the scheme in Nigeria is planned to be in phases commencing with pubic civil servants. Private sector involvement is incorporated into the scheme with the use of Health Maintenance Organizations (HMOs') to collect contributions from participants and also pay providers of services.

4.2 Learning Outcomes

By the end of this unit, you will be able to:

- To know the historical background of Health Insurance in Nigeria
- Know the objectives of the scheme and the health care covered by the scheme
- Understand how the scheme works.

4.3 Historic perspective

In Nigeria the first search for health insurance system started in1962 during the first republic. The federal government invited Dr. Halevi through the International Labour Organization (ILO) to look into starting an health insurance system in Lagos. Dr. Halevi supported the system but the Nigerian Medical Association opposed it. The civil war years, caused the matter to be shelved but was resuscitated by the National Council on Health in the early 80s. The Minister of Health, Admiral Patrick Koshoni, on the advice of the National Council of Health commissioned a study led by Professor Diejomaoh of the Nigerian Institute for Social and Economic Research (1984). This was followed by a feasibility study chaired by Mr. Yinka Lijadu of the National Insurance Corporation of Nigeria which found the scheme feasible, workable and desirable in Nigeria. Finally, in 1988, Professor Olikoye Ransome Kuti, commissioned the National Committee on Establishment of the NHIS, chaired by Emma-Eronini and recommended the capitation model, which is easy to run and almost tailor made for our health system and traditions. The United Nations Development Programme (UNDP) and International Labour Organization (ILO) consultants and others conducted their own studies in Nigeria to provide costing, draft legislation and implementation guidelines for establishing the scheme in 1992. Then the federal executive council, which had given its approval in 1989, directed Federal Ministry of Health in 1993 to start the scheme, which was launched in 1997, and signed to law in May 10, 1999 by the then Head of State General Abdulsalam Abubakar.

Self-Assessment Exercises 1

Write a short essay on the history of health insurance scheme in Nigeria

4.4 NHIS: Nigerian Concept

It is a social health security arrangement to provide financial security to the citizens against unforeseen ill health. A scheme established by law no.35 of 1999 to improve health care delivery by providing a sustainable alternative source of funding health care services. The scheme works on the principle that higher income earners will subsidize those with lower income; and those with lower health needs will subsidize those with higher needs. Resources are pooled among a large population so that sufficient fund will be made available to take care of individuals needing health care at any time. It will be a solution to the problem of inappropriate use of the levels of health care leading to unnecessary costs and under-utilisation. It guarantees access to health care as a right to participants.

The establishment of the scheme was informed by the general poor state of the nation's health care services in relation to accessibility, quality of services rendered, utilization and distribution, the

excessive dependence and pressure on the government provided health services, and dwindling funding in the face of rising cost of heath care services.

4.5 Objectives of the Scheme

The objectives of NHIS include:

i. To ensure that every Nigerian has access to good health care services.
ii. Protecting families from the financial hardship of huge medical bills.
iii. To ensure equitable distribution of health care costs among different income groups.
iv. Limiting the rise in the cost of health care services.
v. To improve and harness private sector participation in the provision of health care services.
vi. To ensure equitable patronage of all levels of health care.
vii. To maintain high standard of health care delivery services within the scheme.
viii. To ensure availability of funds to the health sector for improved services.
ix. To ensure efficiency in health care services.
x. To ensure adequate distribution of heath facilities within the federation.

Self-Assessment Exercises 2

List the objectives of the National Health Insurance Scheme in Nigeria

4.6 Health Care Benefits of the Scheme

The benefits derived from participating in the scheme are defined by law, fairly comprehensive and include the following:

Defined elements of curative care such as:

- Out patient attendance
- Maternity care for up to four births for every insured person
- Consultation with defined range of specialist
- Hospital care in a public or private hospital in a standard ward, during a stated duration of stay, for physical or mental disorders.
- Eye examination and care, excluding tests for and the actual provision of spectacles

Defined Dental Care:

- Consultant, Oral examination, preventive care and pain relief
- Preventive care including immunization, family planning, antenatal, post-natal care and health education.
- Prescribed drugs and diagnostic tests
- Prostheses and rehabilitation

It is evident that the contribution of a small affordable amount buys a lot in terms of health care.

4.7 How the Scheme Works

For participation in the scheme, contributors will first register with an NHIS approved Health maintenance Organization (HMO) and thereafter register with a primary health care provider of his choice from the approved list of providers supplied by HMOs'. When a contributor is registered he will be issued an Identity card (ID) card with a personal identification number. In the event of sickness the contributor presents his ID card to his chosen primary health care provider (PCP) for treatment. A contributor has a right to change his PCP after a minimum period of six months if he is not satisfied with his services. Disputes between actors in the scheme shall be settled by arbitration boards to be set up at the state level, whose membership includes representative of NMA; Pharmaceutical Society of Nigeria; The National Association of Nigerian Nurses and Midwives and the public. The HMO will make payment for services rendered to him to the health care provider. A contributor may be asked to make a small co-payment per prescription at the point of service.

A contribution made by the insured person entitles him or her, spouse and four children under the age of 18 years to full health benefits. However students in school up to age 25years qualify as dependants. Extra contributions will be required for additional dependants. Contribution to be made by formal sector employees for health benefits under the scheme will be 15% of wages, the payment of which will be by both the employee and the employer. The employee pays 5%, while the employer pays the remaining 10%. The employee's part of the contribution is deducted from his pay with the employer adding his own and forwarding the total payment to the appropriate quarters. The implementation of the scheme is in phases to cover all Nigerians categorized as follows:

i. Employers in the formal sector (public and private) – their contribution will be paid by their employers and those in public sector by the federal state local governments Parastatals and agencies as appropriate.
ii. Self-employed person (market women, traders, artisans, farmers and Businessmen etc) – they will be encouraged to pay their contributions either by themselves or through cooperatives formed by them.
iii. Rural dwellers – for this group priced programmes designed for them will be implemented in consultation with various organizations such as the community banks, cooperatives, local, state and federal governments as well as donor agencies and other NGOs'.
iv. Vulnerable groups which include the unemployed, the aged, the disabled, the street children, the retarded and the retirees – their contribution will be paid on their behalf by the federal government, state government and local governments, NGOs, local community and philanthropists. It is

however important to emphasize that coverage is phased starting with employees in the formal sector representing a definable group.

Self-Assessment Exercises 2

Write briefly on how the National Health Insurance Scheme works

4.8 Summary

In this unit you have read through the history of health insurance scheme in Nigeria and the objectives of the scheme. Also the various benefits of the scheme are listed. You have also been able to understand how the scheme works.

The National health Insurance Scheme is set to provide access to quality health care to all Nigerians. Quality, accessible and sustainable health care that is adequately funded, will guarantee a healthy populace, also provide an economically productive one, the benefits of which will be accrued to individual, organization and government. The scheme is already being implemented in the country and started with workers in the public sector.

4.9 References/Further Readings/Web Resources

Akande T.M., Olugbenga-Bello A.I. National Health Insurance Scheme in Nigeria. Medilor Vol. 7 No.1:21 – 25.

Katibi I.A., Akande A.A., Akande T.M. Awareness and attitude of medical practitioners in Ilorin towards National Health Insurance Scheme. Nigeria medical Practitioner. 43(2) 33 – 35.

NHIS National Health Insurance Scheme (NHIS) Guidelines. NHIS Abuja.

Onafase A.N (1998). The Perceived role of private insurance companies in the national Health insurance scheme. Ilorin doctor 1998

Report of technical committee on the coverage of the vulnerable group in the national health insurance scheme December 1999.

Module 4: ECONOMIC EVALUATION OF HEALTH PROGRAMME

Economic evaluation of health programme is important as a result of limited resources available to the health sector and the need to gain maximum benefit from the available resource. Hence, this

module is dedicated to issues on budgeting, cost of health care, cost containment in health care and methods of economic evaluation of health programme.

Unit 1 Budgeting

Unit 2 Cost of Health Care

Unit 3 Cost Containment in Health Care

Unit 4 Methods of Economic Evaluation of Health Programme

Unit 1 Budgeting

Unit Structure

1.1 Introduction

Every health organization is involved in budgeting. Organizations budget for their humans and material resources. Nurses particularly at the managerial level need to be familiar with the principles and process of budgeting. Budgetary leaders inspire proactive fiscal planning, determine resource needs, guide visioning of justification for resources, and negotiate for needed resources. Nursing managers also need to analyze expenses, anticipate, recognize and creatively deal with budgetary problems. Budget help coordinate the efforts of the organization by determining what resources will be used by whom, when and for what purpose. Budget can be prepared by units in an organization or

for each function in a unit. In most developing countries it is common to find budget for the organization and units hardly have their own developed budget.

1.2 Learning Outcomes

By the end of this unit, you will be able to:

- Understand and able to define budget.
- Know and understand the various types of budget.
- Be familiar with the advantages and disadvantages of budgeting

1.3 Definition of Budget

Budget is defined as a quantitative statement, usually in monetary terms, of the expectations of a defined area of the organization over a period of time in order to manage financial performance. Budget can also be seen as a plan for the allocation of resources and a control for ensuring that the results comply with the plans. The results are expressed in quantitative terms. Budget are often associated with financial statements, such as revenues and expenses; they may also be in form of non-financial statements covering output, materials and equipment.

Self-Assessment Exercises 1

Define budget in your own words.

1.4. Basic Concepts Related to Budget

Budgeting – Is the process of planning and controlling future operations by comparing actual results with planned expectations.

Controlling – It is the process of comparing actual results with the results projected in the budget.

Incremental (line-by-line) budget – This is a budget worksheet listing expense items on separate lines. This is usually divided into salary and non-salary expenses. The worksheet may include several columns for the amount budgeted for the current year, the amount actually spent year-to-date, the projected total for the year based on the actual amount spent, increases and decreases in the expense amount for the new budget, and the request for the next year. This line-by-line budget has the advantage of simplicity but it discourages cost-efficiency. Astute managers ensure that they spent the entire amount budgeted for the year to avoid budget cuts in the next year.

Zero-Based Budget – This is a budgetary approach that assumes the base for projecting next year's budget is zero. Managers are required to justify all activities and every proposed expenditure, regardless of the level of expenditure in previous years. Every expenditure for the new year must be justified in view of organization's objectives and current environment.

Fixed Budget – A budget in which budgeted amounts are set regardless of changes that occur during the year such as volume of patient, unanticipated inflation.

Variable Budget – A budget developed with the understanding that adjustments to the budget may be made during the year based on changes in revenues, patient volume, utilization of supplies, and other expenses.

Fiscal Budget – A specified 12-month period during which operational and financial performance is measured.

1.5 Types of Budget

1.5.1 Operating Budget

This is also known as Revenue-and–expense budget or annual budget. It is the organization's statements of expected revenues and expenses for the coming year. It coincides with the fiscal year of the organization which in the public sector corresponds to the calendar year – January to December. The operating budget reveals an input-output analysis of expected and revenues and expenses. The **revenue budget** for a nursing unit may represent the patient care income expected for the budget period. The **expense budget** consists of salary and non-salary items. Among the factors that nurse managers might include in their operating budget are personnel salaries, employee benefits, medical and surgical supplies, drug and pharmaceuticals, office supplies among others. Expense budget should be comprehensive and thorough; it should take into consideration, all available information regarding the next year's expectations. Both controllable and non-controllable expenses are projected. Examples of non-controllable expenses include indirect expenses like lighting, equipment depreciation. The non-controllable expenses and the probability of rises in materials and labour costs during the budgetary period need to be accommodated in the budget to provide for changes that are beyond the control of the organization or unit.

1.5.2 Personnel Budget

Personnel budgets estimate the cost of direct labour necessary to meet the agency's objectives. This budget is used as a guide to recruit, hire, lay off and discharge personnel. In developing the budget the nursing manager need to determine the level of need of nursing care that will meet the need of estimated patient population in her unit. The nursing manager will need to estimate the number of various cadres of nursing personnel required during what shifts, in what months and in which areas.

Managing the salary budget is directly related to the manager's ability to supervise and lead the staff. In addition to anticipated salary expenses, peculiar expenses to nursing such as overtime, shift-duty, on-call expenses need to be budgeted for. Some information that are helpful in budgeting include; current staffing pattern, number of vacant positions, previous years reports and performances, variety of patient cases, seasonal variation in patient load and disease burden.

1.5.3 Capital Expenditure Budget

Capital budget is an important component of the plan to meet the organization's long term goals. Capital expenditures include physical changes such as replacement or expansion of the plant, major equipment and inventories. Organizations define capital items based on certain criteria; must have an expected performance of a least 1 year or at least cost a minimum of certain amount like equivalent of $500 or $1,000. Usually administrators establishes ceiling for capital budget and the nurse manager will need to prioritize requests if the request exceeds the available fund. Unfortunately in many developing countries nursing managers are hardly involved in capital budget. This is taken up by hospital administrators at higher level though with some input from the nurse managers in form of selecting and determining the amount of equipment needed.

1.5.4 Cash Budget

Cash budget are planned to make adequate funds available as needed and to use any extra funds profitably. Cash budget ensures that the organization during the budgetary period has enough, but not too much cash on hand. This is necessary because incomes do not necessarily coincide with expenditures and also seasonal variations should be anticipated which result in fluctuations in resource needs. If there is insufficient cash on hand purchase of needed resources will be hindered. If the budget is well planned, it will provide cash as needed and produce interest on excess fund.

1.5.5 Flexible Budget

Some expenses are unpredictable and can only be determined after change has commenced. Because of this it is necessary to have flexible budget. The changes can be compensated for by having periodic budget reviews. Sometimes variation in cost can be predicted through historical analysis of costs in previous budgets. Attendance of health facilities in many places in Nigeria drops significantly during festivities and in some cases attendance of clinic is higher soon after workers receive salaries. These forms of variations require that budgets are made flexible. There are lot of uncertainties in the Nigerian environment which makes flexible budget to be advantageous.

Advantages of budgeting
The advantages of budgeting include:

- Budget plans for detailed programme activities
- Help fix accountability by assignment of responsibility and authority
- State goals for all units, offer a standard of performance, and stress the nature of the planning and control process
- Encourage managers to have careful analysis of operations and to base decisions on careful consideration
- Minimize hasty judgments in decision making
- Can expose organizational weaknesses and allow corrective measures to be taken
- Resources can be projected and waste minimized
- Financial matters can be handled in orderly fashion and activities of organizations can be coordinated and balanced

Disadvantages of Budgeting
The disadvantages of budgeting include:

- Only aspects of organization activities that are easy to measure are considered in budgeting as budget convert all aspects of organization performance into monetary values
- May become an end in itself instead of a means to an end. Particularly in situations where symptoms are treated as causes, it is important to find out the underlying reasons for the symptoms
- Budgetary goals may sometime supersede the organization's goals and gain autocratic control of the organization
- Danger of over-budgeting making the budget cumbersome and expensive
- Time consuming and expensive
- Require skill and experience for successful budgetary control
- Require forecasting but this can be uncertain because budgetary control is subject to human judgment, interpretation and evaluation

Explain different types of budget in the health sector

1.6. Summary

In this unit you have learn about budget and the various types of budgets which include; operation budget, personnel budget, capital budget, cash budget and flexible budget.

Budgeting is an important component of a manager's responsibilities. Budget can be seen as a plan for the allocation of resources and a control for ensuring that the results comply with the plans. The results are expressed in quantitative terms. Budget are often associated with financial statements, such as revenues and expenses and may also be in form of non-financial statements covering output, materials and equipment. All types of budget can be put to use in the health sector and its important to have an understanding of budgets and the process of budgeting.

1.7 References/Further Readings/Web Resources

Sullivan E.J., Decker P.J. (2005). Effective leadership & Management in Nursing (6th Edition). Pearson Prentice Hall, Pearson Education International, New Jersey.

Tomey A.M. (2003). Guide to Nursing Management and Leadership (6th Edition). Mosby, Elsevier Science (Singapore) Pte Ltd. Singapore.

1.8 Possible Answers to SAEs

These are the possible answers to the SAEs within the content.

Answers to SAEs 2

1. Operating Budget
2. Personnel Budget
3. Capital Expenditure Budget
4. Cash Budget
5. Flexible Budget

UNIT 2 COST OF HEALTH CARE

Unit Structure

2.1. Introduction

2.2. Learning Outcomes

2.3 Types of Health Care Cost

2.4. Elements of Cost

2.5. Benefits of Health Care

2.6. Economic Appraisal in Health Care

2.7. Reasons for the Present Trend in Cost of Health Care

2.8. Summary

2.9. References/Further Readings

2.10. Possible Answers to Self-Assessment Exercises (SAEs) within Content

2.1 Introduction

The cost of health care is high and increasing rapidly. Higher health care prices combined with an increase in the quantity of services provided has resulted in rising healthcare cost. The spending on health care involves ‘prices’ and ‘quantities’ and is referred to as healthcare costs. The production of health care requires scarce resources such as capital in the form of hospital facilities and diagnostic equipment and highly skilled labour of physicians, technicians, nurses and other paramedical staff.

2.2 Learning Outcomes

By the end of this unit, you will:

- Understand the various types and elements of health care cost
- Be familiar with the reasons for the increasing cost of health care

2.3 Types of Health Care Cost

The economic cost of a disease consists of direct and indirect cost. Direct cost is monetary expenditures attributable to the disease and indirect cost is what can be associated with loss of output attributable to the disease owing to premature death or disability. There are four (4) different types of health care cost as described below and include:

Direct medical cost – Medical cost incurred for medical products and services used to prevent, detect, and or treat a disease. These cover costs for drugs, laboratory tests and supplies. This cost has monetary value in terms of naira.

Direct Non-Medical Cost – This type of cost cover non-medical services that results from illness but do not involve purchasing medical services. Example of this type of cost include cost of transportation, food, family care. This type of cost is enormous in developing countries where several relatives, friends involved in the care of patients.

Indirect Non-Medical Cost – This type of cost results from reduced productivity because of ill-health. When a patient is unable to do his usual job, the loss of productivity and income is a cost.

Intangible Costs – These are non-financial outcomes of disease and medical care not expressed in monetary value. The non-financial outcome can be in form of suffering, pain and grief. This cost cannot be estimated in monetary value.

2.4. Elements of Cost

Cost comprises three (3) elements.

i. Loss of production. ii. Expenditures for medical care.
iii. Pain, discomfort and suffering that accompany the disease.

In analysis the last is often neglected because of inadequate data.

Self-Assessment Exercises 1

List the types of health care cost and give 5 examples of each type.

2.5. Benefits of Health Care

The benefits individual receives from health care could be psychic or monetary, they include:

a. Relief from pain, suffering, anxiety etc.
b. Benefits in the form of capital good being monetary "pay off" measured by increased production.

2.6. Economic Appraisal in Health Care

Economic efficiency is relevant in health care because the resources that are used in providing services and programmes are scarce. Since resources is not enough to satisfy human wants, their use in one beneficial activity means that the community foregoes the opportunity to use the resources in another beneficial activity. Expenditure on medical care is rising in both developing and developed countries.

In-patient services are a large and fast growing part of all health service expenditures, staff costs which alone account for about half the cost of all personal health care and this together with drug costs take up the largest share of all health service expenditures. Thus, the real cost of health care is much more than what patients pay for in most public health facilities in developing counties. To evaluate the costs of health care to the society rather than to a category of users, the money spent on resources is not considered a good indicator. Such expenditure might be artificially high owing to high taxes or profits or artificially low owing to subsidies and grants. Economic efficiency in health care can be defined as the provision of necessary care of good quality at minimum cost. Therefore the aim is to move towards a better economic balance of services and eliminate ineffective, excessive and unnecessary medical procedures. Many economic factors are beyond the control of health decision makers, but one measure within their powers is to curb the growth of high-cost programmes and services and promote low-cost services which, by using less expensive primary health care personnel will reach a much larger proportion of the community. It is important to encourage cost awareness among health care providers in view of the scarce resources from both the private and the public. There is also a need to make consumers aware of the costs of health by being better informed on the choices available to them and the cost of the choices so that they can make well informed decisions to save cost.

Self-Assessment Exercises 2

What do you understand by economic efficiency in health care?

2.7. Reasons for the Present Trend in Cost of Health Care

The reasons for the current trend in cost of health care include:

i. Demographic reason – There is population growth in developing countries, to keep pace with this growth, health care cost has to increase.

ii. Labour intensive nature of health services – Health care is labour intensive and there is limited scope for saving on labour cost in personal health services.

iii. Quality of health services – Advances in technology has improved quality of diagnosis and therapy. Think of the equipment used today as compared with what obtained some 10 – 20 years ago.

iv. Public expectation – People desire increasing standard facilities in health services, there is high demand for curative health care while under-utilizing preventive personal health service.

v. Changing epidemiological picture during socio-economic development–chronic and degenerative diseases and their high cost of care.

vi. Organization and structure of health system – There are situations where multitude of agencies are financing and delivering parallel and uncoordinated health services with consequent overlapping.

Self-Assessment Exercises 3

Give reasons for the increasing cost of health care to individuals and to the society at large.

2.8. Summary

In this unit you have gone through the cost of health care which are mainly grouped into direct and indirect costs. The real cost of health care, when all these costs are considered, can be so much. Ill health can therefore be seen as something that cost individuals and societies a lot of money. Also you have learn the reasons for the increasing cost of health care.

Health care cost may be a direct or an indirect cost. All over the world the cost of health care is on the increase as result of increasing population particularly in developing countries, increased burden of disease and the use of costly facilities and equipment with the skilled personnel to provide services. The providers of health determine what the consumers pay for unlike other forms of market in which the consumer have information to determine what he needs and to what extent the thing to be paid for will be beneficial.

2.9 References/Further Readings/Web Resources

Abel-Smith B. (1984). Improving cost effectiveness in health care. World Health Forum: 5: 88-90

Abel-Smith B (1986). Paying for health for all. World Health, The Magazine of the World Health Organization, May: 4 – 6

Akande T.M. (1998). Cost consideration in health care in developing countries. Ilorin Doc. 3(1) 4-9

2.7 Possible Answers to SAEs

Answers to SAEs 3

1. Demographic reason – Population growth in developing countries
2. Labour intensive nature of health services
3. Quality of health services – Advances in technology
4. Public expectation – People desire increasing standard facilities in health services
5. Changing epidemiological picture during socio-economic development.

UNIT 3 COST CONTAINMENT IN HEALTH CARE

Unit Structure

3.1 Introduction

The objective of health care is to improve health status by reducing morbidity, postpone mortality and give people a higher quality of life. This can be achieved by promoting health, preventing ill health, curing ill-health when it occurred, and enabling those whose conditions cannot be cured with existing knowledge to live a full life as much as possible despite their disabilities. All these are at a cost, it has to be acknowledged that good health like most "goods" costs money. Those who can afford to spend more on their health up to a point, seem to benefit the most.

The Health care market is one of the difficult market in economic analysis since ill-health determines the demand for health care services. The individual's determination of ill-health is personal, emotional and can be uncertain. Health care is one of a subset of goods and services that provides both psychic and monetary benefits to consumer. The individuals demand for health care is derived from his perception of his optimal level of health. Demands for health care thus arise because the individual wants to bridge the gap between the perceived current health state and some higher health state desires. The individual then takes action to decide to seek health care. The need for health care and the demand for it is not the same, more so in developing countries. The cost of meeting this need and demand is

enormous. A plan for health that does not take account of costs amounts to no more than window shopping.

3.2 Learning Outcomes

By the end of this unit, you should:

- Understand the need for providers of health care to be cost conscious
- Understand factors that contribute to resource inadequacy in developing countries
- Know about the various cost-containment strategies in health care delivery

3.3 Cost Consideration in Health Care

Provision of health care is at a cost to individuals who make the demand and also the individuals, communities, government and non-governmental agencies who supply it. Consumer health deals with the decisions individuals make in regard to the purchase and use of the available health products and services that will have a direct effect on their health. It involves economic or monetary aspects of health over which individuals have control. Consumer health includes selfmotivated or self-initiated actions. From this you know that health care follow a demand from the consumer (patient). The fact is that it is no longer possible to meet the increasing cost of health care with the emergence of several new health risks and problems unless; health is built in among the priority economic objectives by individuals, families, communities and government. It is desirable to increase accessibility to health services by either increasing people's ability to pay or reducing costs. This can positively change health care seeking behaviour such that people benefit from early detection, diagnosis and treatment and ultimately reduce expenditure on chronic or complicated cases which is now usually the case in developing countries.

Resources available for health care are not enough to meet the demand, it is therefore necessary to closely examine the main problems in the health sector that are contributory. These problems are mainly; allocation, internal inefficiency and inequity

Allocation Problem

There is a problem in allocation of funds to health care particularly in developing countries. Private and public spending on health care in developing countries average $8 per capital which represents about two-thirds of sub-Saharan Africa's people and $16 per capital in middle income countries which

represent nearly 30% of sub-Saharan Africa's people and $68 per capital in the high income group of countries representing only one-twentieth of Africa's population. Even though many developing countries have embraced Primary Health Care, current public and private spending on basic health services is inadequate. Private spending in these countries is substantial but little of it goes to low cost services which are more cost effective. In some countries, individuals expenditure on health account for over 70% of the total health expenditure. If the private and public resources tied up in hospital care are redirected to lower levels of health system, many of these health problems could be treated earlier at a less severe stage or prevented altogether and even at lesser cost. Allocation problem exists even at individual level, though it is seen as a problem at government level. Allocation problem at the level of government is common in African countries. Government rather than spend appropriately on preventive health care which is cheaper end up spending on curative health care at higher level which is costlier.

Inefficiency Problem

Inefficiency is common in health care delivery. One of the ways it occurs is the use of higher level facilities by patients who could well be served at less sophisticated units or facilities. It is common in developing countries for the high level facilities to be overcrowded with lengthy waiting times while other health facilities usually at the lower level have few patients. This result in delivery of unnecessary care through costly facilities and use of highly skilled personnel and because of the demand on the high level facilities, they are further expanded at some costs which certainly affects the lower levels. The supply of funds to the lower levels is thus further reduced.

Inequity Problem

Inequity is another problem in developing countries. There is inequitable urban-rural distribution of benefits. About 70% or more of government spending goes to urban based care and in developing countries, 70-90% of hospital clients live within 10kms to the facility they use therefore about 70% of people in the rural areas receive just about 30% of government health expenditure. There is also inequality in income; the poor who are at greater health risk have low income.

Self-Assessment Exercises 1

What are the factors contributing to inadequacy of resources for health care in your local area?

3.4 Cost Containment in Health Care

The goal of cost containment is to keep costs within acceptable limits for volume, inflation and other parameters. It involves costs awareness, monitoring, management and incentives to prevent, reduce, and control costs.

3.4.1 Cost Awareness

This focuses on costs of service delivery and the steps available for containing them. Health staff in developing countries are hardly know or get bothered about the ultimate cost of service to the organization and the consumers. An awareness of the cost can bring about a desire to see how such costs can be contained.

3.4.2 Cost Monitoring

Is another measure in cost containment. Organizations providing health care can focus on how is to spent, when, where and why. With answers to these, the cost of providing services can be monitored with the ultimate aim of checking where wastes can be reduced. Incentives can be provided to staff that have clear ideas and have demonstrated money-saving measures in their unit.

3.4.3 Cost Avoidance

Where possible, **cost avoidance** for unnecessary procedures can be put in place to minimize expenditures on the part of the consumer and the organization.

3.4.4 Cost Reduction

In health care delivery is desirable to contain health care cost. Preventive measures like childhood immunization can save a lot of cost in health care when compared to cost of managing the disease that would have been prevented.

3.4.5 Cost Control

These can be useful as a cost-containment strategy. Cost control is effective use of resources through careful forecasting, planning, budgeting, reporting and monitoring. Cost-effectiveness entails comparing costs and identifying the most beneficial outcomes. This is done by, analyzing the alternative methods in achieving the same objective and then determine the cost implication of all inputs for each method. For each method the cost outcome and cost-effectiveness is determined.

Self-Assessment Exercises 2

What do you understand by the following terms? a. Cost awareness b. Cost monitoring c. Cost avoidance d. Cost reduction e. Cost control

3.5 Ways to Contain Cost of Health Care

The main objective in cost cost-containment must be to realize the same benefits at lower cost and to increase benefits without adding costs. The consumer and providers of health care have roles to play in cost containment. Consumers need to make rational use of health care service though they need to be assisted to do this in developing countries through adequate health information on the costs, consequences and quality of treatments, and the adequacy of competition between providers. Consumers need to be educated to use lower levels of health care where most of the health problems can be solved at reduced cost and referrals made to higher levels when necessary. Financial disincentives can also be used to discourage use of secondary and tertiary health care unnecessarily.

For example if patients choose to go for treatment by-passing the lower level of care such patients can be made to pay more that someone who was referred from the lower levels.

Other ways costs can be saved include:

a. To ensure that the degree of technical complexity involved in the service delivery is appropriate to the task to be performed.
b. Highly skilled staff not to be used on tasks that can be performed by lesser skilled staff.
c. People should have positive health behaviour to maintain better health.
d. Standardization of construction technology, equipment and drugs to the minimum acceptable standard and therefore relatively inexpensive level. Large sum of the health budget is spent on drugs; costs can be contained through rational prescribing and use of drugs.
e. Using all resource to full capacity, avoiding waste by ensuring that they complement one another where possible and serve as many users as possible.
f. Economy in procurement of resources of given characteristics.

3.6 Cost Containment in Primary Health Care

Lack of interest in cost analysis is a characteristic of the whole range of health activities particularly in developing countries. It is particularly pronounced in primary health care, probably because of the diversity of the activities involved.In developing countries the only health services that can be expected to reach the entire population, are those that are of low cost. The largest element of cost in health services is staff and the least expensive way to do this is through community participation in which people provide some of the services themselves where possible.

Self-Assessment Exercises 3

List ways cost of health care can be contained. How is this applicable to the nursing profession?

3.7 Summary

Health care in developing countries continue to increase even though the demand is less than the health care need. The resources available are not enough, and are not likely to be enough to meet the increasing health problems. The economic depression and inadequate management of resources in developing countries has made supply of health care in its various forms grossly inadequate; cost of heath care to individuals, government and agencies is increasing. It is necessary for providers and consumers to be cost conscious with the ultimate aim of cost containment in health care. It is necessary to increase general awareness on costs of health care, so that cost saving measures can be practiced and through this increase affordability and coverage of health care in developing nations.

Providing health care is at a cost, this is increasing in all nations and resources of most countries particularly developing countries are scarce. Also health has to compete with other needs for the scarce resources of individuals, communities and nations. It becomes apparent that cost of health care has to be controlled with efficiency. Consumers and providers of health care need to be cost conscious. Cost saving measures, are required to be put in place in the health sector while at the same time striving to provide quality health care for the populace. It is important that all health care providers are made to be cost conscious, to ensure that services do not cost more than absolutely necessary,so that more people can be reached with health care.

3.8 References/Further Readings/Web Resources

Abel-Smith B (1986). Paying for health for all. World Health, The Magazine of the World Health Organization, May: 4 – 6.

Abel-Smith B and Leiserson A. (1987). Making the most of scare resources. Health care – Who pays: World health Forum reprint: Geneva: 13 -22

Abel-Smith B. (1984). Improving cost effectiveness in health care. World Health Forum: 5:88-90.

Andres, C. (1992). Health is Wealth "but also Wealth is Health" World health. The Magazine of the World health Organization: Nov – Dec. Geneva: 2- 10.

Carr-Hill R. (1994). Equity for the poor, Health care tomorrow, World health. The magazine of World health Organization: Vol5, Geneva: 22 – 23.

Cornacchia, H and Berret S. (1982). Shopping for Health Care. Mosby Press, New York: 4 – 22.

3.9 Possible Answers to SAEs

Answers to SAEs 3

1. To ensure that the degree of technical complexity involved in the service delivery is appropriate to the task to be performed.
2. Highly skilled staff not to be used on tasks that can be performed by lesser skilled staff.
3. People should have positive health behaviour to maintain better health.
4. Standardization of construction technology, equipment and drugs to the minimum acceptable standard and therefore relatively inexpensive level. Large sum of the health budget is spent on drugs; costs can be contained through rational prescribing and use of drugs.
5. Using all resource to full capacity, avoiding waste by ensuring that they complement one another where possible and serve as many users as possible.
6. Economy in procurement of resources of given characteristics.

UNIT 4 Methods of Economic Evaluation of Health Programme

Unit Structure

4.1 Introduction

Economic evaluation is now becoming increasing important and relevant in health care delivery. In view of scarce resources, decision makers need to know how best to use the little available funds judiciously. Through economic evaluation various strategies of health care delivery can be compared objectively making it relatively easy to choose the best and most efficient service.

4.2 Learning Outcomes

By the end of this unit, you should:

- Understand what economic evaluation is
- The various methods of economic evaluation

4.3 Cost-Benefit Analysis (CBA)

This compares the cost incurred and the benefits obtained form the health care on the disease. When the benefits exceed costs, the resources have been effectively utilized. Cost benefit analysis compares the costs and benefits in using resources in a specific way as against alternative uses. Cost benefit analysis allows for the identification, measurement, and comparison of the benefits and costs of a programme or treatment alternative. The benefits realized from a programme or treatment alternative compared with the costs of providing the programme or treatment alternative. Both the cost and the

benefits are measured and converted into the monetary equivalent in the year in which they occur. Future costs and benefits are discounted or reduced to their current value. The costs and benefits are expressed as a ratio (benefit-cost ratio). If the Benefit/Cost ratio is greater than 1 the programme or treatment is of value, i.e. the treatment benefit outweigh the cost of providing the programme. Where Benefit/Cost are equal to 1 then the benefits equal the cost. If Benefit/Cost are less than 1 then the programme or treatment is not economically beneficial. To measure in monetary terms the benefit of an health intervention in developing countries is difficult and a major limitation to using this type of economic evaluation.

4.4 Cost-Effectiveness Analysis

This compares the cost or effectiveness of different options of using resources. Because of the difficulty in measuring benefits particularly humanitarian benefits, cost-effectiveness analysis is often used for economic appraisal in health care. Cost Effectiveness Analysis (CEA) is a way of summarizing the health benefits and resources used by competing health care programmes so that policy makers can choose among them. The outcome unlike the input is not measured in monetary unit. CEA investigates the best and cheapest way of achieving a single objective by comparing effects and costs. The aim of CEA is to determine one of the following:

- Which of a number of possible interventions achieves a given objective at the least cost
- Given a fixed budget the intervention maximizes the effectiveness of the expenditure

The best cost-effective intervention is the one with the lowest total costs and when interventions are equal in cost, the better one is the one with highest effectiveness. The most cost-effective alternative is not always the least costly alternative for obtaining a specific treatment objective.

Self-Assessment Exercises 1

Differentiate between Cost-Benefit Analysis and Cost-Effectiveness Analysis

4.5 Cost of Illness Evaluation

This identifies and estimates the overall cost of a particular disease on a defined population. This method is often referred to as ‘burden-of-illness’ and it involves measuring the direct and indirect costs attributable to a specific disease. This method of evaluation does not really compare various strategies rather it helps establish the cost of a particular disease on a defined population.

4.6 Cost-Minimization Analysis

Cost-minimization analysis (CMA) involves the determination of the least costly alternative when comparing two or more treatment alternatives. In CMA, the alternatives must have an assumed equivalency in outcome. This method of evaluation is simple as it compares competing treatment modalities or programme as long as there is evidence that the outcomes of both modalities are equal.

Other forms of Economic Evaluation

Another form of economic appraisal is quality Adjusted Life Years (QALYS') which is a cost-utility analysis (CUA). It allows more than one type of outcome to be included unlike CEA. This however assumes that there are no other objectives to health care than health maximization.

4.7 Summary

In this unit you have read about methods of economic evaluation. It also describes types of economic evaluation which include; cost-benefit analysis, cost-effectiveness analysis, cost-of-illness evaluation and cost-minimization evaluation.

Economic evaluation is increasingly relevant in health care delivery. This will assist in making informed choice on most effective strategies that can be used in health care delivery. Each of the methods of economic evaluation has their limitations and the areas in which they can be applied. Costing the benefit of health intervention or programme is a big challenge in developing countries.

4.8 References/Further Readings/Web Resources

Abel-Smith B. (1984). Improving cost effectiveness in health care. World Health Forum: 5:88-90

Djukanovic, V. and Mach E. (1995). Alternative approaches to meeting basic health needs in developing countries. A Joint UNICEF/WHO study. pp 19 – 21.

Financing District Health Services. International Workshop held 11th – 15th April 1994 in Nairobi Kenya. Published by GTZ Eschborn, Germany.

WHO (1981). Guidelines for health care practice in relation to costeffectiveness. Report on a WHO Workshop, Euro Report on a WHO Workshop, Euro reports and studies 53. World health Organization Publication, Geneva pp 32 – 34.

World Bank (1987). Financing health Services in Developing Countries. An Agenda for reform; A World Bank Policy Study, Washington USA, pp 10 – 24.

World Bank (1994). Development in Practice, Better Health in Africa, Experience and lessons

4.8 Possible Answers to SAEs

Answers to SAEs 1

Cost-Benefit Analysis (CBA) compares the cost incurred and the benefits obtained form the health care on the disease. When the benefits exceed costs, the resources have been effectively utilized. Cost benefit analysis allows for the identification, measurement, and comparison of the benefits and costs of a programme or treatment alternative. The benefits realized from a programme or treatment alternative compared with the costs of providing the programme or treatment alternative. Both the cost and the benefits are measured and converted into the monetary equivalent in the year in which they occur. Future costs and benefits are discounted or reduced to their current value. The costs and benefits are expressed as a ratio (benefit-cost ratio). If the Benefit/Cost ratio is greater than 1 the programme or treatment is of value, i.e. the treatment benefit outweigh the cost of providing the programme. Where Benefit/Cost are equal to 1 then the benefits equal the cost. If Benefit/Cost are less than 1 then the programme or treatment is not economically beneficial. To measure in monetary terms the benefit of an health intervention in developing countries is difficult and a major limitation to using this type of economic evaluation.

Cost-Effectiveness Analysis (CEA) compares the cost or effectiveness of different options of using resources. Because of the difficulty in measuring benefits particularly humanitarian benefits, cost-effectiveness analysis is often used for economic appraisal in health care. Cost Effectiveness Analysis (CEA) is a way of summarizing the health benefits and resources used by competing health care programmes so that policy makers can choose among them. The outcome unlike the input is not measured in monetary unit. CEA investigates the best and cheapest way of achieving a single objective by comparing effects and costs.