



**NATIONAL OPEN UNIVERSITY OF NIGERIA**

**SCHOOL OF HEALTH SCIENCES**

**COURSE CODE: PHS 315**

**COURSE TITLE: Non Communicable Chronic Diseases**

**COURSE  
GUIDE**

**FOR B.S.C. COMMUNITY HEALTH**

**COURSE CODE : PHS 315**

**COURSE TITLE : NON COMMUNICABLE AND CHRONIC  
DISEASES**

**COURSE DEVELOPER : REV. DR. KAYODE. A.B. OGUNNIYI  
PRINCIPAL,  
OSUN STATE SCHOOL OF HEALTH  
TECHNOLOGY, ILESA  
OSUN STATE.**

**PROGRAMME LEADER :**

**COURSE COORDINATOR : OLUBIYI KAYODE  
NATIONAL OPEN UNIVERSITY OF NIGERIA  
LAGOS**



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**NATIONAL OPEN UNIVERSITY OF NIGERIA**

# **NATIONAL OPEN UNIVERSITY OF NIGERIA COURSE GUIDE FOR COMMUNITY HEALTH**

## **INTRODUCTION**

Non communicable and chronic diseases, is a semester course. It is a two credit unit course available to all student of Bachelor of Science (B.SC) Community health (comm.H.).

Non communicable and chronic diseases constitute a major contributor to mortality globally and a leading cause of functionary impairment, they also constitute additional diseases burden aside from preventable communicable diseases already devastating developing nation like Nigeria.

In the past years under developed and developed countries had focused on infection diseases to the exclusion of non communicable and chronic diseases but the situation is fast changing as the elite in the developing world are emulating the developed world in the diets and way of life making the diseases equation to tilt towards increase in the occurrence of non communicable diseases.

## **WHAT YOU ARE TO LEARN IN THIS COURSE**

The course content consist of a unit of the course guide which tell you briefly what the course is about, what course materials you need and how to work with such materials. It also gives you some guideline for the time you are expected to spend on each unit in order to complete it successfully.

It guides you concerning your tutor-marked assignment which will be placed in the assignment file. Regular tutorial classes related to the course will be conducted and it is advisable for you to attend these sessions. It is expected that the course will prepare you for challenges you are likely to meet in the field of Community Health.

## **COURSE AIMS**

The course aim is to provide you with an understanding of non communicable and chronic diseases. It is intended to let you appreciate the proportion occupied by

Non communicable and chronic diseases in the disease burden in a developing country like Nigeria.

## **COURSE OBJECTIVE**

To achieve the aim set out, the course has a set of objectives. Each unit has specified objectives which are stated at the beginning of the unit. You are advised to read the objectives before you study the unit because you may need to make reference to them during your study to check on your own progress. It is also good that you endeavor to check the unit objectives after completion of each unit to decipher level of accomplishment.

After going through the course, you should be able to:

Understand the concept of non communicable and chronic disease and its significance.

Identify the aetiology of Non communicable and chronic diseases. Understand the epidemiology of Non communicable and chronic diseases. Know the predisposing factors of Non communicable and chronic diseases. Understand the signs and symptoms of Non communicable and chronic diseases.

Understand the treatment and preventive measure for Non communicable and chronic diseases.

Appreciate the role of the family, the community, the government and international agencies as well as non governmental organizations in the control of Non communicable and chronic diseases.

## **WORKING THROUGH THIS COURSE**

To complete this course you are expected to read each study unit, read the textbooks and other materials which may be provided by the National open university of Nigeria. Each unit contains self-assessment exercises. In the course you would be required to submit assignment for assessment. At the end of the course there is final examination. The course should take about 15 weeks to complete.

Listed below are the components of the course, what you have to do and how to allocate your time to each unit, in order to complete the course successfully and timely.

The course demands that you should spend good time to read and my advice for you is that you should endeavour to attend tutorial session where you will have the opportunity of comparing knowledge with colleagues.

## **COURSE MATERIALS**

***The main components of the course are:***

1. The course guide
2. Study unit
3. References/further readings
4. Assignments
5. Presentation schedule

## **COURSE UNITS**

The course units in this course are as follow:

### **MODULE 1 INTRODUCTION**

#### ***UNIT***

1. Definition and concept of Non communicable and chronic diseases.
2. Aetiology and Epidemiology of Non communicable and chronic diseases.
3. Predisposing factors for Non communicable and chronic diseases.
4. Ecological changes and their effect on Non communicable and chronic diseases.

### **MODULE 2**

#### ***UNIT***

5. Signs and symptoms of Non communicable diseases
6. Treatment of Non communicable diseases.
7. Preventive and control measures for Non communicable and chronic diseases
8. Dimension of the problem of Non communicable and chronic diseases and Socio-cultural factors and occupational factors contributing to occurrence of Non communicable and chronic diseases.

## **MODULE 3**

### ***UNIT***

9. The role of the individual in the prevention and control of Non communicable and chronic diseases.
10. The role of the community in the prevention and control of Non communicable and chronic diseases.
11. The role of the government in the control of Non communicable diseases.
12. The role of international Agencies and Non Governmental organization in the control of Non communicable diseases

In Module one the first unit focuses on the meaning, concepts and importance of Non communicable and chronic diseases. The second unit deals with the aetiology of Non communicable and chronic diseases. Unit three is about the epidemiology of Non communicable diseases while unit four exposes the causes and predisposing factors. Unit five deals with the ecological changes and their effects on Non communicable diseases including risk factors. Unit six has to do with the signs and symptoms while unit seven exposes the treatment of non communicable and chronic diseases. Preventing and control measures of non communicable diseases are treated in unit eight. Units nine and ten is about the dimension of problem of communicable diseases as well as the socio cultural and occupational factors contributing to their occurrence.

Units eleven to fifteen is concerned and focus on the role of individual, the community, the government, international agencies and non government organizations in the prevention and control of Non communicable and chronic diseases.

Each unit consists of one or two weeks work and include an introduction, objectives, main content, reading materials, exercises, conclusion, summary, Tutor marked Assignments (TMAS), references and other resources. The various units direct you to work on exercises related to the require reading. In general, the exercises test you on the materials you have just covered or require you to apply it in a way that will assist you to evaluate your own progress and to reinforce your understanding of the material. Alongside the TMAS, these

exercises will help you achieve the stated learning objectives of the individual units and course as a whole.

### **PRESENTATION SCHEDULE**

Your course materials have important dates for the early and timely completion and submission of your TMAS and attending tutorials. You are expected to submit all your assignments by the stipulated time and date and guard against falling behind in your work.

### **ASSESSMENT**

There are three parts to the course assessment and these include self assessment exercises, Tutor marked Assessments and the written examination or end of course examination. It is advisable that you do all the exercises. In tackling the assignments, you are expected to use the information, knowledge and techniques gathered during the course. The assignments must be submitted to your facilitator for formal assessment in line with the deadlines stated in the presentation schedule and assignment file. The work you submit to your tutor for assessment will count for 30% of your total course work. At the end of the course you will need to sit for a final end of course examination of about three hours duration. This examination will count for 70% of your total course mark.

### **TUTOR MARKED ASSIGNMENT**

The TMAS is a continuous component of your course. It account for 30% of the total score. You will be given four (4) TMAS to answer. Three of this must be answered before you are allowed to sit for the end of course examination. The TMAS would be given to you by your facilitator and returned after you have done the assignment. Assignment questions for the units in this course are contained in the assignment file. You will be able to complete your assignment from the information and material contained in your reading, references and study units. However, it is desirable in all degree level of education to demonstrate that you have read and researched more into your references, which will give you a wider view point of the subject.

Make sure that each assignment reaches your facilitator on or before the deadline given in the presentation schedule and assignment file. If for any reason

you can not complete your work on time, contact your facilitator before the assignment is due to discuss the possibility of an extension. Extension will not be granted after the due date unless there are exceptional circumstances.

### **FINAL EXAMINATION AND GRADING**

The end of course examination for non communicable and chronic diseases will be for about 3 hours and it has a value of 70% of the total course work. The examination will consist of questions, which will reflect the type of self-testing, practice exercise and tutor-marked assignment problems you have previously encountered. All area of the course will be assessed.

Use the time between finishing the last unit and sitting for the examination to revise the whole course. You might find it useful to review your self-test, TMS and comments on them before the examination. The end of course examination covers information from all parts of the course.

### **COURSE MARKING SCHEME**

<b>Assignment</b>	<b>Marks</b>
Assignments 1-4	Four assignments, best three marks of the four count 10% each of the 30% course marks.
End of course examination	70% of overall course marks
<b>Total</b>	<b>100% of course materials</b>

### **FACILITATORS/TUTORS AND TUTORIALS**

There are 15 hours of tutorials provided in support of this course. You will be notified of the dates, times and location of the tutorials as well as the name and the phone number of your facilitator, as soon as you are allocated a tutorial group.

Your facilitator will mark and comment on your assignments, keep a close watch on your progress and any difficulties you might face and provide assistance to you during the course. You are expected to mail your Tutor marked Assignment to your facilitator before the schedule 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 delay to contact your facilitator by telephone or e-mail if you need assistance.

The following might be circumstances in which you would find assistance necessary, hence you would have to contact your facilitator if:

You do not understand any part of the study or the assigned readings.

You have difficulty with self-tests.

You have a question or problem with an assignment or with the grading of an assignment.

You should endeavour to attend the tutorials. This is the only chance to have face to face contact with your course facilitator and to ask question which are answered instantly. You can raise any problem encountered in the course of your study.

To gain more benefit from course tutorials prepare a question list before attending them. You will learn a lot from participating actively in discussions.

## **SUMMARY**

Non communicable and chronic diseases is a course that intends to provide you with the concept of non communicable and chronic diseases, the percentage this class of diseases contribute to disease burden of the world, mortality from these diseases and way of preventing and controlling them.

Upon completing this course, you will be equipped with the knowledge of Non communicable and chronic diseases. You will be able to define what is meant by Non communicable and chronic diseases, you would be able to state causes, predisposing factors, the distribution of this class of diseases, the effect of the natural and social environment on the occurrence of the diseases.

You will be able to recognize the signs and symptoms of non communicable diseases, their treatment as well as the preventive and control measure.

You will understand the dimension of the problem of non communicable diseases as well as the sociocultural and occupational factors contributing to their occurrence.

You will also know the role that can be played by individuals, the community, the government, international agencies as well as non governmental organizations in the prevention and control of non communicable and chronic diseases.

In addition, you will be able to answer questions on the subject such as

What does non communicable diseases means?

Of what importance is the knowledge of non communicable diseases?

Enumerate common non communicable and chronic diseases

What is the percentage contribution of non communicable diseases in the global disease burden?

What percentage does non communicable diseases contribute in the global mortality rate from diseases?

What are the control measures against non communicable diseases?

The above list is just a few of the question expected and is by no means exhaustive. To gain most from this course you are advised to consult relevant books to widen your knowledge on the topic.

I wish you success in the course. It is my hope you will find it both illuminating and useful.

# NATIONAL OPEN UNIVERSITY OF NIGERIA COURSE DEVELOPMENT FOR B.SC. COMMUNITY HEALTH

## **UNIT ONE**

- 1.0 Introduction
- 2.0 Objectives
- 3.0 Main Content
  - 3.1 Definition of Non communicable and chronic diseases
  - 3.2 List of common Non communicable and chronic diseases
  - 3.3 Level of awareness of people about Non communicable diseases
- 4.0 Summary
- 5.0 Conclusion
- 6.0 Tutor Marked Assignment
- 7.0 References and other resources

### **1.0 INTRODUCTION**

Non communicable diseases constitute a leading cause of functionary impairment and death globally.

Nigeria loose about 400 million dollars yearly in National income from premature deaths from diseases such as; diabetes mellitus, hypertemnsion, cancer, renal failure and stroke and certainly this loss do not includes revenue loss from exporting the health care of our presidents to other countries. World Health Organization report of year 2000 put mortality from Non communicable diseases at 59.8% of the global mortality.

### **2.0 OBJECTIVES**

At the end of this unit, you should be able to:

- Define the term of Non communicable and chronic diseases
- Differentiate between communicable and non communicable diseases.
- Mention the common non communicable and chronic diseases.

### **3.0 MAIN CONTENT**

The main content of this unit is the definition of non communicable diseases, common types of non communicable diseases and level of awareness of the people about the non communicable diseases.

#### **3.1 DEFINITION OF NON COMMUNICABLE AND CHRONIC DISEASES**

Non communicable diseases are chronic conditions that do not result from an acute infectious process but they cause death, dysfunction, or impairment in the quality of life and usually develop over relatively long period at first without causing symptoms but after the diseases manifestations develop, there may be a period of protracted impaired health.

Generally, non communicable diseases are not transmissible from one person to others. They are also known as non-infectious diseases meaning the absence of a human reservoir.

#### **3.2 LIST OF COMMON NON COMMUNICABLE AND CHRONIC DISEASES**

A chronic disease is defined as a disease of long duration and generally slow progression. The four major chronic non communicable diseases are:

- Cardiovascular disease (CVD)
- Cancers
- Chronic Respiratory diseases (CRD)
- Renal diseases and
- Diabetes mellitus.

Collectively the above listed chronic-non-communicable diseases cause the greatest burden of disease world wide, whether measured as mortality (deaths) or morbidity (disability).

The WHO estimates that in 2005, out of 58 million deaths from all causes chronic diseases accounted for over 60 percent (35 million). This is more than double the number of deaths from all infectious diseases, maternal and per-natal deaths and deaths from nutritional deficiencies all combined.

#### **3.3 LEVEL OF AWARENESS OF PEOPLE ABOUT NON COMMUNICABLE DISEASES**

The level of awareness about the menace of non communicable and chronic diseases is increasing globally because of the number of preventable deaths occurring globally from this class of diseases. However the over whelming burden of

infectious diseases in sub-Saharan Africa of which Nigeria is a major part tend to mask the peoples' awareness of chronic diseases in this part of the globe inspite of the fact that deaths from chronic diseases is fast overtaking those from infectious diseases and this trend may continued in the next ten years except campaign for awareness is stepped up.

#### **4.0 SUMMARY**

In this unit you have learnt that Non communicable diseases are diseases that are not transmissible from one person to others. The level of awareness about Non communicable diseases is fast increasing world wide as they are now causing great diseases burden globally whether measure as mortality or cardiovascular diseases, cancers, chronic respiratory disease and diabetes collectively accounted. However, more awareness, campaign in needed in Nigeria.

#### **5.0 CONCLUSION**

Non communicable and chronic diseases is fastly becoming the greatest disease burden globally and awareness about them is rightly being stepped up world-wide. Although non communicable diseases are not transmissible from one person to others, they constitute a major cause of untimely and preventable deaths globally.

#### **6.0 TUTOR MARKED ASSIGNMENT**

- 1 Using your own words. State what you understand by non communicable and chronic diseases
- 2 A. What is the difference between communicable and non communicable diseases.  
B. Give example of non communicable diseases

#### **7.0 REFERENCES AND OTHER RESOURCES**

Adetokunbo O. Lucas, Herbert M. Gillies (2003) short Textbook of public Health Medicine for the Tropies  
WHO Reports 2000.

## UNIT TWO

### Aetiology and Epidemiology of Non Communicable and Chronic Diseases

#### **TABLE OF CONTENT**

- 1.0 Introduction
- 2.0 Objectives
- 3.0 Main Content
  - 3.1 Aetiology and Epidemiology of Non Communicable and Chronic Diseases
  - 3.2 Effectiveness of Non Communicable and Chronic diseases on global diseases burden
- 4.0 Summary
- 5.0 Conclusion
- 6.0 Tutor Marked Assignment
- 7.0 References

#### **1.0 INTRODUCTION**

Non communicable diseases include chronic diseases such as diabetes mellitus, obesity, diseases due to chronic wear and tear as arthritis in the joints. They also include occupational diseases, mental illnesses, genetic related diseases, tobacco and alcohol related diseases as well as heart disorders, other non communicable diseases of note include auto-immune diseases, metabolic disorders, other hormonal disorders such as mal functioning of thyroid gland resulting in hyper thyroidism, or hypothyroidism. All organs in the body have some diseases that can affect them which are not contagious and not transferable from person to person. Thus there exist diseases of the lungs, liver, nervous system etc not communicable from person to person.

#### **2.0 OBJECTIVES**

At the end of this unit, you should be able to discuss causes as well as the epidemiology in terms of determinants, distribution and deterrent of Non Communicable diseases.

Mention causes

Mention distribution in terms of age, sex and places

### 3.0 **MAIN CONTENT**

The main content of this unit is the Aetiology and Epidemiology of Non Communicable diseases

#### 3.1 Aetiology and Epidemiology of Non Communicable/Chronic diseases

It has been mentioned in unit one that Non Communicable diseases are not transmissible from one person to another and this means that there is no human reservoir who can serve as source of diseases to others. However while communicable diseases have definite aetiological agents, mode of transmission and host, the model need to be modified in dealing with non communicable diseases. In the first instance, instead of specific aetiological or causative agent, the non communicable diseases may result from many factors. Secondly, since there is no infective agent being transmitted, it becomes more appropriate to replace this with environmental or behavioral factors. Thirdly, host factors cannot be analyzed in terms of active or passive immunity but rather by way of the various host factors such as behavioral, social, psychological or genetic factors as well as level of affluence or poverty which modify the risk of developing these various diseases.

Common non communicable diseases include;

**Nutritional:** Diseases which include among others: scurvy, rickets, goiter, beriberi, pellagra, hypo carotinaemia and dental caries.

**Congenital:** Problems that are present at birth such as congenital hernia, congenital hearth diseases, down's syndrome, spinal bifida, undeveloped legs hand mostly due to drug taken by pregnant woman in the first ten weeks of the pregnancy when organ formation were going on.

**Intoxications:** Such as lead poisoning, iron poisoning, alcoholic currhosis of liver or alcoholic brain disease etc.

**Cardiac diseases:** Diseases of the heart and vessel i.e. Hypertension, heart failure.

**Mental Illness:** Such as psychosis (mania, schizophrenia) neurosis (Anxiety, depression) and puerperal psychosis.

**Tumor:** Which may be cancerous or non cancerous (benign) and these include

Cancer (skin, cervix, uterus, bladder, penises, or blood)

Benign (fibroids, breast lump, prostate .etc.)

**Hormonal aberrations:** Diabetes, Thyrotoxicosis

**Accidents:** Road traffic, industrial and home accidents.

**Occupational diseases** silicosis in workers of cement factory or quarry

**Degenerative diseases:** Such as arthritis in the joints, knee, hip, shoulder joints, tropical neurosis.

Each of this highlighted groups of the non communicable diseases above have their predisposing or risk factors which will be discussed in the next unit. These predisposing factors increase the chances of occurrence of the diseases in people who engage or embrace those factors while the chances of occurrence decrease in people who distant themselves from such factors.

**Epidemiology:** is the study of determinants and distribution of a health condition in human population as well as the frequency of its occurrence and what can be done to better it. The result of such study is to be used to control the health problem.

**Epidemiology:** has to do with causes which we have described as multifactorial for instance nutritional diseases may be caused by ignorance of what food items to take to prevent some nutritional diseases even when the food items are available, it may also be due to poverty when the food items are lacking altogether. Congenital diseases may be due to inappropriate drug ingestion by pregnant woman goes to market only to buy low quality soup ingredients for instance blighted tomatoes are associated with neural defects in new born when constantly taken by pregnant woman while genetic disorders like down's syndrome are connected with babies delivered when couple are advanced in age.

Cigarette smoking is associated with many of the cancerous diseases of the lungs, stomach, uterus bladder etc.

Mental illnesses, heart diseases, alcoholic intoxication may be related to inability of some people to adjust to stresses that life situation presents.

It is known that alcohol ingestion before driving vehicles or riding motor cycles increases the chances of road traffic accidents, while old age and simple overweight or obesity can predispose to arthritis and other degenerative diseases.

Epidemiology of a disease also has to do with the distribution of the disease in terms of where the diseases preponderates, urban or rural; high or lowland when is



the disease common; night or day, dry or rainy season, who the disease affect male or female, young or old. For example puerperal psychosis occurs in some women who have just delivered babies within the first two weeks of such delivery while goiter is commoner in hilly communities where erosion carry away their top soils and make their food items grown on such lack iodine and make goiter endemic.

Epidemiology of a disease also deals with what can be done to deter such disease from occurring, for instance provision of iodinated table salt to dwellers of a hilly community may reduce incidence of goiter in such community.

Generally non communicable diseases result from prolonged exposure to causative agents many at times this is associated with personal behaviours and environmental factors.

### 3.2 Effect of non communicable chronic diseases on global disease burden.

The world Health organization (WHO) estimates that of the 58 million deaths from all causes in 2005, non communicable chronic diseases accounted for over 60 percent (35million).

This was found to double the number of deaths from all infectious diseases and other disease combined.

In sub-Saharan Africa, of which Nigeria is a big one, infectious diseases also is a huge burden making the presence of non communicable diseases a dual burden. Except something urgent is done to stop the current trend of increasing incidence of non communicable diseases, death from non communicable diseases may overtake those from infection diseases in the next ten years.

## 4.0 **SUMMARY**

In this units you have learned that in Non communicable diseases there is no specific aetiological or causative agent and that the occurrence of the disease may be multi factorial some of which include environmental and behavioural, social, psychological and genetic factors. You are also acquainted with common examples of non communicable diseases such as goiter, liver cirrhosis, heart disease, mental illnesses, tumors and road traffic and industrial accidents.

Epidemiology has been shown to embrace causes, distribution and what can be done to control the occurrence of diseases but in this regard in relation to non communicable diseases.

## **5.0 CONCLUSION**

In conclusion the cause of non communicable diseases is mostly multifactorial and the factors include the environment, behavioural pattern, psychology disposition, social stand and genetic composition of affected individuals as the case may be.

## **6.0 TUTOR MARKED ASSIGNMENT**

1. What do you understand by aetiology of non communicable diseases?
2. Epidemiology of non communicable diseases: what is it?
3. What is the effect of non communicable diseases on global disease burden?
4. Give examples of non communicable diseases.

## **7.0 REFERENCES**

- Adetokunbo O. Kucas, Herbert M. Gilles: Short Textbook for Public Health Medicine for Tropics.
- Adetuyibi A. Companion to Clinical Medicine in the Tropics.
- WHO Reports 2000

## UNIT THREE

Predisposing factors to Non communicable or chronic diseases

### **TABLE OF CONTENTS**

- 1.0 Introduction
- 2.0 Objectives
- 3.0 Main content
  - 3.1 What are predisposing factors?
  - 3.2 Predisposing factors to Non communicable and chronic diseases.
- 4.0 Summary
- 5.0 Conclusion
- 6.0 Tutor marked Assignment
- 7.0 References

### **1.0 INTRODUCTION**

You have been informed in the unit two that there are no specific causes for most of the non communicable and chronic diseases and that what you have are multiple factors interplaying to produce the disease condition these factors are called predisposing factors. This unit is set to let you know the predisposing factors to non communicable diseases.

### **2.0 OBJECTIVES**

By the end of this unit, you should be able to;

- 1 Explain predisposing factors to non communicable diseases.
- 2 State the predisposing factors for the various groups of non communicable diseases.
- 3 List the common non communicable diseases and factors predisposing to their occurrence.

### **3.0 MAIN CONTENT**

#### **3.1 What are the predisposing factors?**

The predisposing factors for a health problem or disease are factors if present in a person readily contribute to the occurrence of such health problem or diseases in that person. For example factors such as dehydration, urinary stasis (or stagnancy in the bladder) chronic urinary infection, foreign object in the urinary bladder such as

fragments of catheter tubing, disease condition like gout or hyperparathyroidism, and immobility (as may occur when a person is immobile for twelve weeks in treating femoral fracture) predispose to the occurrence of urinary bladder stone formation in affected people.

### **3.2 PREDISPOSING FACTORS TO NON COMMUNICABLE DISEASES.**

Predisposing factors are also known as risk factors and various risk factors are associated with various non communicable disease conditions. The predisposing or risk factors are mainly of two groupings i.e. modifiable risk factors which are essentially attitudinal in nature and non modifiable risk factors which has to do with age, sex and related factors. Modifiable risk factors are those that can be modified through changes of attitude and behavior such as cigarette smoking, use of alcohol, use of some kinds of drugs and accumulation of excessive weight (obesity). Non modifiable risk or predisposing factors are those that a change of attitude can not influence such as sex, age, family history and genetic make up of people. Some risk factors will be mentioned for the common non communicable and chronic diseases.

**A CORONARY HEART DISEASE:** Are diseases of the heart that affect the blood supply to the muscle of the heart itself. The heart (cardiac) muscle like the tissue of other organs of the body needs constant supply of oxygen rich blood in order to function at optimal capacity which is necessary to sustain life. Some factors pose risks to the well being of the coronary vessel and these include modifiable factors such as cigarette smoking, High blood pressure, ingestion of alcohol, use of oral contraceptive, presence of stress such as marital stress, obesity and disease like diabetes mellitus. Non modifiable factors like age, sex, family history and personality trait.

**B CANCER:** A cancerous lesion is abnormal multiplication of cells of an organ or part of the body; such abnormal cells may invade normal cells and find their way (Meta stasis) into various organs of the body. Factors predisposing to development of various cancer states include;

**CANCER OF THE LUNG:** Smoking of tobacco depending on the age at which individual starts smoking; exposure to industrial carcinogens like asbestos, nickel,

silicon etc, and pollution of air in urban areas makes cancer more preponderant than in rural environment, family history.

**CANCER OF THE BREAST:** Predisposing factors that increase chance of having breast cancer include age at which a women has her first pregnancy, a women who has first pregnancy after Age of 30years has increase chance of having breast cancer. Other risk factors among others are early menarche, Age (increase rate after 40years) family history, and high consumption of fats and oil.

**CANCER OF CERVIX:** Risk factors include, age at first coitus (women who had first coitus early in life are at higher risk), sexual promiscuity, multiple sex partners, smoking, skin colour (commoner in black people than Caucasians) socio economic level (women whose husbands are poor stand greater risk).

**CANCER OF PROSTATE:** This is the cancer of the prostate gland in men and predisposing factors include industrial exposure to carcinogen, Age (chances increase with age), divorced /widowed men than those in stable marital relationship.

**C** **CHRONIC DISEASE:** Diabetes mellitus, diabetes mellitus is a disease due to inappropriate glucose metabolism resulting from lack of adequate supply of insulin or inability to function appropriately even when present in normal amount due to auto immunity. Predisposing factors resulting to prevalence of diabetes include pancreatic disease (pancreatitis), obesity, bad dietary habit, some form of stress (like surgery), sedentary life style. Unrestricted use of tobacco and tobacco products is now bringing globally a new ware of occurrence of chronic diseases particularly in the lungs resulting in chronic bronchitis, aggravating asthma, emphysema, ateleitasis and lung cancer.

**D** **ACCIDENTS:** Common accidents are road traffic accidents, motorcycle crashed, domestic accident, i.e. burns, poisoning, industrial accident, petrol explosion.

**ROAD TRAFFIC ACCIDENTS (RTA):** Risk factors contributing to prevalence of road traffic accident include poorly maintained vehicles, overloadry, bad roads, poorly maintained roads, driving under influence of alcohol, disregard for traffic signs.

#### **4.0 SUMMARY**

In summary it should be noted that predisposing factors for a health problem are factors if present in a person may increase the risk of getting the health problem. Common predisposing factors to communicable diseases mentioned in this unit include; coronary Heart disease - High blood pressure, cigarette smoking and stress: cancer – tobacco smoking, family history (cancer of lungs), sexual promiscuity and multiple sex partners (cancer and disregarding road traffic signs for traffic accidents).

#### **5.0 CONCLUSION**

In this unit we have define predisposing factors of diseases or health problems as factors increasing the risk of occurrence of such disease or health problem. Common predisposing factors for common non communicable health problems have been stated.

#### **6.0 TUTOR MARKED ASSIGNMENT**

1. Define predisposing factors of non communicable diseases.
2. Give examples of predisposing factors of common non communicable diseases.

#### **7.0 REFERENCES**

1. Adetokunbo. O. Lucas, Herbert M. Gilles: Short Textbook of Public Health Medicine for Tropics.
2. Wole Alakija MD: Essentials of Community Health

## **UNIT FOUR**

Ecological changes and their effects on non communicable diseases

### **TABLE OF CONTENTS**

- 1.0 Introduction
- 2.0 Objectives
- 3.0 Main content
  - 3.1 Ecology / Human Ecology
  - 3.2 Ecological changes and their effects on non communicable diseases
- 4.0 Summary
- 5.0 Conclusion
- 6.0 Tutor marked assignment
- 7.0 Reference

### **1.0 INTRODUCTIONS**

In this unit you will learn the effect of changes in human environment on the prevalence of non communicable diseases.

### **2.0 OBJECTIVES**

At the end of this unit you should be able to

Define human ecology

Explain ecological changes

Explain the effect of ecological changes on the prevalence of non communicable and chronic diseases.

### **3.0 MAIN CONTENTS**

3.1 Ecology is define as the relationship of living things to each other and to their environment

3.1.2 Human ecology has to do with the effects which changes in biological, physical, cultural, political and economic environment have on man. Human ecology posit that variation in main's environment and thus have effect on his state of health.

### 3.2 ECOLOGICAL CHANGES AND THEIR EFFECTS ON NON COMMUNICABLE DISEASES

Uncontrolled population growth in most developing countries of the world (Nigeria inclusive) has been accompanied with unprecedented ecological changes such as deforestation, ozone layer depletion (the layer that insulates man from scourging effect of the sun in the atmosphere) and stress as people contend for space and post with survival of the fittest approach.

It is no gain saying that ecological changes in developing countries contribute to the changing pattern of disease. Urbanization, industrialization and the wider use of motor vehicle have jointly increased the incidence of non communicable diseases such as respiratory problems associated with atmospheric pollution as well as road traffic accidents.

The shift from native diets to western diets by the educated class as well as the increasing use of tobacco, alcohol and other drugs have increased the risk of heart disease, stroke and other health problem as a direct result of the altered lifestyle . The changes in lifestyle have not occurred at the same rate in all developing countries and this accounts for the graded fashion by which ecological changes have effect on disease pattern coming from developing nations.

There is now an explosive increase in the prevalence of diabetes mellitus especially the adult form of the disease, the non insulin dependent diabetes mellitus (NIDDM) and this epidemic is traceable to the changing lifestyle by replacing natural whole grain, high – fibre diets with refined food coupled with engagement in sedentary job, and lack of physical exercise.

In attempt to cope with the stress of life the use of alcohol and cigarette is becoming rampant and so the increase in the incidence of cancer of the lungs, stomach, breast, cervix and prostate exposure to excessive temperature as may occur in manual labourers (exposed to sun or furnace may lead to heat exhaustion).

The presence of vehicle with expired engine life due to cash crunch on vehicle owners in developing countries has increased the number of vehicles emitting the dangerous gases and smoke thereby polluting the atmospheric air in most cities thereby increasing the prevalence of chronic respiratory diseases such as asthma and chronic bronchitis. All these ecological changes put together has increased disease burden due to non communicable diseases.



#### **4.0 SUMMARY**

In summary in this unit it has been stated that variations in man's environment have effect on his state of health. Road traffic accidents have increase as a result of driving under influence of alcohol, while chronic respiratory diseases prevalence is soaring due to atmospheric pollution. The use of tobacco is increasing the occurrence of cancerous lesions such as cancer of lungs and consumption of refined foods instead of natural whole grain, high – fibre diets has caused an explosive increase in the prevalence of diabetes mellitus in developing nations.

#### **5.0 CONCLUSION**

In this unit it has been shown that ecological changes will increase the prevalence of non communicable diseases.

#### **6.0 TUTOR MARKED ASSIGNMENTS**

Define human ecology

Discuss in brief in what ways has ecological changes affected the prevalence of non communicable diseases

How has uncontrolled population growth in developing countries contributed to ecological changes?

#### **7.0 REFERENCES**

- , \_ Adetokunbo O. Lucas, Herbert M. Gilles: Short Textbook of public Health  
Medicine for tropics
- , \_ Wole Alakija MD: Essential Community Health

## **MODULE TWO**

### **UNIT FIVE**

Signs and symptoms of non communicable diseases

#### **TABLE OF CONTENETS**

- 1.0 Introduction
- 2.0 Objectives
- 3.0 Main Contents
- 3.1 Symptoms and sign of non communicable diseases
- 4.0 Summary
- 5.0 Conclusion
- 6.0 Tutor marked assignment
- 7.0 References

#### **1.0 INTRODUCTION**

This unit is expected to expose to you the basic signs and symptoms of non communicable and chronic diseases

#### **2.0 OBJECTIVES**

At the end of this unit you should be able to

1. State the common symptoms of common non communicable and chronic diseases
2. State the common signs of non communicable and chronic diseases

#### **3.0 MAIN CONTENTS**

- 3.1 Common symptoms and signs of non communicable and chronic diseases

The Common non communicable diseases of interest are cardiovascular diseases, cancers, chronic respiratory diseases and diabetes mellitus and attempt will be made to state their common symptoms and signs.

#### **SYMPTOMS AND SIGNS OF HEART DISEASES**

The heart is the power house of the body from where blood that is rich in life giving gas (oxygen) is supplied to all tissues of the body to maintain the existence of

every man. When there is problem in the heart, its capacity to pump oxygen rich blood to other organs of the body becomes compromised. The symptoms (what the patient tell you) of heart disease include inter-alia shortness of breaths (Dyspnoea) on little exertion, shortness of breath or tendencies to get choke while lying flat on the back (orthopnea), swelling of feet, abdomen and face, easy tiredness (fatigability) and palpitations; when the client with heart disease see a health worker the likely signs to note may include coughing, observable shortness of breath, tachycardia (pulse rates mostly more than 100 beats per minute), pitting oedema, presence of ascites, crepitations at the base of the lungs and abnormal heart sound.

### **SYMPTOMS AND SIGNS OF HYPERTENSION (RAISED BLOOD PRESSURE)**

The normal blood pressure is mostly between 100/60 to 140/90 mmHg when the value is unusually low the condition is called Hypotension and when the value is unusually above the upper limits is called Hypertension. The risk of developing Hypertension is greater in people with family history of the disease in parents or siblings, executive people who undergo a lot of stress and consumers of large amount of salt and fats. Obesity and diabetes mellitus are also contributory.

The common symptoms of hypertension include inability to sleep (insomnia), persistent Headache temporarily relieved by use of analgesic but re occurs almost immediately the effect of the analgesics wears off, sometimes there is a feeling of heaviness at the back of the head. The major sign of hypertension is a blood pressure above 140/90mmHg. The level of rise in blood pressure above 140/90mmHg informs classification of Hypertension into mild (Diastolic of up to 100mmHg) or severe (diastolic above 110mmHg). However, Hypertension is known as a silent killer as the first sign may be sudden collapse and death of the victim.

### **DIABETES MELLITUS**

Is a disease due to abnormal glucose metabolism mostly resulting from insulin hormone deficiency either in quantity or action. The risk of developing diabetes mellitus is enhanced by family history” prolonged use of steroids in medication, Hypertension, obesity, sedentary lifestyle and excessive consumption of sugar. The common symptoms include excessive urination and thirstiness, crawling sensation in the limbs and sometimes impotence in men and loss of libido (having no desire for sex) in women. The sure sign is presence of sugar in the urine couple with excessive

sugar level in the blood both of which are only gotten through laboratory examination of urine and blood respectively.

### **CHRONIC RESPIRATORY DISEASES**

Include asthma, chronic bronchitis and Emphysema. The common symptoms of chronic bronchitis for instance include shortness of breaths, easy tiredness on little exercise, wheezing and cough, while the common signs include rhonchi on auscultation, and respiratory rate of more than 40 breaths per minute.

### **CANCER**

The symptoms and signs of cancer depend on the site of the tumor but the general symptom is loss of weight by the client and the swelling is initially mostly painless. Most of the signs observed in client with cancer are mostly pressure signs due to impinging nature of the cancerous mass on the adjoining organs or tissues and most cancer patients have anaemia.

#### **4.0 SUMMARY**

In this unit you have been acquainted with the common symptoms and sign of common non communicable and chronic diseases which include inter-alia, for heart the symptoms and signs include easy fatigability, palpitations, pulse rate above 100 per minute and oedema of the feet. For Hypertension, the symptoms and signs are insomnia, Headache and blood pressure above 140/90mmHg. For diabetes mellitus, the symptoms and signs include weight loss, excessive urination and excessive water ingestion, presence of sugar in the urine and hyperglycaemia; for asthma there is difficult breathing, with wheezing and rhonchi on auscultation while cancer presents with severe weight loss, anaemia and pressure signs depending the organ or tissue affected.

#### **5.0 CONCLUSION**

In this unit common symptoms and signs of common non communicable and chronic diseases have been stated and their mastery will help you in the management of these diseases.

## **6.0 TUTOR MARKED ASSIGNMENT**

What do you understand by symptoms and signs of a disease?

What are the common symptoms and signs of diabetes mellitus?

State the common symptoms and signs of heart disease.

## **8.0 REFERENCES**

- , \_ Adetokunbo O. Lucas, Herbert M. Gilles: Short Textbook of public Health  
Medicine for tropics
- , \_ Wole Alakija MD: Essential Community Health

## UNIT SIX

Management of non communicable chronic diseases

### **TABLE OF CONTENT**

- 1.0 Introduction
- 2.0 Objective
- 3.0 Main content
- 3.1 Management of non communicable and chronic diseases
- 4.0 Summary
- 5.0 Conclusion
- 6.0 Tutor marked Assignment
- 7.0 Reference

### **1.0 INTRODUCTION**

In this unit you will learn about management of non-communicable and chronic diseases

### **2.0 OBJECTIVES**

At the end this unit, you should be able to state the management of common non communicable diseases

### **3.0 MAIN CONTENT**

- 3.1 Management of non communicable and chronic diseases.

### **MANAGEMENT OF HEART DISEASES**

The management of heart diseases is aimed at correcting the abnormality causing the heart decompensation and treating the heart decompensation such as heart failure and abnormal heart beats.

The mode of treatment in heart diseases depends on the cause of heart diseases, for instance lowering of blood pressure may benefit a patient suffering from hypertensive heart diseases while surgical relief of a valvular obstruction, replacement of an incompetent valve or removing a calcified pericardium (heart covering hardened by calcium deposits) by heart surgeons may help the function of the heart of a patient.

Treatment of heart failure is along a standard line which includes inter-alia (a) the use of cardiotonic drugs to improve the functional capacity of the muscles of the heart i.e. digitalis in the appropriate dosage as advised by the doctor (b) the use of diuretics (drugs that improved excretion of water from the body) to combat abnormal salt and water retention which result in part from poor function of the heart muscles (c) appropriate dietary advice i.e. low salt intake (d) the use of antibiotics where there is associated infection.

### **MANAGEMENT OF CHRONIC RESPIRATORY DISEASE**

The management of chronic respiratory disease such as Asthma or chronic bronchitis aim at relieving obstruction to the airway that normally accompany asthmatic attack or chronic bronchitis. Management of asthma starts with attempt to decipher the allergen to which the client is reacting with bronchospasm. Where the allergen is discovered the client should be told to either remove the allergen from his surrounding or remove himself from the offending substance. The allergen may be pollen grain of some flowers in the compound in which case such flower may be uprooted and burnt or it may be odour from a nearby poultry, smoke etc. in the case of chronic bronchitis the offending substance may be chronic tobacco smoking. If the offending substance is removed from the environment of the client or the client is removed from the offending substance the condition may be alleviated. The treatment of bronchospasm is the use of broncho dilators to relax the contracting bronchial walls while mucolysers are used to breakdown the mucous secretions contributing to the occlusion of the bronchial space. If there is secondary infection in the chest appropriate antibiotics and could be used.

### **MANAGEMENT OF CANCER**

The management modality of a cancerous lesion depends on the duration and site of the lesion. For example the management of an early detected cancer of the breast that has not spread to adjoining tissues or systematically may include radical excision of the lesion, the breast cancer that has spread to adjoining tissue may be managed with performance of toilet mastectomy and radiotherapy and chemotherapy.

Cancer of the uterus or cervix may entail excision of the uterus (cutting off of the uterus) supported with chemotherapy (use of anticancer drugs) and radiotherapy (use of irradiation to kill cancer cells)

The aim of management of cancer is to eliminate cancer cells from the body by surgical removal, chemotherapy or radiotherapy.

## **MANAGEMENT OF DIABETES MELLITUS**

The management of diabetes mellitus depends on how early the disease is detected. Early detection of the disease may help in prevention of complications that usually accompany uncontrolled diabetes where complications have set in, the management of diabetes mellitus is that of the complications as they arise, and the long-term management is aimed at ridding the patient of symptoms of acute uncontrolled diabetes mellitus and at preventing long-term complications of the disease.

In regards of long-term management, most patients are relieved of distressing symptoms of excessive urination and thirst within a few days of commencing therapy even before biochemical control is achieved.

The aims of long-term management are twofold first to match the patient's carbohydrate intake with endogenous insulin supply, that is to reduce, carbohydrate intake in proportion to the small amount insulin available for its metabolism, and secondly to supply supplementary exogeneous insulin or drugs that can perform the same blood-sugar lowering function as insulin.

The summary of management of diabetes mellitus consists of (a) dietary carbohydrate reduction (b) insulin therapy, and (c) therapy with oral, non-insulin hypoglycemic (blood sugar-lowering) drugs.

### **4.0 SUMMARY**

In summary, the management of heart disease is aimed at correcting the abnormality causing the heart decompensation and treating the decompensation such as heart failure and abnormal heart beat. In the management of asthma the offending allergen is discovered and removed while a bronchodilator is used to ease breathing activity. In managing cancerous lesion the body cleared through chemotherapy and radiotherapy. Diabetes mellitus is managed by dietary



carbohydrate reduction, insulin therapy and or use of oral non-insulin hypoglycemic drugs.

## **5.0 CONCLUSION**

Management of non communicable and chronic diseases depend on their type and mode of presentation but the overall aim of management is to correct the cause and alleviate the effect of the disease.

## **6.0 TUTOR MARKED ASSIGNMENT**

1.0 State the overall aim you may wish to achieve in the management of a non-communicable disease.

2.0 What is the aim of a physician in the management of a heart disease?

3.0 What are the cardinal steps in the management of a woman with breast cancer?

## **7.0 REFERENCE**

- Adetuyibi. A : companion to clinical medicine in the tropics.

# UNIT SEVEN

Prevention and control measures of Non-communicable and chronic diseases

## **TABLE OF CONTENT**

- 1.0 Introduction
- 2.0 Objectives
- 3.0 Main Content
  - 3.1 Prevention and control measures of Non communicable and chronic diseases
- 4.0 Summary
- 5.0 Conclusion
- 6.0 Tutor marked Assignment
- 7.0 References

### **1.0 INTRODUCTION**

In this unit you will learn about prevention of non communicable and chronic diseases

### **2.0 OBJECTIVES**

At the end of this unit you should be able to

State the preventive and control measures for common non communicable and chronic diseases

State the basic difference between prevention and control of diseases

### **3.0 MAIN CONTENT**

- 3.1 prevention and control measures of non communicable and chronic diseases

## **PREVENTION OF NON COMMUNICABLE DISEASES**

To prevent is to keep from happening, so preventive measures for non communicable and chronic diseases are what can be done to keep non communicable diseases from occurring. Preventive measures for some non communicable and chronic diseases will be mentioned here

## **HEART DISEASE**

Preventive measures against heart diseases include avoidance of all the risk factors associated with occurrence of heart diseases such as avoidance of excessive intake of salt, cigarettes smoking, and ingestion of alcohol as well as avoidance of undue stress and prompt treatment of conditions such as hypertension. These will reduce the chances of developing heart diseases and heart failure.

## **CANCER**

Avoidance of alcohol may prevent occurrence of cancer of the stomach while avoidance of cigarette smoking may effectively prevent the occurrence of cancer of the lungs and cancer of the breast. Sticking to a single sex partner and having not more than four children (moderate parity) may prevent occurrence of cancer of the cervix

## **CHRONIC RESPIRATORY DISEASE**

Avoidance of smokes polluted air, odour of poultry dung's and dust may prevent attacks in people with Asthma and chronic bronchitis

## **DIABETES MELLITUS**

People with family history of diabetes should avoid sedentary life style and accumulation of excessive weight (obesity), they should also avoid excessive consumption of sugar that are readily absorbed such as glucose drinks, soft drinks and table sugar to prevent incidence of the disease

## **CONTROL MEASURES**

These are measures aimed at restraining or limiting the incidence of non communicable and chronic diseases. These measures are mostly public enlightenment campaign by non governmental organizations such as campaign government legislation against cigarette smoking in public places as an attempt to control incidence of cancers

### **4.0 SUMMARY**

In this unit you have learnt that to prevent a disease is to keep the disease from happening while to control is to limit the rate at which the disease occurs.

You have also seen that while preventive measures are mostly at the individual level, control measures are undertaken by groups or government, a glaring example is the legislation in some states in Nigeria against cigarette smoking in public places

## **5.0 CONCLUSION**

In conclusion, prevention of non communicable and chronic diseases is mostly individual effort in keeping the disease from occurring while control measures are mostly taken by groups or government.

## **6.0 TUTOR MARKED ASSIGNMENT**

1. What do you understand by preventive and control measures as regard non communicable and chronic disease?
2. Give two examples each of preventive measures for these non communicable/chronic diseases
3. Give an example of a control measure taken by the government in regard of a named non communicable disease condition

## **7.0 REFERENCE**

A.O Lucas; H.M.Gilles: Short Textbook of public Health Medicine for the Tropics

## UNIT EIGHT

Dimension of the problem of non communicable and chronic diseases, socio-cultural and occupational factors contributing to their occurrence.

### **TABLE OF CONTENTS**

- 1.0 Introduction
- 2.0 Objectives
- 3.0 Main Content
  - 3.1 Dimension of the problem of non communicable and chronic diseases, socio-cultural and occupational factors contributing to their occurrence
- 4.0 Summary
- 5.0 Conclusion
- 6.0 Tutor marked assignment
- 7.0 Reference

### **1.0 INTRODUCTION**

In this unit dimension of the problem of non communicable and chronic diseases as well as the socio cultural and occupational factors contributing to their occurrence will be highlighted.

### **2.0 OBJECTIVES**

At the end of this unit you should be able to:

Discuss the dimension of the health problem posed by non communicable disease

Discuss socio-cultural factors contributing to the occurrence of non communicable diseases

State occupational factors contributing to some non communicable diseases

### **3.0 MAIN CONTENT**

3.1 Problem of non communicable and chronic diseases, socio-cultural and occupational factors contributing to their occurrence.

The World Health Report by (WHO) of 1999 stated that in 1998, an estimated 43% of all global death for that year were attributable to non communicable diseases. It was

also stated that the yearly deaths in low and middle income countries of the world was 39%, while in high-income nations was 81%.

Another World Health Report states that of the 58million deaths from all causes in 2005, chronic diseases accounted for over 60% (35million). This was noted to double the number of deaths from all infectious diseases, maternal, perinatal condition and nutritional deficiencies combined. Many of the deaths from chronic diseases, occurred in those under the age of seventy (70) years.

Among non communicable diseases, mental and behavioural disorders are common, affecting more than 25% .of all people at some time during their lives. They are also global, afflicting people of all nations and communities, individuals of all ages, men and women, the poor and rich and as well the dwellers of rural and urban environments. World Health Report of 2001 put the figure at 10% of adult population of the world; those who have mental and behavioural disorders at any point in time. The report also states that about 10% of all patients seen by the primary health care professionals have one or more mental disorders, and that one in every four families is likely to have at least one member with a behavioural or mental disorder.

It could be seen from the above that the problem of non communicable and chronic diseases is of no mean dimension and as a result needed to be addressed squarely.

3.2 Socio – cultural and occupational factors contributing to the occurrence of non communicable and chronic diseases. The socio cultural environment as well as the occupation of the individual Plays an important role in determining the state of his physical and mental health. For instance social stresses including marital and family stresses are often identified as initiating and precipitating factors in acute mental disorder.

The type of parental care received by the growing child may also determine whether the child will be sociable (as may occur in a child who grows up in a friendly environment) or exhibit antisocial homes.

Hippocrates - the father of medicine in his article titled "Airs, water, places" offered timeless advice to physicians on sound environmental medicine; to consider the effects of seasons, to observe how men live, what they like, what they eat and drink or whether they love their work or not. In 1633 – 1714 Bernando Rammazzini expanded Hippocratic teaching on occupational and environmental influence on

health particularly on occupation and health development of occupational health continued until 1952 when a joint committee of WHO (world Health Organization) and ILO (International Labour Organization) defined occupational health as “the promotion and maintenance of the highest degree of physical, mental and social well being of workers in all occupations; the prevention among workers departures from health caused by their working conditions; the protection of workers in their employment from risk resulting from factors adverse to health; the placing and maintenance of the workers in an occupational environment adapted to his physiology equipment. Thus, occupational health is the adaptation of work to man and of each man to his job.

Some non communicable diseases are related to or caused by occupational exposure to some materials and susceptible people may need to be removed from some occupation to stop aggravation of disease conditions such diseases include occupational cancers such as nasal cancer, respiratory tract cancer, lung cancer, leukaemia from nickel, chromium, cadmium, coal tar and mineral; Allergic contact dermatitis from formal delayed and Asbestosis from cement and asbestos factors.

#### **4.0 SUMMARY**

In this unit you have learned that the dimension of the problem of non communicable diseases is enormous and that 43% of all global deaths in 1998 were due to non communicable diseases and that mental illness and behavioural aberration is commoner than generally thought. You have also learned that socio cultural and occupational factors contribute in no small measures to the occurrence of non communicable and chronic diseases and some people may be removed from their environment in order to stop the trend of disease affecting them.

#### **5.0 CONCLUSION**

The problems of non communicable and chronic diseases are of great dimension that need be tackled at all levels of decision making on health care delivery. No meaningful success could be obtained in the management, prevention and control of non communicable and chronic diseases if adequate recognition is not given to the effect of socio cultural and occupational factors in their occurrence.

## **6.0 TUTOR MARKED ASSIGNMENT**

Give a brief discussion on dimension of the problem of non communicable and chronic diseases globally.

Discuss the enormity of mental and behavioural disorder

What are the role of the environment and the occupation of people in the causation of non communicable and chronic diseases?

## **7.0 REFERENCE**

A.O Lucas; H.M.Gilles: Short Textbook of public Health Medicine for the Tropics



## MODULE THREE

### UNIT NINE

The role of individuals in the prevention and control of non communicable and chronic diseases

#### **TABLE OF CONTENTS**

- 1.0 Introduction
- 2.0 Objectives
- 3.0 Main Content
- 3.1 The role of individuals in the prevention and control of non communicable and chronic diseases
- 4.0 Summary
- 5.0 Conclusion
- 6.0 Tutor marked Assignment

#### **1.0 INTRODUCTION**

The individual have a role to play in the prevention and control of non communicable and chronic diseases. This unit attempts to discuss what the individual is suppose to do to prevent the disease from occurring or step the progress or control the disease when it occurs.

#### **2.0 OBJECTIVES**

At the end of this unit you are expected to

Discuss the role of individuals in preventing the occurrence of non communicable and chronic diseases

State the control measures that are needed to be employed by individuals to stem the trend of non communicable and chronic diseases.

#### **3.0 MAIN CONTENT**

- 3.1 The role of individuals in the prevention and control of non communicable and chronic diseases.

In module one,you learned about predisposing and risk factors affecting non communicable diseases some of which have to do with behavioural pattern of

individuals and if positively modified can prevent the occurrence of non communicable disease in the individual concerned. For example yielding to no tobacco smoking campaign early in life may prevent occurrence of cancers of the lung, stomach, breast or cervix while moderate or low consumption of sugar and avoidance of sedentary life style and avoidance of gluttony may prevent development of diabetes mellitus in susceptible individuals, living a happy, peaceful life style, in the family, at work place and among peers may effectively prevent mental disorders and Hypertension. When Hypertension is prevented by living a peaceful happy and stress free life style, the regular sad sequelae of Hypertension such as hypertensive heart and failure renal (kidney) failure or stroke (cerebrovascular accidents) are prevented.

Adherence to public health campaigns against the risk factors contributing to occurrence of non communicable and chronic diseases by individuals may stem the trend of the diseases. Legislation against cigarette smoking in public place by some state governments in Nigeria if adhered to by individuals will reduce the risk of passive smoking by non smokers in the society and this will lead to a reasonable control of cancer of the lungs in the general population.

Engagement in pains taking to identify allergens to which individuals react to produce disease condition such as asthma and avoidance of such allergens will go a long way in reducing the prevalence of asthma.

Early reporting of cases and presentation for early diagnosis and treatment in determining the prognosis of diseases, since early reporting and diagnosis often reduce mortality from such diseases

It could be seen from the above that appropriate behavioural modification on the part of individuals concerned may go a long way in reducing the incidence of non communicable and chronic diseases.

#### **4.0 SUMMARY**

In this unit you have learnt that positive response by individuals to campaigns such as no-tobacco smoking in public places may stem the trend of some non communicable diseases.

When individuals take pains to identify risk factors to common non communicable and chronic diseases and take steps to avoid such risk factors the

incidence of such diseases become reduced. Thus the role of individuals in prevention and control of disease can not be over looked.

## **5.0 CONCLUSION**

In conclusion appropriate behavioural changes on the part of individuals concerning the risk factors identified for non communicable and chronic diseases are required in the prevention and control of such diseases.

## **6.0 TUTOR MARKED ASSIGNMENT**

Discuss the role of individuals in the prevention of non communicable diseases

## **7.0 REFERENCE**

A.O. Lucas: H.M. Gillesi: Short Textbook of Public Health Medicine for the Tropics.

## UNIT TEN

The role of the community in the preventions and control of non-communicable and chronic diseases

### **TABLE OF CONTENT**

- 1.0 Introduction
- 2.0 Objectives
- 3.0 Main Content
- 3.1 The role of the community in the preventions and control of non-communicable and chronic diseases
- 4.0 Summary
- 5.0 Conclusion
- 6.0 Tutor Marked Assignment
- 7.0 References

### **1.0 INTRODUCTION**

This unit will explain the role of the community in the prevention of non-communicable and chronic diseases.

### **2.0 OBJECTIVES**

At the end of this unit you should be able to

Discuss the role of community in the prevention and control of non-communicable and chronic diseases

State the control measures that are needed to be employed by the community to reduce incidence of non-communicable and chronic diseases.

### **3.0 MAIN CONTENT**

- 3.1 The role of the community in the preventions and control of non-communicable and chronic diseases.

The pattern and type of disease prevented in a community depend on the culture, attitude and practices in the community particularly in relation to the predisposing factors of diseases in question. In communities where public smoking of cigarettes and use of tobacco products preponderate, incidence of cancers of the

lungs, stomach, colon or prostate may be on the increase whereas in communities where smoking is discouraged the incidence of these diseases decline. Thus community awareness campaign on the causes of non communicable diseases should be carried out in the various communities to educate the populace about the cause, effect and prevention of non communicable disease with a view to stemming the incidence of such diseases.

If communities are sensitized enough through sensitization campaign, members can become watchdogs in ensuring that public health laws such as prohibition of smoking of cigarette and tobacco products in public places are enforceable with a view to reducing incidence of passive smoking and by extension reducing incidence of cancer of the lungs. In mental illness traditional attitude to the illness include superstitious fear that the ill patients are possessed by evil spirits which is unfounded and illegal, these attitudes result in painful social stigma against the mental sick and often brings permanent prejudice against those who have fully recover.

The community needs to have a tolerant and understanding attitude to the mentally ill. In general a friendly and tolerant attitude to the victims of non communicable diseases will make victims to be at ease and seek solution to their problem.

#### **4.0 SUMMARY**

In summary the pattern and type of diseases prevalent in a community depend on the culture attitude and practices in that community, members of a community can help to achieve reduction of incidence of a particular non communicable disease if the community is sensitized enough about causes and prevention of the diseases through an awareness campaign.

#### **5.0 CONCLUSION**

In this unit you have learnt that awareness campaign about causes and prevention of non communicable diseases in community can go a long way in reducing the incidence of such diseases in the community.

#### **6.0 TUTOR MARKED ASSIGNMENT**

- a. Discuss the role of the community in the prevention and control of non communicable diseases.

- b. A friendly and tolerant attitude to the mentally ill is likely to encourage fast recovery. Discuss?
- c. What is your view about evil spirit theory about mental illness?

## **7.0 REFERENCE & FURTHER READING**

- Adetokunbo. O.L, Herbert M. G: Short Textbook of Public Health Medicine for the Tropics.
- Obinu C. N, Primary Health care for developing countries.
- The World Health Report (2001) Mental Health: now understanding; WHO, Geneva, Switzerland

## UNIT ELEVEN

The role of the Government in the control of non communicable diseases

### **TABLE OF CONTENT**

- 1.0 Introduction
- 2.0 Objectives
- 3.0 Main content
  - 3.1 The role of the Government in the control of non communicable diseases
  - 3.2 Further measures that Government may take.
- 4.0 Summary
- 5.0 Conclusion
- 6.0 Tutor marked Assignment
- 7.0 Reference

### **1.0 INTRODUCTION**

This unit will explain the role of government in the control of non communicable and chronic diseases

### **2.0 OBJECTIVES**

At the end of this unit you should be able to

Discuss the role of the government in the control of non communicable and chronic diseases

State the control measures that the government may take in curbing the incidence of non communicable and chronic diseases

### **3.0 MAIN CONTENT**

- 3.1 The role of the Government in the control of non communicable and chronic diseases.

No doubt the governments all over the world have played no mean role in the control of non communicable diseases mostly by way of promulgation and enforcing relevant public health laws and regulations to put in check incidence of non communicable disease, building of relevant infrastructures and creation of

institutions such as national cancer research institute to effect control of cancers, federal road safety corps to reduce incidence of road traffic accidents.

In Nigeria some of the ways the government is using to prevent and manage road traffic accidents include compulsory use of seat belt by motorists, safety helmets for motor cyclists, establishment of accident and emergency, unit in hospitals, making available transport from site of accidents to health care center, making available trained personnel for management of accident cases, imposition of speed limits and erection of speed breaks on roads where pedestals are of high destiny.

Governments also ensure proper data for accident cases, they also provide safety education on risk factors, traffic rules and safety precaution. In some developed nations, legal limit of alcohol have been fixed for 80mg /100ml and offenders who violate these rules are prosecuted as different to other. Thus reducing carnage on the roads.

Enactment of laws to discourage smoking of cigarette in public places also helps in reducing incident of cancerous lesions relating to tobacco use. In Nigeria the government encourage addition of iodine to the regular table salt and also encourages the use of iodinated salt by the public enlightenment campaign by ministry of health to reduce incidence of endemic goiter which is also a form of non communicable diseases.

### 3.2 **FURTHER MEASURES THAT GOVERNMENT MAY TAKE**

Although the governments at all levels have done well in promulgation of the relevant public health laws to deal with non communicable diseases, enforcement of the laws at all level of government in Nigeria for instance is not encouraging and this make people to break the laws with impunity. The political will to enforce the existing public health laws by the current actors in government is highly imperative.

## 4.0 **SUMMARY**

Promulgation and enforcement of public health laws is recognized role the government at all levels have played in the control of non communicable diseases. However, in Nigeria the political will on the side of main actors in governance to enforce such laws is mostly lacking. This attitude on the side of leaders have to change to achieve effective control of non - communicable diseases.



## **5.0 CONCLUSION**

In this unit we have stated the role of the government in the control of non communicable diseases to be of two kinds the promulgation of relevant public health laws. It has also been stated that this role of the government has been largely negated by lack of political will to enforce the laws.

## **6.0 TUTOR MARKED ASSIGNMENT**

State the role of government in the control of non communicable diseases  
What is the major obstacle against this role

## **7.0 REFERENCE**

- Wole Alakija MD Essentials of community Health
- Walter Lutz Linda Lockerbie, Joycelin Chalmers Wilma Hepburn Health and community surveys A practical manual for health and community Health Workers VOL 1

## UNIT TWELVE

The role of international agencies and non-governmental organization in the control of non-communicable diseases

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### **1.0 INTRODUCTION**

This unit will elucidate the role of international agencies and non governmental organizations in the control of non communicable diseases.

### **2.0 OBJECTIVES**

At the end of this unit you are expected to

Discuss the role of international agencies in the control of non communicable diseases and chronic diseases.

Discuss the role of non governmental organization in the control of non communicable diseases.

### **3.0 MAIN CONTENT**

#### 3.1 The role of international agencies

International agencies dealing with healthy issues and those that have things to do with the health of the people are of two varieties

## **A UNITED NATIONS AGENCIES SUCH AS**

- i. WHO (world Health Organization commissioned on 7/4/1948)
- ii. UNICEF (United Nation Children's Fund)
- iii. UNFPA (United Nation Fund for Population Activities)
- iv. FAO(Food and Agricultural Organization)
- v. ILO(International Labour Organization )

## **B BILATERAL AGENCIES**

- i. USAID(United State Agency for International Development)
- ii. Path finder of boston
- iii. Africare
- iv. IPPF (International Planned Parent hood Federation)

The international agencies particularly WHO, UNFPA and ILO have been actively involved over the years in putting forward regulations that enhance promotion of good health for all, for women or for workers of all shades ensuring good health irrespective of where people live and work. On the other hand these agencies have equally put forward regulations against risky behaviours or against risky factors of common non-communicable diseases. For example, because of unpalatable data from populations where cigarette smoking has been common for several decades having death toll for

90% of lung cancer

15-20% of other cancers

75% of chronic bronchitis/emphysema

25% of cardiovascular disease at ages 35 - 69years

16% of total annual death due to cancer cases (all of these are non communicable diseases). The WHO recommends a four pronged strategy which include

### **Ban advertising and expand public healthy information**

Forbid all forms of advertising and promotional distribution of tobacco products and sponsorship of sporting events

Disseminate public health information with special attention to youths, provide credible information about the health and other ill effects of smoking

1. **Use taxes and regulation to reduce consumption:**

Increased taxation – to reduce demand for tobacco products

Regulation to reduce public and workplace smoking

2. **Encourage cessation of tobacco use**

Promote the production and sale of less harmful, less expensive way of delivering nicotine through patches, tablets, inhalers or other means.

Expand free and / or subsidized smoking cessation services and product

Deregulate nicotine replacement product and increase access to smoking substitute product in developing countries.

3. **Build anti-tobacco coalition**

Use revenues derived from tobacco taxes to fund activities that support tobacco control

Fund transition to other employment for tobacco farmers and others who would lose incomes as a result of tobacco control

4. Mobilize civil society and other groups to promote the message: Tobacco or Health

3.2 The role of the Non government organization

Examples of Non-governmental organizations include

Rotary International

Red Cross

Lions Club

Christian Health Association of Nigeria (CHADN)

Ford Foundation

Rockefeller Foundation

Lambo Foundation

Carver Foundation

Welcome Foundation

Many of the non governmental Association spend their money in supporting health promoting programmes in their areas of interest e.g. Lambo foundation engages in promotion of mental health. Some of the Non governmental organization support capacity building of health workers in their area of interest to make the specialist health professionals to be more proficient in the discharge of their duties.

Carter foundation takes interest in prevention of blindness and care of the blind while Red Cross takes care of victims of wars, natural disasters and accidents. Most of the non governmental organization gives financial and material support to governments and communities to care for specific diseases.

#### **4.0 SUMMARY**

The international agencies and non-governmental agencies play enormous role in the control of non communicable and chronic diseases around the globe. The international agencies are of two types

United Nation agencies and bilateral agencies

Examples of United Nation agencies are WHO, UNICEF, UNFPA and FAO while example of bilateral agencies are USAID, and AFRICARE. Non-governmental agencies of importance are Rotary international, Red Cross, Lions Club, Christian Health association of Nigeria, Ford foundation and carter foundation among others.

The international agencies have done a lot in putting forward health promoting regulations while the non-governmental agencies have supported health programmes financially and materially over the years.

#### **5.0 CONCLUSION**

In conclusion this unit has availed you with the role of international agencies and non governmental agencies in the control of non communicable and chronic diseases. The front line united nations agencies have been stated as well as some bilateral agencies, and some non governmental agencies. The overall aim of these agencies is to reduce the disease burdens due to non communicable and chronic diseases.

## **6.0 TUTOR MARKED ASSIGNMENT**

- Discuss the role of international agencies in the control of non communicable and chronic diseases world wide with particular reference to control of cancer of the lungs.
- In what ways have the non governmental agencies supported health programmes in your area?

## **7.0 REFERENCE**

Adetokunbo. O.A, Gilles H.M,; Short Textbook of public Health Medicine for the Tropics.

Obionu. C.N, Primary Health Care for developing countries (2001)

WHO (1984) Mental Health Care in developing countries, Technical Report series, 698.WHO Geneva.