



**Federal Ministry Of Health, Nigeria**

**FAMILY PLANNING TRAINING**  
*for*  
**PHYSICIANS AND  
NURSES/MIDWIVES**  
*in the*  
**PRIVATE SECTOR**

**NATIONAL TRAINING MANUAL**

## FOREWORD

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In response to emerging global trends in Family Planning and Reproductive Health Practice, the 2004 National Training Manual on Family Planning for Physicians and Nurses/Midwives has been updated for the training of service providers in the Private Health Institutions. This is consistent with the policy directives of the Federal Government and in line with the 2008 WHO Medical Eligibility Criteria (MEC).

The abridged training manual was developed to cater for providers in the Private Health Sector who do not have the luxury of time to attend trainings for long periods of time at a stretch and yet need to be equipped with current and updated teachings for provision of quality Family Planning services. The training approach provides learning through classroom teaching integrated with practical demonstrations of skills by trainees through role-plays, exercises, group exercises and practical experience at the service delivery points. Throughout the duration of the training, participants will be trained to acquire the knowledge, skills and attitudes that are needed to provide quality Family Planning services.

I hope that **this abridged edition** of the National Training Manual will improve the technical competence and confidence of service providers in the private health sector, and ultimately, increase quality and access to family planning provision and services within the country in line with global standard.

I approve the use of this manual for the training of Family Planning service providers in the private sector in Nigeria.

Prof. C.O. Onyebuchi Chukwu  
Honourable Minister of Health

## ACKNOWLEDGEMENT

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The Department of Family Health, Federal Ministry of Health would like to extend its sincere thanks and gratitude to persons and organisations who contributed to the making of the National Training Manual on Family Planning for Physician and Nurses/Midwives in the private sector.

Special thanks go to the consultants from the Federal Tertiary health institutions who worked tirelessly during the review process. We applaud their effort and their unflinching support.

I hereby express my appreciation to all partners especially Nigerian Urban Reproductive Health Initiative (NURHI) and the Society for Family Health (SFH) who participated in the process leading to the production of the training manual.

Finally , I wish to acknowledge the immense technical contributions and leadership provided by the following officers, Dr. Bose Adeniran, Deputy Director Reproductive Health Division, Mrs Adebisola Salako, Mrs Nneka Oteka and Mrs Yemisi Akinkunmi.

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Department of Family Health  
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Society for Family Health

Nigerian Urban Reproductive Health Initiative

Planned Parenthood Federation of Nigeria  
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Usman Dan Fodio University Teaching Hospital  
Jos University Teaching Hospital  
Oyo State Ministry of Health  
Ahmadu Bello University Teaching Hospital Zaria  
University of Ilorin Teaching Hospital  
University of Maiduguri Teaching Hospital  
University of Uyo Teaching Hospital  
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## ACRONYMS

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RH	Reproductive Health
FP	family Planning
MEC	Medical Eligibility Criteria
SFH	Society for Family Health
NURHI	Nigerian Urban Reproductive Health Initiative
FHI	Family Health International
WHO	World Health Organization
IEC	Information Education and Communication
COPE	Client Oriented Provider Efficiency
HIV/	Human Immunodeficiency Virus
AIDS	Acquired Immune Deficiency Syndrome
FMOH	Federal Ministry of Health
FCDA	Federal Capital Development Authority
IPCC	Interpersonal Communication and Counselling
LAM	Lactational Amenorrhea Method
MIS	Management Information System
CHEW	Community Health Extension Worker
VHW	Voluntary Health Worker
NPP	National Population Policy
NDHS	National Demographic and Health Survey
IUGR	Intra Uterine Growth Retardation
FGM	Female Genital Mutilation
FGC	Female Genital Cutting
PLWHA	People Living with HIV/AIDS
BP	Blood Pressure
EMU	Early Morning Urine
NFP	Natural Family Planning
FAM	Fertility Awareness Method
LAM	Lactational Amenorrhea Method
SDM	Standard Method
COC	Combined Oral Contraception
POP	Progestine-only Pills
ECP	Emergency Contraceptive Pills
ARV	Anti Retro Viral
CIN	Cervical Carcinoma in Situ
DMPA	Depot-Medroxy-Progesterone Acetate
NET-EN	Norethisterone Enanthate
IUCD	intra Uterine Contraceptive Device
PPIUD	Post Partum Intra Uterine Device
ARH	Adolescent Reproductive health
PID	Pelvic Inflammatory Disease
VSC	Voluntary Surgical Contraception

LHRH	Luteinizing Hormone Releasing Hormone
HCG	Human Chronic Gonadotropin
SH	Sexual Health
VVF	Vesico Vaginal Fistula
RVF	Recto-Vaginal Fistula
PAC	Post Abortion Care
MVA	Manual Vacuum Aspiration
CFA	Client Flow Analysis
NHMIS	National Health Management information system
RIRF	Requisition Issue and Report Form
HAART	Highly Active Antiretroviral Therapy
PMTCT	Prevention of Mother to Child Transimssion
HPV	Human Papiloma Virus
CRR	Cost Recovery Record
CSP	Clinical Service Provider
IVF	In-vitro Fertilization
AI	Artificial Insemination

# COURSE DESIGN FOR FAMILY PLANNING TRAINING FOR PHYSICIANS AND NURSES/MIDWIVES

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This curriculum program is designed to provide Physicians and Nurses/Midwives with the necessary skills needed to offer Family Planning Services safely and ethically.

## COURSE GOAL

- ✿ To strengthen the capability of the participants in the areas of Knowledge, Attitude and Skills in Contraceptive technology needed to offer safe and appropriate family planning services

## TRAINING OBJECTIVES

- ✿ Discuss population dynamics in relation to development
- ✿ Describe the components of Reproductive Health (RH)
- ✿ Explain how each family planning method prevents pregnancy and its performance characteristics
- ✿ Counsel client interested in using family planning
- ✿ Discuss the indications, precautions and contraindications for each method.
- ✿ Perform client assessment including History, Physical Examination and Laboratory investigations
- ✿ Provide family planning methods appropriate to clients need.
- ✿ Use recommended infection prevention practices in the provision of family planning services to minimize the risk of Hepatitis B, HIV, and other infections.
- ✿ Provide family planning services for groups with special needs like adolescents, PLWA, the mentally challenged and refugees.
- ✿ Follow-up clients and manage side effects / complications for all family planning methods.
- ✿ Maintain accurate and appropriate family planning records
- ✿ Refer clients with other Reproductive Health problems including STIs, Infertility, Reproductive Tract tumours etc.

## COURSE DESIGN

- ✿ The course consists of classroom and clinic sessions that focus on key aspects of service delivery. Successful completion of the course will be based on development of right attitude and mastery of skills.

## DURATION

## 4 Weeks for Physicians and Nurses/Midwives

### TEACHING / LEARNING METHODS

- ✿ Discussion
- ✿ Illustrated lectures
- ✿ Individual and group exercises
- ✿ Role play
- ✿ Brainstorming sessions
- ✿ Case studies
- ✿ Simulated practice
- ✿ Guided clinical activities
- ✿ Demonstration / Return demonstration

### TEACHING MATERIALS

- ✿ Teaching Videos
- ✿ Handouts
- ✿ Anatomic models – Pelvic, Arm, Plus Instruments
- ✿ Audio-visual aids
- ✿ Writing board
- ✿ Flip chart
- ✿ Multimedia projector
- ✿ Reference materials

### EVALUATION

- ✿ Participant
- ✿ Pre and post – course questionnaire
- ✿ Counselling and clinical skills checklist
- ✿ Course – Course Evaluation

### INTRODUCTION TO FAMILY PLANNING

- ✿ Demography and population issues
- ✿ Components of Reproductive Health (RH)
- ✿ History and benefits of Family Planning

### REPRODUCTIVE ANATOMY AND PHYSIOLOGY

- ✿ Anatomy and Physiology of the male and female reproductive systems
- ✿ Conception

### CLIENT ASSESSMENT

- ✿ History taking

- ✿ Physical examination
- ✿ Laboratory investigations

## **INTERPERSONAL COMMUNICATION AND COUNSELLING (IPCC)**

- ✿ Communication processes in Family Planning
- ✿ Use of I.E.C. materials in Family Planning
- ✿ Counselling techniques

## **CONTRACEPTIVE TECHNOLOGY**

- ✿ Abstinence and Coitus Interruptus
- ✿ Natural Family Planning Methods/Lactational Amenorrhea Method (LAM)
- ✿ Barrier Methods
- ✿ Hormonal Contraceptive
- ✿ Intra – Uterine Contraceptive Devices
- ✿ Voluntary surgical contraceptives
- ✿ Emergency contraception
- ✿ New trends in family planning

## **QUALITY OF CARE IN FAMILY PLANNING**

- ✿ Steps in clinic setting
- ✿ Management Information System in FP services
- ✿ Introduction to MIS Tools in FP
- ✿ Elements to quality of care

## **INFECTION PREVENTION**

- ✿ Introduction and definition of terms
- ✿ Aseptic technique
- ✿ Use of antiseptics and disinfectants
- ✿ Steps for processing instruments
- ✿ Use and disposal of needles and sharps
- ✿ Housekeeping and waste disposal

## **INTEGRATED SERVICES IN REPRODUCTIVE HEALTH**

- ✿ Sexually Transmitted Infections/HIV/AIDS
- ✿ Cervical cancer screening services
- ✿ Male Involvement

# ***MODULE 1***

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## MODULE 1

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### INTRODUCTION TO FAMILY PLANNING

The main aim of this module is to provide trainees with a broad overview of family planning (FP) and Reproductive Health (RH) issues in Nigeria.

**Session 1:** Demography and Population Issues

**Session 2:** Components of Reproductive Health (RH)

**Session 3:** History and benefits of Family Planning (FP)



## MODULE ONE PLAN - INTRODUCTION TO FAMILY PLANNING

SESSION	DURATION	OBJECTIVES	METHODS	MATERIALS
<b>Session 1:</b> Demography and Population Issues	1 hour 30 minutes	<ul style="list-style-type: none"> <li>☼ Define demography and population indices</li> <li>☼ Discuss the impact of population factors and socio-economic development viz-a-viz agriculture, health, education and employment.</li> </ul>	<ul style="list-style-type: none"> <li>☼ Illustrated lecture</li> <li>☼ Discussion</li> <li>☼ Brainstorming</li> </ul>	<ul style="list-style-type: none"> <li>☼ Writing board and chalk or markers</li> <li>☼ Flipcharts and markers</li> <li>☼ Poster/fact sheets on Population dynamics</li> <li>☼ National Population Policy Handbook</li> <li>☼ National RH policy</li> <li>☼ RH Strategic Framework</li> <li>☼ Multimedia projector</li> </ul>
<b>Session 2:</b> Components of Reproductive Health	1 hour	<ul style="list-style-type: none"> <li>☼ Define RH and RH care</li> <li>☼ Discuss the implications of WHO (1994) definition of RH</li> <li>☼ Explain the components of RH (the 12 pillars)</li> <li>☼ Discuss the status of each pillar of RH in Nigeria</li> <li>☼ Explain the importance of RH</li> </ul>	<ul style="list-style-type: none"> <li>☼ Illustrated lecture</li> <li>☼ Brainstorming</li> <li>☼ Discussion</li> </ul>	<ul style="list-style-type: none"> <li>☼ Multimedia projector</li> <li>☼ Flip chart and markers</li> <li>☼ Writing board and chalk or markers</li> </ul>
<b>Session 3:</b> History and benefits of F/P	2 hours	<ul style="list-style-type: none"> <li>☼ Describe the history and progress of FP</li> <li>☼ Discuss the benefits of FP</li> </ul>	<ul style="list-style-type: none"> <li>☼ Illustrated lecture</li> <li>☼ Brainstorming</li> <li>☼ Discussion</li> <li>☼ Group exercises</li> </ul>	<ul style="list-style-type: none"> <li>☼ Multimedia Projector</li> <li>☼ Writing board and chalk</li> <li>☼ Flip chart and markers</li> </ul>

### Time

1 hour 30 minutes

### Learners' Objectives

By the end of the session, participants will be able to:

- ⊗ Define demography and population indices
- ⊗ Discuss the impact of population factors on socio-economic development viz-a-viz agriculture, health, education and employment.

### Session Overview

- ⊗ Definition of demography and population indices
- ⊗ Population indices in Nigeria
- ⊗ Effects of population factors on socio-economic development

### Methods

- ⊗ Illustrated lecture
- ⊗ Discussion
- ⊗ Brainstorming

### Materials

- ⊗ Writing board and chalk or markers
- ⊗ Flipchart and markers
- ⊗ Posters and fact sheets on Population dynamics
- ⊗ National Population Policy.
- ⊗ National RH Policy
- ⊗ Multimedia projector

## Content

### Definitions

#### a. Demography

Demography is the statistics of birth, deaths, and diseases etc. that show the condition of a community.

#### b. Population

The number of inhabitants found within a given area. The 2006 census put Nigeria's Population at 140,431,790 (One hundred and forty million, four hundred and thirty one thousand seven hundred and ninety). With this population, Nigeria is the most populous nation in Africa. If the population growth continues unchecked, it will double in 25 years.

#### c. Population Growth Rate

The rate at which a population is increasing or decreasing in a given year due to natural increase (birth minus deaths). The current growth rate is 3.2 % (NDHS 2008). This is considered to be one of the highest in the world.

#### d. Total Fertility Rate

This is the average number of children a woman can have throughout her childbearing years, i.e. 14 – 49 years. In Nigeria, this is 5.7 (NDHS 2008).

#### e. Dependency Ratio

This is the ratio of the economically dependent part of a population to the productive part i.e. the elderly (65+ yrs) and the young (15 yrs and below) to the population in the "working ages" (15-64 yrs). 45% of the Nigerian population is under the age of 15 while 4% is 65 or older, combined with children under the age of 15 years, means that approximately half of the population is dependent. This indicates that Nigeria's population is young; a scenario typical of countries with high fertility rates.

## Effects of Population factors on Socio-Economic Development

### Agriculture

Agriculture remains the basis of life. The growth of the agricultural sector has been slow compared with a population growth rate of 3.2% (Census 2006). Over the years there has been a dwindling of the dominant role of agriculture in the economy, especially in terms of foreign exchange earnings for the country.

### Health

Crude birth rate is the number of births per 1,000 of the population per year while the death rate is the number of deaths per 1,000 persons per year. According to the 2006 census, the crude birth rate was 44.6 while the crude death rate was 14.

The difference between the birth rate and the death rate is the natural increase in the population.

- |                            |                                    |
|----------------------------|------------------------------------|
| a. <b>Birth Rate</b>       | 44.6                               |
| b. <b>Death Rate</b>       | 14                                 |
| c. <b>Natural Increase</b> | 30.6 (Number per 1,000 population) |

In Nigeria, there has been a decrease in death rate. The fall in death rate is a result of improved health services. Despite this success, there is increasing demand for more health services for the rapidly expanding population. This is compounded as a result of inadequate funding, infrastructure and human resources.

To ensure that health care delivery gets to the target population in the rural areas, primary health care is in operation. This is aimed at reducing both infant and maternal morbidity and mortality rates.

#### d. **Maternal Mortality Ratio**

This is the number of maternal deaths per 100,000 live births. Results from the 2008 NDHS; show that the estimated maternal mortality ratio is 545 maternal deaths per 100,000 live births

### e. **Family Planning**

Family planning which can reduce unwanted and high-risk pregnancies will help to positively reduce Nigeria's high maternal mortality ratio. In the 2008 NDHS, 72% of all women and 90% of all men knew at least one contraceptive method. This has however not translated into use as the current use of modern contraceptive methods remains a low 10%.

### f. **Infant Mortality Rate**

This is the number of infant deaths per 1,000 live births. In Nigeria, it is 75 compared with 6.6 in the U.S. In Ghana the infant mortality rate is 50 and 99 in Liberia. Child spacing will help to reduce Nigeria's infant mortality rate. (Population Reference Bureau 2009)

## **Education**

A high birth rate, coupled with a new national policy on education has resulted in an increase in the number of:

- ✿ Primary school enrolment
- ✿ Primary school teacher requirement
- ✿ Primary schools required

The Universal Basic Education (UBE) system, launched in October 1999, made it compulsory for every child to be educated free of tuition up to junior secondary level in an effort to meet Nigeria's manpower requirements for national development

## **Employment**

The number of school leavers continues to increase. The problem of unemployment is exaggerated by the movement of the people from the rural to the urban areas in search of paid employment and social amenities (urbanization).

## **Summary**

- ✿ Demographic factors
- ✿ Impact of population factors on socio-economic development. Under the health factor, maternal and child health improve when pregnancies are spaced and family sizes are smaller.

## Evaluation

- ☞ Define 3 demographic indices
- ☞ List 4 population factors that affect socio-economic development

## MODULE 1 SESSION 2: COMPONENTS OF REPRODUCTIVE HEALTH (RH)

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### Time

1 Hour

### Learners' Objective

By the end of the session, participants will be able to:

- ✿ Define RH and RH care
- ✿ Discuss the implications of the WHO (1994) definition
- ✿ Explain the Components of RH (the 12 pillars)
- ✿ Discuss the status of each Pillar of RH in Nigeria
- ✿ Explain the importance of RH

### Session overview

- ✿ Definition of RH
- ✿ Implication of the definition
- ✿ Definition of RH care
- ✿ Components of RH
- ✿ Importance of RH (Recommendations of WHO on RH)

### Methods

- ✿ Illustrated lecture
- ✿ Brainstorming
- ✿ Discussion

### Materials

- ✿ Multimedia projector
- ✿ Flipchart and markers
- ✿ Writing board and chalk or markers

## Content

### Definition of Reproductive Health

“Reproductive health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity, in all matters relating to the reproductive system and to its functions and processes.”

(WHO, 1994)

### Implication of the Definition

- ⊗ That people are able to have a satisfying and safe sex life;
- ⊗ That they have the capability to reproduce and, the freedom to decide if, when, and how to do so.
- ⊗ The right to be informed and have safe, effective, affordable and acceptable methods of family planning of their choice, as well as other methods of their choice for regulation of fertility that are not against the law;
- ⊗ The right to access appropriate health-care services that will enable women to go safely through pregnancy and childbirth and provide couples with the best chance of having a healthy infant.

### Definition of Reproductive Health Care

*“Reproductive health care is defined as the constellation of methods, techniques and services that contribute to RH and well-being by preventing and solving RH problems. It also includes sexual health, the purpose of which is the enhancement of life and personal relations, and not merely counselling and care related to reproductive and sexually transmitted diseases.”*

(United Nations, 1994)

Hence, the concept of Reproductive Health recognizes the diversity of the special needs of women before, during and beyond child-bearing age as well as the needs of men.



## Components of Reproductive Health

There are twelve pillars of Reproductive Health (RH), namely: the status of women, family planning, maternal care and safe motherhood, Abortion, reproductive tract infections and HIV/AIDS, Infertility. Others are nutrition, infant and child health, adolescent reproductive health and sexuality, sexual behaviour and harmful sexual practices, environmental and occupational health, reproductive tract malignancies.

### 1. Status of Women

- ⊗ Nigeria is still far from achieving gender equality with respect to some basic human needs, such as nutrition, education, health, human rights, income or personal security.
- ⊗ Sweden is the only country in the world where 50% of the members of both the government and parliament are women.
- ⊗ As late as 1992, no ministerial positions were held by women in some 100 Member state of the United Nations.
- ⊗ More than 40 years ago, the Universal Declaration of Human Rights asserted that “*everyone has the right to education.*” Today, about 130 million children are still not enrolled in primary school and 70% of them are girls.
- ⊗ The ICPD (Cairo, 1994), emphasized that the elimination of social and economic discrimination against women is a prerequisite for:
  - reducing poverty
  - promoting economic growth, and
  - achieving sound population policies.

### 2. Family Planning

- ⊗ A primary health strategy with important benefits for both maternal and child health;
- ⊗ An important component of the strategies adopted to combat rising maternal mortality as indicated in the Safe Motherhood Initiative.
- ⊗ As direct causes are responsible for most maternal deaths in Nigeria, Family Planning (FP) can save lives.

### Role of Family Planning

- ⊗ Helps women to protect themselves from unwanted pregnancies
- ⊗ Saves lives of children by helping women space births
- ⊗ Improves family well-being
- ⊗ Helps nations develop
- ⊗ Gives everyone better opportunity for a good life

### 3. Abortion

- ✿ Abortion is the discontinuation of pregnancy before the foetus becomes viable
- ✿ Spontaneous abortion (miscarriage) occurs naturally, without willful intervention; rarely associated with death
- ✿ Induced abortion (termination) occurs with intervention, and can be associated with severe morbidity and mortality

### 4. Maternal Care and Safe Motherhood

Maternal health provides a good example for the modern myth of progress, as illustrated in the table on the next page.

#### Maternal Deaths are Highest in Women

- ✿ Who are too young (less than 18 years)
- ✿ Who have had too many children
- ✿ Who have had children too soon i.e. less than 24 months interval
- ✿ Who have a medical or obstetric history that puts them at risk
- ✿ Who have children too late
- ✿ Who do not want another pregnancy and may resort to unsafe abortion

#### Maternal Mortality per 100,000 Live Births

REGION	2006
Africa	910
The Americas	140
South-East Asia	460
Europe	39
Eastern Mediterranean	460
Western Pacific	80

(WHO, 2006)

#### Safe Motherhood - The Four Elements

These are:

- ⊗ Adequate primary health care and an adequate share of the available food for girls from infancy to adolescence; family planning services to avoid unwanted or high-risk pregnancy.
- ⊗ Appropriate prenatal care, including nutrition counselling, prevention, early detection and treatment of abnormalities and referral of those at high risk.
- ⊗ The assistance of a trained person for all women during child birth at home as in the hospital.
- ⊗ Access to effective care for all emergency obstetric conditions

## **Safe Motherhood in Nigeria - The Issues**

### **Health Services Delivery Problems**

- ⊗ Ignorance – which prevents utilization of existing facilities in an effective manner
- ⊗ Poor transportation system including bad roads and absence of vehicles for quick referral services
- ⊗ Inadequate and poorly equipped health facilities
- ⊗ Inadequate health manpower

### **Socio-Cultural Factors**

- ⊗ Early marriage and childbirth
- ⊗ Male sex preference
- ⊗ Food taboos during pregnancy
- ⊗ Aversion to operative deliveries
- ⊗ Poor nutritional status in childhood, particularly girls
- ⊗ Low status of women in the society
- ⊗ Harmful traditional practices such as female circumcision
- ⊗ Preference of “Prayer Homes”
- ⊗ Ignorance and illiteracy
- ⊗ Poor attitude of healthcare providers

### **Legal and Policy Concerns**

- ⊗ Lack of policy to discourage early marriage

## 5. Sexually Transmitted Infections and HIV/AIDS

### Incidence

- ⊗ Impossible to determine incidence in Nigeria
  - Overcrowded hospitals busy with life-threatening and endemic diseases
- ⊗ However, incidence appears to be on the increase due to liberal attitude towards sex, especially among adolescents
  - Myths and misconceptions
    - urethral discharge as evidence of sexual potency
    - sexual intercourse with virgins as a cure for resistant urethritis
- ⊗ High prevalence rate in developing countries in general as compared to developed ones

## 6. Infertility

- ⊗ Infertility per se may not threaten physical health, but may have serious impact on the mental and social well being of couples
- ⊗ It may also result in serious social consequences, such as divorce or ostracism.
- ⊗ WHO (1992) estimated that there were some 60 – 80 million infertile couples worldwide

### Definition

This is involuntary failure to conceive within 12 months of commencing unprotected and regular intercourse.

- ⊗ Primary infertility – no previous pregnancy
- ⊗ Secondary infertility – had a previous pregnancy, (whatever the outcome)
- ⊗ Pregnancy waste – Cannot maintain pregnancy long enough for the foetus to become viable

### Prevalence

- ⊗ 10% to 15% of married couples of reproductive age

### Source of Problem

Sole cause in the female	30%
Sole cause in the male	30%
Combined cause	30%
No recognizable cause	10%

## Advances in Management

- ✿ The last two decades witnessed a most spectacular progress in the management of infertility and assisted reproduction
- ✿ However, the high cost of some of these procedures make them virtually impossible to offer them as public health services in the majority of developing countries

## 7. Nutrition

- ✿ Nutrition is one of the most important factors contributing to the epidemiological pattern of reproductive health
- ✿ Low birth weight – the most powerful single predictor of death in the first few months of life is *inter alia* a function of intrauterine nutrition.
- ✿ W.H.O. estimates that approximately 25 million or 17% of the 142 million infants born in 1990 had a low birth weight; 23.6 million of these were born in developing countries, where the percentage of low birth weight infants reached 19%
- ✿ Intrauterine Growth Retardation (IUGR) is known to cause decreased cognitive development and school performance
- ✿ IUGR and under nutrition at 1 year of age have recently been said to increase the risk in adult life to:
  - hypertensive heart disease
  - myocardial infarction
  - non-insulin dependent diabetes
- ✿ Malnutrition is not limited to intrauterine life. WHO estimates that:
  - 1 out of every 5 persons in the developing countries do not have enough to meet their basic needs
  - Some 600 million people in developing countries (mostly women and children) are deficient in one or more micronutrients, such as iodine, vitamin A and iron
  - Between 2% and 7% of pregnant women in the developing world are severely anaemic
  - Severe anaemia is also associated with an increased risk of premature onset of labour and low birth weight in the newborn infant

## Reproductive Tract Malignancies

- ✿ According to WHO estimates
  - Breast, cervical, ovarian and endometrial cancers are responsible for the death of more than 700,000 women annually
  - Prostatic cancer is the cause of the deaths of 200,000 men annually
- ✿ Cervical cancer is associated with
  - Reproductive tract infection (certain subtypes of Human Papilloma Virus)
  - Early initiation of sexual intercourse
  - Having multiple sexual partners

## 8. Harmful Sexual Practices

- ⊗ Among these, Female Genital Mutilation (FGM)/Female Genital Cutting (FGC) should be mentioned first
- ⊗ An estimated 85 to 114 million women in the world today have undergone FGM/FGC

### Estimates of Prevalence and Number of FGM

Country	Prevalence (among women of reproductive age)	
	%	million
Chad	60	1.5
Egypt	50	13.6
Ethiopia & Eritrea	90	23.9
Ghana	30	2.3
Kenya	50	6.3
Mali	75	3.1
Nigeria	30	30.6
Seirra Leone	90	1.9
Somalia	98	3.8
Sudan	89	9.2

## Classification of Female Genital Mutilation

Types	Extent
<b>Type 1</b>	Excision of the prepuce with or without excision of part or the entire clitoris
<b>Type 2</b>	Excision of the prepuce and clitoris together with partial or total excision of the labia minora
<b>Type 3</b>	Excision of part or all of the genitalia and stitching/narrowing of the vaginal opening (infibulations)
<b>Type 4</b>	<b>Unclassified</b> <ul style="list-style-type: none"><li>✿ Pricking, piercing or incision of the clitoris and / or labia</li><li>✿ Stretching of the clitoris and/or labia</li><li>✿ Cauterisation by burning of the clitoris and surrounding tissues</li><li>✿ Scrapping (Angurya cuts) of the vaginal orifice or cutting (Gishiri cuts) of the vagina</li><li>✿ Introduction of corrosive substances into the vagina to cause bleeding or herbs into the vagina with the aim of tightening or narrowing the vagina</li><li>✿ Any other procedure that involves the surgical removal of parts or all of the most sensitive female genital organs for cultural or any other non-therapeutic reasons.</li></ul>

## Importance of Reproductive Health

- ✿ RH is very important since it is not only a fundamental human right, but also a social and economic imperative
- ✿ Its importance is also evident from the scope and magnitude of needs reflected by its various dimensions

## Summary

Reproductive health is a holistic approach to responding to human reproductive health needs and specifically promotes and protects the rights of individuals and couples to informed choice. It is based on 12 pillars.

## Evaluation

- ✿ Define Reproductive Health
- ✿ List 5 pillars of Reproductive health
- ✿ What is Reproductive Health Care?
- ✿ What is the importance of reproductive Health?

## MODULE 1 SESSION 3: HISTORY AND BENEFITS OF FAMILY PLANNING

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### Time

2 Hours

### Learners' Objective

By the end of the session, participants will be able to:

- ✿ Discuss the benefits of family planning

### Session Overview

- ✿ Health benefits of family planning
- ✿ Socio – economic benefits of family planning

### Methods

- ✿ Illustrated lecture
- ✿ Brainstorming
- ✿ Discussion
- ✿ Group exercises

### Materials

- ✿ Multimedia projector
- ✿ Writing board and chalk or markers
- ✿ Flipchart and markers



## Content

### Definition

The World Health Organization (WHO) definition of Family Planning states that it is “a way of thinking and living that is adopted voluntarily upon the basis of knowledge, attitudes and responsible decisions by individuals and couples in order to promote health and welfare of the family group and thus contribute effectively to the social development of the country.”

### Benefits of Family Planning

#### A. Health Benefits

1. **Decrease in maternal and infant mortality.** International statistics consistently show a decrease in mortality of mothers and children whenever Family Planning services have been established and used.

##### a) Maternal

Family Planning offers mothers the opportunity to have smaller families which result in better ability to provide adequate nutrition for herself and her family. Family Planning health education gives mothers knowledge of MCH services which may increase utilisation and improve maternal outcome.

##### b) Infant

Adequate spacing prevents depletion of maternal nutritional status, which can decrease the incidence of premature birth.

#### 2. Decrease in complications of pregnancy and delivery

- a) Reduction in high parity will lead to decrease in associated complications like pre-eclampsia, haemorrhage.
- b) Decrease pregnancy-related stress as well as emotional and physical stress
- c) Decrease in adolescent pregnancy will result in decreased complication of pregnancy such as: pre-eclampsia, birth defects and difficult childbirth (the ideal age for childbearing is between 20 – 35 years).

### **3. Prevent or reduce the incidence of genetic disease**

#### **c) Socio – Economic benefits of Family Planning**

1. It gives couples the opportunity to decide when they will plan for another baby. This concept emphasises the basic promise of “freedom of choice”. It requires no decision that is final nor does it terminate the couple’s capacity to reproduce.
2. It decreases unwanted pregnancies
3. It increases educational potential
4. It improves intellectual development
5. It increases financial potential for families
  - a) Improves job opportunities
  - b) Improves women’s economic and social status
6. Where applicable, it improves land inheritance.
7. It Improves quality of life for the people of the community e.g. community will be better able to provide adequate housing, educational and health facilities, transport, employment, and food supply.
8. Overall benefit to the nation is the sum of all the benefits to individual families and communities e.g. helps government provide adequate food, housing, healthcare, education, employment and water supply

#### **Breast Feeding as a Contraceptive Method**

Breast feeding, a very natural and effective process for providing growing infant with high quality, no-cost nutrition, has a distinct advantage of being a valuable means of fertility control.

In the traditional setting, many African women still rely on breast feeding as a method of delaying their next pregnancy. The period of lactation is often accompanied by a period of abstinence. However, with the changing patterns of education and job opportunities for women, abstinence, if done at all, is practised for much shorter periods.

The rural mother is more likely to practice “FULL” breast-feeding or a longer period because her baby feeds on demand.

## Effectiveness of Breastfeeding as a Contraceptive

The likelihood of pregnancy is lower during the first month after delivery whether or not a mother breast feeds her child since she is usually amenorrhoeic during this time.

Note: Studies have shown that after menstruation resumes, the risk of pregnancy is similar whether or not a woman breastfeeds. This suggests that the pregnancy preventing properties of breast feeding are primarily limited to the Amenorrhoeic period.

Contraceptive effectiveness of breast feeding is enhanced by the following

- ⊗ Less use of breast milk supplements
- ⊗ More prolonged breast feeding
- ⊗ More breast feeding on demand (around the clock)
- ⊗ More simultaneous use of abstinence during breast feeding

The most effective contraceptive effects occur during the first 6 months when a woman is not supplementing the breast milk with other types of food. It is the frequency and duration of breast-feeding that most reduce the chance of pregnancy.

## Summary

The concept of family planning practice has been with us for a long time and practice has had tremendous effect in the lives of family members and communities at large.

## Evaluation

- ⊗ Define family planning
- ⊗ State 3 advantages of Family Planning
- ⊗ List 3 examples of traditional methods of Family Planning

## ***MODULE 2***

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## MODULE 2

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### REPRODUCTIVE ANATOMY AND PHYSIOLOGY

The aim of this module is to provide trainees with knowledge of anatomy and physiology of the reproductive system and functions. The reproductive system in relation to female menstrual cycle, the process of conception, spermatogenesis and sperm transport and their implication to family planning will be discussed.

**Session 1:** Anatomy and Physiology of the male and female reproductive systems

**Session 2:** Conception

## MODULE PLAN - OVERVIEW OF ANATOMY AND PHYSIOLOGY OF FEMALE AND MALE REPRODUCTIVE SYSTEMS

SESSION	DURATION	OBJECTIVES	METHODS	MATERIALS
<b>Session 1:</b> <ul style="list-style-type: none"> <li>☼ Anatomy and physiology of female and male reproductive organs</li> </ul>	1 Hour	<ul style="list-style-type: none"> <li>☼ List the organs of male and female reproduction</li> <li>☼ Discuss the functions of female and male reproductive organs</li> <li>☼ Review menstrual cycle</li> </ul>	<ul style="list-style-type: none"> <li>☼ Lecture</li> <li>☼ Discussion</li> <li>☼ Game</li> </ul>	<ul style="list-style-type: none"> <li>☼ Diagrams of male and female reproductive organs (unlabelled)</li> <li>☼ Labels of organs on pieces of paper</li> <li>☼ Flip chart stand/paper</li> <li>☼ Markers</li> <li>☼ Masking tape</li> </ul>
<b>Session 2:</b> <ul style="list-style-type: none"> <li>☼ Conception</li> </ul>	15 Minutes	<ul style="list-style-type: none"> <li>☼ Explain the process of conception</li> </ul>	<ul style="list-style-type: none"> <li>☼ Brainstorming</li> <li>☼ Discussion</li> <li>☼</li> <li>☼</li> </ul>	<ul style="list-style-type: none"> <li>☼ Flip chart and markers</li> <li>☼ Multimedia projector</li> <li>☼ Diagram of conception stages</li> </ul>

## MODULE 2 SESSION 1: OVERVIEW OF ANATOMY AND PHYSIOLOGY OF FEMALE AND MALE REPRODUCTIVE SYSTEMS

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### Time

1 hour

### Learners' Objectives

By the end of the session, participants will be able to:

- ✿ List and label the organs of male and female reproductive system
- ✿ Discuss the functions of female and male reproductive organs
- ✿ Review menstrual cycle

### Session Overview

- ✿ Anatomy and physiology of female and male reproductive organs
- ✿ Menstrual cycle

### Methods

- ✿ Lecture
- ✿ Discussion
- ✿ Game

### Materials

- ✿ Diagrams of male and female reproductive organs (unlabelled)
- ✿ Labels of organs on pieces of paper
- ✿ Flipchart stand/paper
- ✿ Markers
- ✿ Masking tape

## Content

### The Male Reproductive Organ

The male reproductive organ consists of two parts; the external and internal parts

The external male reproductive organs consists of

- ✿ The penis
- ✿ The scrotum

The internal male reproductive organs consists of

- ✿ 2 testicles or testes
- ✿ 2 epididymis
- ✿ 2 vas deferens
- ✿ 1 prostate gland
- ✿ 1 urethra
- ✿ 2 seminal vesicles
- ✿ 2 Cowpers glands

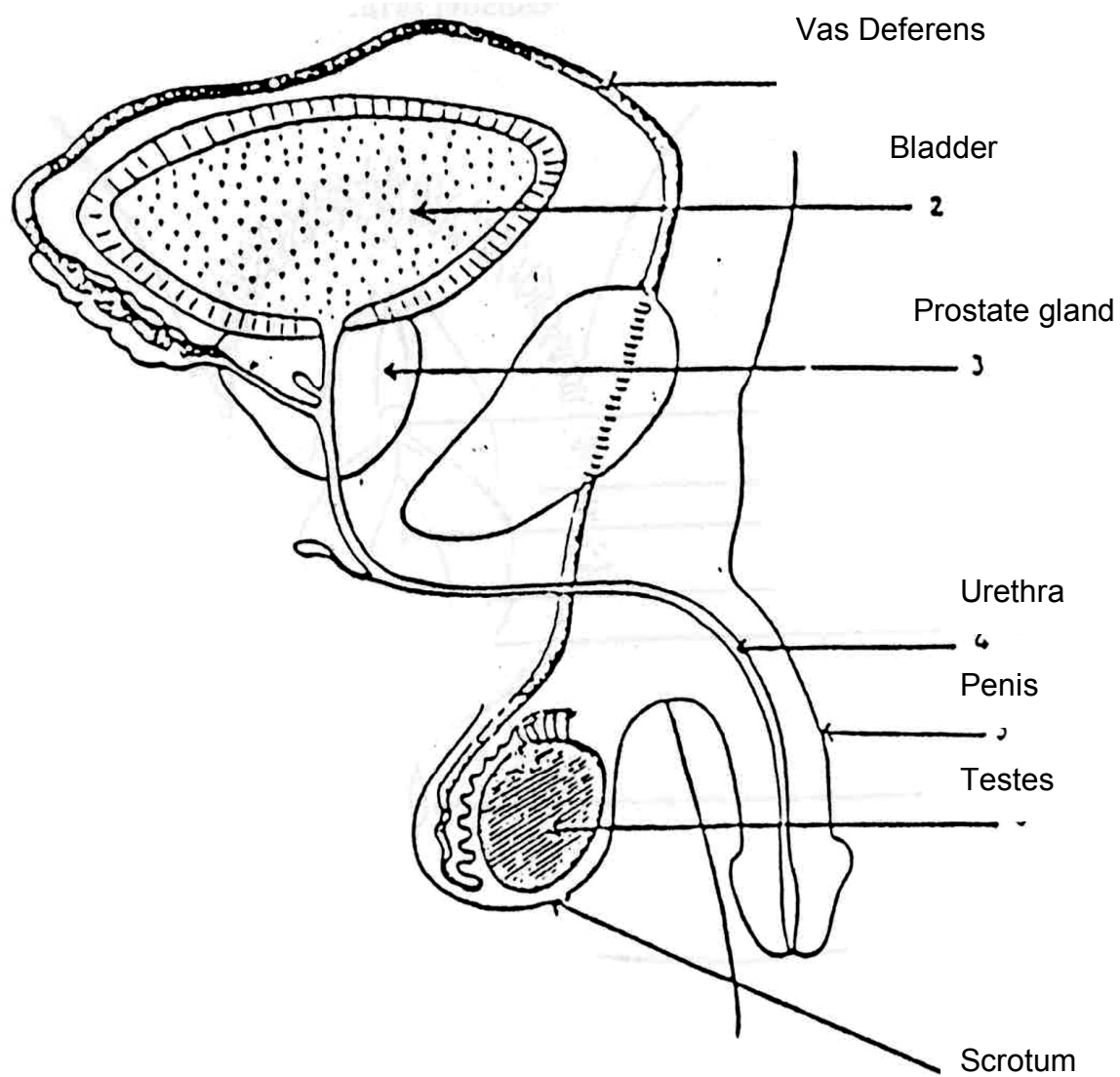
### Brief Description of the Organs

- ✿ **Penis:** The penis is a soft and spongy tissue that lies in front of the scrotum. During erection, the penis gets hard and stiff as the spongy tissue fills with blood. Erections do occur when a male feels sexually excited.
- ✿ **Scrotum:** This is a thin walled soft bag that is covered with wrinkled skin. The scrotum keeps the testicles at just the right temperature for sperm production. In order to maintain the right temperature the scrotum tightens up and pulls the testicles close to the body. At other times the scrotum gets loose and the testicles hang down lower. For most men, one testicles hangs lower than the other
- ✿ **Testicles/Testes:** These are two smooth, firm egg shaped organs. Each is about 2.5 cm long, located in each chamber of the scrotum. They produce the male hormones, which regulate growth, sexual development, reproduction and other crucial life functions and spermatozoa that are responsible for fertilizing the female egg for pregnancy to occur.
- ✿ **Epididymis:** These are two tightly coiled tubes next to the testicles and the vas deferens. They store the sperm being produced by the testicles.
- ✿ **Vas Deferens:** The vas deferens is a narrow tube leading from the epididymis. They store mature sperm and later join together to form the urethra. The vas deferens carries the spermatozoa from the epididymis to the penis.



- ✿ **Prostate Gland:** This is located below the bladder and surrounds the urethra. It is about the size of a large chestnut. It secretes the fluid that helps the sperm to move (semen) during ejaculation.
- ✿ **Urethra:** The urethra is a tube-like structure about 18 cm long. It runs from the neck of the bladder through the prostate and through the length of the penis. It serves as an outlet for urine, semen and sperm.
- ✿ **Seminal Vesicle:** These are two pouches lying behind the bladder. The lower end opens into the urethra. It produces fluid that nourishes, lubricates and makes it possible for the sperm to move.
- ✿ **Cowpers' Gland:** These are two in number, situated just below the prostate gland. The function is to secrete special lubricant fluid for the sperm. They also help to remove traces of urine from the urethra so that the acid in the urine will not kill the sperm.

## Male Reproductive System

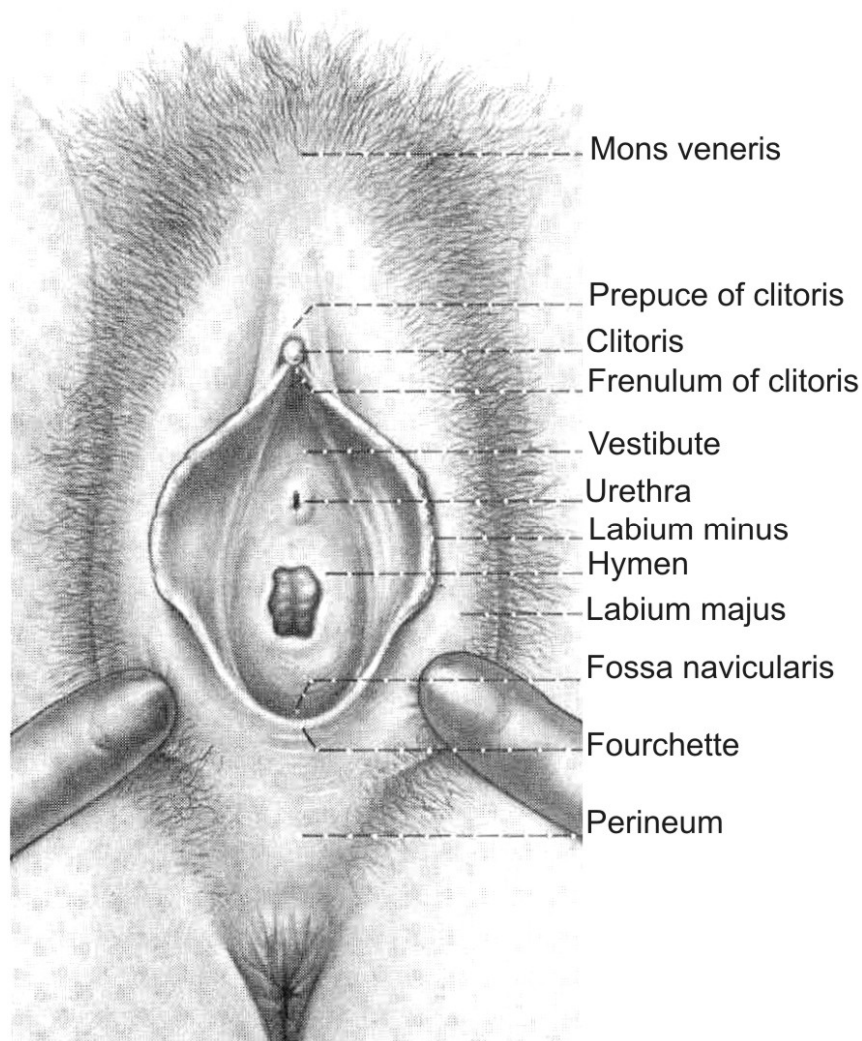


## The Female Reproductive Organs

The female reproductive organ consists of two parts

1 The external female reproductive organs consist of

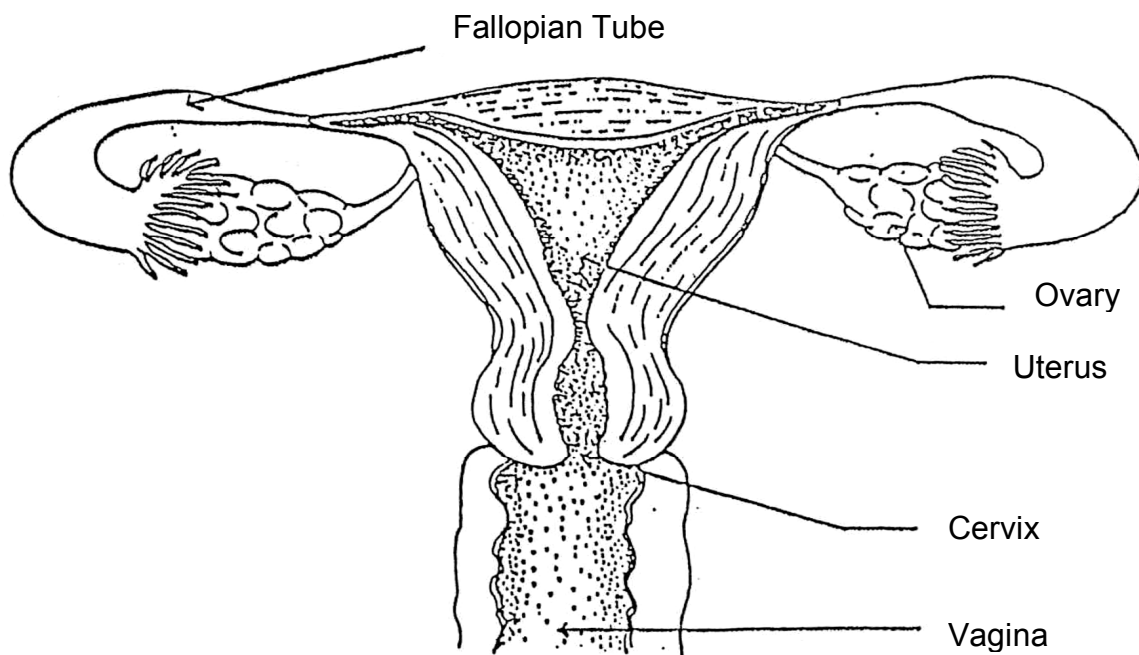
- ✿ Labia majora
- ✿ Labia minora
- ✿ Mons veneris
- ✿ Clitoris
- ✿ Vestibule
- ✿ Vaginal orifice
- ✿ Urethral orifice



## Short Descriptions of the Organs

- ❁ **Labia Majora:** These are two folds of skin that protect the clitoris, urethra and the vagina. This can be referred to as the outer lips. It is composed of fatty tissue and blood vessel.
- ❁ **Labia Minora (inner lips):** These are two folds that are placed under the labia majora. They are thinner than the outer lips, more vascular and more sensitive. The labia minora become more purplish in colour with subsequent pregnancy and childbirth. It loses its fatty tissue with the advent of menopause. The labia minora closely protect the clitoris, urethra and the vagina.
- ❁ **Mons Veneris:** This is the hair bearing skin and the fatty pad which overlies the upper part of the symphysis pubis and the lower abdominal muscles. It acts as a coital buffer.

## Female Reproductive System



- ❁ **Vestibule:** The area of smooth skin lying within the minora and in front of the vaginal orifice and the vagina opens into it
- ❁ **Clitoris:** This is the most sensitive part of the female anatomy. It is a small erectile pea-shaped bump located in front of the urethra. It is the centre of sexual sensation for the female.

- ✿ **Urethral Orifice:** The urethra is located in the vestibule and under the clitoris. The urethra is the passageway for urine to leave the body.
- ✿ **Vaginal Orifice:** The vagina is a hollow muscular organ about 7.5 – 10 cm long and located directly under the urethra. Within the vagina is the hymen, which is a delicate skin tissue that may stretch or tear during first sexual intercourse. The vagina links the uterus to the outside of the body. During puberty, the vagina begins to produce some mucus, which helps to keep the vagina moist and clean.

The internal female organ of reproduction consists of:

- Vagina
  - Cervix
  - Uterus
  - 2 fallopian tubes
  - 2 ovaries
- ✿ **The vagina:** It is a tube like-structure with an external opening above and in front of the anus. The upper end is inside the woman's body and opens into the neck of the womb (cervix). It is 7-9cm deep and from it menstrual blood flows. The male organ (penis) is inserted into the vagina during sexual intercourse.
  - ✿ **The cervix:** It is a short muscular organ that links the vagina to the uterus. It is pinkish in colour, open into the vagina and continues with the uterus. It secretes mucus that changes the environment of the vagina. During childbirth it opens widely to expel the baby into the vagina, from where it is fully delivered.
  - ✿ **The uterus:** It is a hollow muscular organ. It is pear-shaped and is connected to a fallopian tube on each side of the upper part. From the inner lining of the uterus monthly bleeding known as menstruation occurs. The baby develops in the uterus and receives nutrition from the mother via the placenta attached to the uterus.
  - ✿ **The fallopian tubes:** On each side of the upper part of the uterus opens the fallopian tube. It is a soft tubal structure, whose other end opens close to the ovary. When the ovary produces eggs, these eggs pass through the fallopian tubes where they unite with the sperm cells (fertilization) before the fertilized egg enters the uterus for implantation and further development.
  - ✿ **The ovaries:** These are two ovaries in a female, each one near the abdominal opening of the fallopian tube. Each ovary is a cream-coloured, oval-shaped firm structure with an average of 3-5cm in its widest diameter. During puberty they mature and begin to release eggs monthly (ovulation). When an egg is fertilized by sperm, it subsequently develops into a baby in

the uterus. But if not fertilized, the egg dies and will cause the uterus to bleed from its inner lining called menstruation.

## **The Menstrual Cycle**

Menstruation is the monthly loss of blood through the vagina of a female as a result of certain changes that occur in her body. Usually this blood flow lasts for between 3 and 5 days. The usual interval between menstrual flow (i.e. between one menstruation and another) is 21 to 35 days. This is referred to as the menstrual cycle. When the length is outside 21-35 days it is abnormal.

In Nigeria, female adolescents begin to experience menstruation from about the average age of 13 to 14 years. Menstruation that occurs before the age of 8 – 9 years is abnormal. Similarly, if menstruation has not started by 18 years of age, it is abnormal. Some girls experience abdominal pain during menstruation; this is not abnormal and could stop with time. Such abdominal pain could be severe and would require the attention of a health care provider. It is important that young females keep a record of the dates when they observe their menstruation. Menstruation is often irregular during the first few years of its beginning. It may cease for a few months and resume again. This may cause anxiety and the adolescent may seek the counsel of a health care provider.

Some chemicals in the body called hormones regulate the processes that lead to menstruation. The two predominant female hormones are called oestrogen and progesterone. The brain stimulates the ovaries, which then produce cells that grow to become the female eggs, which are later expelled into the Fallopian tubes (referred to as ovulation). At the same time, the progesterone and oestrogen produced by the ovary cause the lining of the uterus to grow. This uterine lining is made of glands and blood vessels.

If fertilization occurs between the egg (ovum) and the male sperm, the fertilized egg will develop inside the uterus i.e. pregnancy results. However, if there was no fertilization, the female egg dies after some days. This leads to withdrawal of progesterone and oestrogen and causes cessation of the growth of the uterine lining. The consequence is the shedding of the dead tissue and the blood vessels of the uterine lining through the vagina referred to as menstruation. This cycle is repeated every time there is no fertilization, thus the menstrual cycle.

## Summary

Explain to the participants that the applied knowledge of anatomy and physiology of the male and female reproductive systems is essential for provision of F/P and reproductive health services.

## Evaluation

- ✿ Mention 4 parts of the male reproductive organs and their functions
- ✿ Mention 4 parts of the female reproductive organs and their functions
- ✿ Describe the changes that occur in the menstrual cycle

## MODULE 2 SESSION 2: CONCEPTION

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### Time

15 Minutes

### Learners' Objectives

By the end of the session, participants will be able to:

- ✿ Explain the process of conception

### Session Overview

- ✿ Stages of conception

### Methods

- ✿ Brainstorming
- ✿ Discussion

### Materials

- ✿ Flip chart plus markers
- ✿ Multimedia projector
- ✿ Diagram of stages of conception



## Content

### Conception

1. The first stage is the development of the female egg. In the 2 weeks before ovulation a number of follicles develop in the ovary. A week before ovulation one of these suddenly accelerates its growth.
2. Ovulation. The matured egg bursts from its follicles and is picked up by the fallopian tube. Muscular contractions propel it along the Fallopian tube. If not fertilized within 24-36 hours the egg will degenerate
3. When intercourse takes place about 20-200 million sperms per ml are ejaculated by the man into the vagina. Of these, only one sperm will fertilize the ovum. The sperm travels fast, possibly covering 2.5cm in 8 minutes: also muscular spasms may aid them.
4. By the time the sperm arrives at the endo-cervix, the seminal fluid has liquefied, and about half the original sperm have died in the acidic conditions of the vagina. The remainder passes through the cervical mucus, which is normally a barrier to sperm, but during ovulation the mucus can be easily penetrated.
5. By the time the sperm reaches the top of the uterus, only about 60% of the original numbers are left.
6. The sperms swim into the fallopian tube and if conditions are favourable sperm may survive here for up to 72 hours.
7. Ovulation occurs 14 days before next menstrual cycle. The egg can stay viable for 24-36 hours and the sperm can survive for 72 hours, this is the basis of determining fertile period.
8. A few hundred sperms complete their journey along the fallopian tube to the ovum. Enzymes released by the sperm heads now break down the ovum's outer wall.
9. One male sperm penetrates the ovum. The cell wall immediately hardens, preventing other sperm from entering, and the nuclei of the two cells fuse together as zygote.

## Summary

Fertilization occurs during ovulation when sexual relationship takes place. The beginning of the fertile period can be determined by subtracting 18 days from the shortest cycle and the end of the fertile period by subtracting 11 days from the longest cycle

## Evaluation

- ✿ Define conception
- ✿ Explain the stages of conception

## ***MODULE 3***

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## MODULE 3

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### CLIENT ASSESSMENT

The aim of this module is to enable participants to conduct detailed clinical assessment of clients so as to rule out contraindications to the use of family planning methods, detect abnormalities and determine appropriate method for clients.

**Session 1:** History taking

**Session 2:** Physical examination

**Session 3:** Laboratory tests

## MODULE PLAN - CLIENT ASSESSMENT

SESSION	DURATION	OBJECTIVES	METHODS	DIAGRAM
<b>Session 1:</b> History taking	1 hour 30 minutes	<ul style="list-style-type: none"> <li>Establish a positive relationship between the clients and the provider</li> <li>Obtain adequate information for the assessment of the physical and psychological status of clients</li> <li>Detect personal and family history that may place a client at high risk of using a particular FP method.</li> <li>Identify medical disorders that need management</li> <li>Verify and update the data collected at the first visit</li> <li>Detect any side effects arising from the clients chosen FP methods</li> <li>Review client medical status from the first visit.</li> </ul>	<ul style="list-style-type: none"> <li>Discussion</li> <li>Demonstration/return demonstration</li> <li>Role play</li> <li>Brainstorming</li> <li>Lecture</li> </ul>	<ul style="list-style-type: none"> <li>Flip chart and markers</li> <li>Multimedia projector</li> <li>Writing board and chalk or markers</li> <li>Client record cards.</li> </ul>
<b>Session 2:</b> Physical examination	90 Minutes	<ul style="list-style-type: none"> <li>Obtain baseline information on clients</li> <li>Identify health indicators which may contraindicate a specific contraceptive method</li> <li>Discover any abnormality that needs treatment</li> <li>Detect gynaecological condition and sexually transmitted infections.</li> <li>Refer for management where necessary.</li> </ul>	<ul style="list-style-type: none"> <li>Illustrated Lecture</li> <li>Demonstration/return demonstration</li> <li>Discussion</li> <li>Brainstorming</li> </ul>	<ul style="list-style-type: none"> <li>Flip chart and markers</li> <li>Multimedia Projector</li> <li>Writing board and chalk or markers</li> <li>Dummy and pelvic model</li> <li>Equipment and instruments</li> </ul>
<b>Session 3:</b> Laboratory tests	1hour	<ul style="list-style-type: none"> <li>Exclude pregnancy</li> <li>Detect any abnormality in the specimen taken and treat appropriately</li> <li>Screen for cervical pathology and STIs</li> <li>Confirm success of vasectomy</li> </ul>	<ul style="list-style-type: none"> <li>Illustrated lecture</li> <li>Demonstration/return demonstration</li> <li>Discussion</li> </ul>	<ul style="list-style-type: none"> <li>Multimedia projector</li> <li>Writing board and chalk or markers</li> <li>Flip chart and markers</li> </ul>

## MODULE 3 SESSION 1: HISTORY TAKING

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### Time

1 hour 30 minutes

### Learners' Objectives

By the end of this session, participants will be able to:

- ✿ Establish a positive relationship between the client and the provider
- ✿ Obtain adequate information for the assessment of the physical and psychological status of the client
- ✿ Detect personal and family history that may place a client at high risk of using a particular FP method
- ✿ Identify medical disorders that need management
- ✿ Verify and update the data collected at the first visit
- ✿ Detect any side effects arising from the clients' chosen FP method
- ✿ Review client's medical status from the first visit.

### Session Overview

- ✿ Definition
- ✿ Type of visit – first or follow-up visit
- ✿ Equipment and materials
- ✿ Procedure
- ✿ History taking

### Methods

- ✿ Discussion
- ✿ Demonstration / return demonstration
- ✿ Role play
- ✿ Brainstorming
- ✿ Illustrated lecture

### Materials

- ✿ Flipchart and markers
- ✿ Multimedia projector
- ✿ Writing board and chalk or markers
- ✿ Client record cards.

## Content

### Definition

Collecting information from the client at the first visit with regards to social, medical, gynaecological, obstetrical, sexual and contraceptive history.

### Type of Visits

- ✿ First visit
- ✿ Follow-up visit

### Equipment and Materials

- ✿ Client's Record Card
- ✿ Pen/pencil

### Procedure

#### Preparation of Materials, Equipment and Setting

- ✿ Make the atmosphere friendly, provide privacy and ensure interview area is out of hearing range of other clients and personnel
- ✿ Get client's record card and writing materials
- ✿ Greet client cordially. Introduce self and offer her a seat to make her feel "at home".
- ✿ Explain why questions being asked are important, particularly those the patients might consider private



Physical Setting for History Taking

## **History Taking**

### **Source of Referral**

When the client does not initiate her own visit, the source of referral becomes important with referral letters, providers need to send back a report in order to have continuity of care and produce a useful, dependable data base on which the management information system in family planning depends.

### **Client's profile: identifying data**

Including name, age, and sex, place of birth, marital status, occupation and perhaps religion should be carefully investigated and documented.

### **Social habit history**

Tobacco, alcohol, drugs: type and amount taken and for how long should be investigated in a non-judgmental manner in order to help the clients discuss freely their habit with the provider. Some drugs, tobacco and narcotics affect the use of hormonal contraceptive and health.

### **Medical history (past and present)**

Collect and record the following data from the client:

- ⊗ Details of any disease(s), medical/surgical condition, or allergies
- ⊗ Medication being taken now
- ⊗ Diabetes mellitus



- ✿ Hypertension
- ✿ Active tuberculosis
- ✿ Surgical operations, which left a scar in the uterus
- ✿ Significant weight loss (ask if it bothers the client)
- ✿ Sexually transmitted infections
- ✿ Recurrent headache
- ✿ Thrombosis – (blood clot)
- ✿ Pain in the calf
- ✿ Liver disease or jaundice
- ✿ Epilepsy
- ✿ Mental illness
- ✿ Allergies to drugs

## **Gynaecological/Obstetrical History**

### **Menstrual History**

Ask questions on the following and record the responses

- ✿ Age at menarche
- ✿ Date of last menstrual period
- ✿ Amount of flow – heavy, moderate, light
- ✿ Duration of menstrual flow
- ✿ Interval between two periods
- ✿ Any pain during menstrual period

### **Sexual History**

Ask the following questions and record the responses

- ✿ Age at first intercourse
- ✿ How often do you have sexual intercourse?
- ✿ How many sexual partners do you have?
- ✿ Do you have painful intercourse?
- ✿ If yes, is it superficial or deep?
- ✿ Do you have post coital bleeding?
- ✿ Do you have any vaginal discharge that itches?

### **Obstetric History**

Ask questions on the following and record the responses

- ✿ Number of times pregnant; duration of each pregnancy
- ✿ Pregnancy outcome – live births, still births, abortions
- ✿ Complication of pregnancy or delivery

## **Contraceptive History**

Enquire from the client the following and record

- ⊗ Type of method
- ⊗ Satisfaction with method(s)
- ⊗ Duration of usage
- ⊗ Side effects experienced – (specify)
- ⊗ Reasons for discontinuing or changing method

## **Follow up Visit**

### **Procedure**

Preparation of physical setting, equipment and materials

- ⊗ Pen/pencil
- ⊗ Client record card

### **Client preparation – Same as the first visit**

### **Steps**

- ⊗ Re-check the name and address of client.

## **Medical history**

Ask and record the following

- ⊗ Any medical problems since client's last visit?
- ⊗ If yes, what was the problem; has the client had treatment, what treatment, where and by whom?

## **Gynaecological and contraceptive history**

Ask and record the following:

- ⊗ First day and duration of the client's last menstrual period
- ⊗ Painful or heavy menstruation since last visit
- ⊗ Regularity of periods

## Role Play

Trainer divides participants into groups. Members of each group will practice history taking skills, each taking the role of client and provider in turns using the role play guideline assigned. Observer will note the following:

- ⊗ What history taking skills were used
- ⊗ Provider's method of asking related questions
- ⊗ Appropriate ways of filling client's record card
- ⊗ Ways of making client comfortable within clinic area

## Summary

History taking provides a broad based information about the client that will assist her/him in knowing more about self and the method most appropriate.

It assists the provider to obtain relevant information for effective service provision.

## Evaluation

- ⊗ State the type of history to be collected from a client seeking family planning services.
- ⊗ Identify disorders that will influence client's choice of method

## MODULE 3 SESSION 2: PHYSICAL EXAMINATION

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### Time

90 Minutes

### Learners' Objectives

By the end of the session, participants will be able to:

- ✿ Obtain baseline information on clients
- ✿ Identify health conditions which may contraindicate a specific contraceptive method
- ✿ Detect any abnormality that needs treatment
- ✿ Detect gynaecological condition and sexually transmitted infection
- ✿ Refer for management where necessary

### Session Overview

- ✿ Definition
- ✿ Equipment and materials
- ✿ Client preparation
- ✿ Steps for performing physical examination

### Methods

- ✿ Illustrated lecture
- ✿ Demonstration / return demonstration
- ✿ Discussion
- ✿ Brainstorming

### Materials

- ✿ Flip chart and markers
- ✿ Multimedia projector
- ✿ Writing board and chalk or markers
- ✿ Dummy and pelvic model
- ✿ Equipment and instruments

## Content

### General Physical Examination

#### Definition

Physical examination is the process of assessing the client's health status.

#### Equipment and materials

- ✿ Blood pressure apparatus
- ✿ Stethoscope
- ✿ Weighing scale
- ✿ Torch/angle-poised lamp
- ✿ Laboratory/Pathology/MIS forms
- ✿ Pedal Bin for soiled dressings
- ✿ Trolley
- ✿ Bowl for lotion/water
- ✿ Bowl for cotton wool/gauze
- ✿ Sims/Cusco's Speculum (bi-valve)
- ✿ Gallipot for lubricant
- ✿ Sponge holding forceps
- ✿ Kidney dish
- ✿ Examination couch
- ✿ Glass slide
- ✿ Wooden spatula for cervical smear
- ✿ 95% alcohol
- ✿ Acetic acid

#### Preparation of client

- ✿ Ensure the client's comfort and privacy
- ✿ Explain every procedure to the client
- ✿ Ask client to empty bladder
- ✿ Wash hands with soap and water before and after examining the woman (or having any direct contact)

## Steps in Performing Physical Examination

### General Examination

This includes inspection and palpation

Observe the following as the client walks into the examination room

- ⊗ Gait (walking) – shuffling, limping with or without pain
- ⊗ Facial expressions
- ⊗ Pronounced disability or obvious ill-health

### Check temperature, pulse, respiration rate, BP, weight and record

- ⊗ Check blood pressure at every visit and record findings
- ⊗ If there are any abnormalities such as hypertension or hypotension refer for management.

### Check the B/P

#### Equipment

- ⊗ Sphygmomanometer
  - Aneroid type
  - Mercury type
- ⊗ Stethoscope

#### Steps

- ⊗ Tell the client what you are about to do
- ⊗ Get the client comfortably seated with arm supported and relaxed, with palm surface of arm uppermost
- ⊗ Position yourself so that the column of mercury can be read at eye level and not more than 1 meter away
- ⊗ Place the cuff so that the inflatable bag is centred over the brachial artery and lower edge of the cuff is 2cm above the elbow joint
- ⊗ Wrap the cuff smoothly around the arm and tuck end of cuff securely under preceding wrapping
- ⊗ Use the finger to feel for strong pulsation of the brachial artery at the elbow joint
- ⊗ Place the stethoscope over the brachial pulse. Listen to the pulsation
- ⊗ Pump the bulb of the manometer until the mercury rises to appropriately 20 - 30 mm above the point at which the brachial pulse is no longer heard
- ⊗ Using the valve on the bulb, release air slowly. Note on the manometer the point at which the *first* sound is heard. This figure is the systolic pressure
- ⊗ Continue to release the air in the cuff evenly and gradually

- ⊗ The last figure on the manometer at which the quality of the sound changes to a less distinct sound is the diastolic pressure
- ⊗ Allow the remaining air to escape quickly. Remove the cuff
- ⊗ Record immediately

## Check the weight

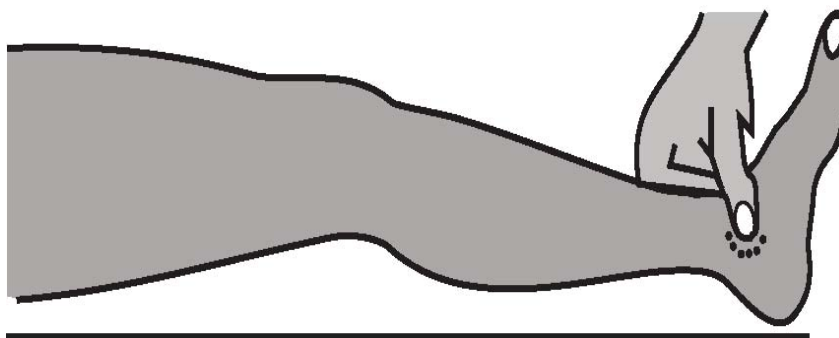
### Equipment

- ⊗ There are two types of weighing machines:
  - Bathroom scale
  - Standing scale

### Steps

- ⊗ Balance scale at zero
- ⊗ Ask client to remove her shoes, head-tie, and other heavy materials
- ⊗ Ask client to stand on the scale without holding on to anything
- ⊗ Balance the scale weight or read the scale if it is the bathroom type
- ⊗ Record the client's weight immediately
- ⊗ Compare weight with the weight at last visit

Note: If there is any abnormality detected, put a circle or an asterisk in front of the client's card



Examination for pallor, jaundice, and pedal oedema

## Systemic Examination

Place client in the position most appropriate for examination and check:

### Head and Neck

- ☼ Tinea capitis (ring worm)

### Face

- ☼ Pimples
- ☼ Acne
- ☼ chloasma

### Eyes

- ☼ jaundice and anaemia

### Mouth

- ☼ colour of tongue and mucus membrane
- ☼ ulcers and fissures

### Neck

- ☼ lumps, including thyroid enlargement and engorged vein

## Breast Examination

There are two steps for breast examination – sitting and lying.

**Standing:** Preferably before a mirror with client standing up and with breasts exposed

### Inspect

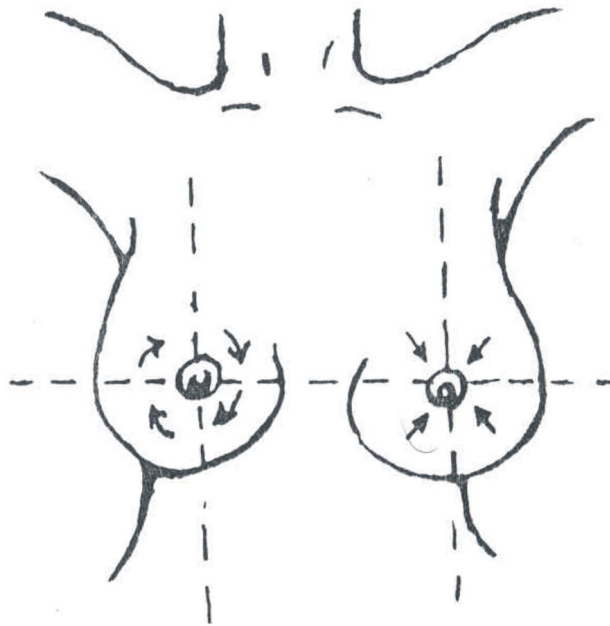
- ☼ The breast for size, shape, symmetry, scars, thickening of the skin, visible lumps, “peau d’ orange” (skin looking like orange peel with little dimples)
- ☼ Engorgement; redness, colour of nipples, the size and shape, the direction of the nipples, ulceration
- ☼ Dimpling and drawing in of the nipples by asking client to
- ☼ Lift both arms over the head and check if both breasts rise equally
- ☼ Lean forward letting the breasts hang loosely from the chest

**Lying down:** Flat on the back with head on one pillow

- ☼ Assist client to lie on her back
- ☼ Position client’s left arm over her head and make imaginary line, dividing the breast into four quadrants and go through the steps
- ☼ Repeat with the other breast



- ⊗ If lump is present, ask client if she is aware of it
- ⊗ Ask her if the lump is increasing in size, and whether it hurts
- ⊗ Instruct client on self examination of breast, have her perform the examination while you observe and correct
- ⊗ Encourage the client to examine the breasts every month 2-3 days after her menstrual period, and report to the provider if there are changes



Breast Examination

### Abdominal Examination

This is used to identify deeper lying tenderness and enlargement of organs to obtain information on the size, consistency, tenderness and mobility of a mass and the position of organs such as liver and spleen

#### Steps

Position client on her back with arms at sides and knees straight, cover the client properly and expose only the area for examination.

#### Inspect for

- ⊗ Scar of previous operation or traditional marks
- ⊗ Distension

#### Palpate for

- ☼ Lumps and hernia

### **Light Palpation**

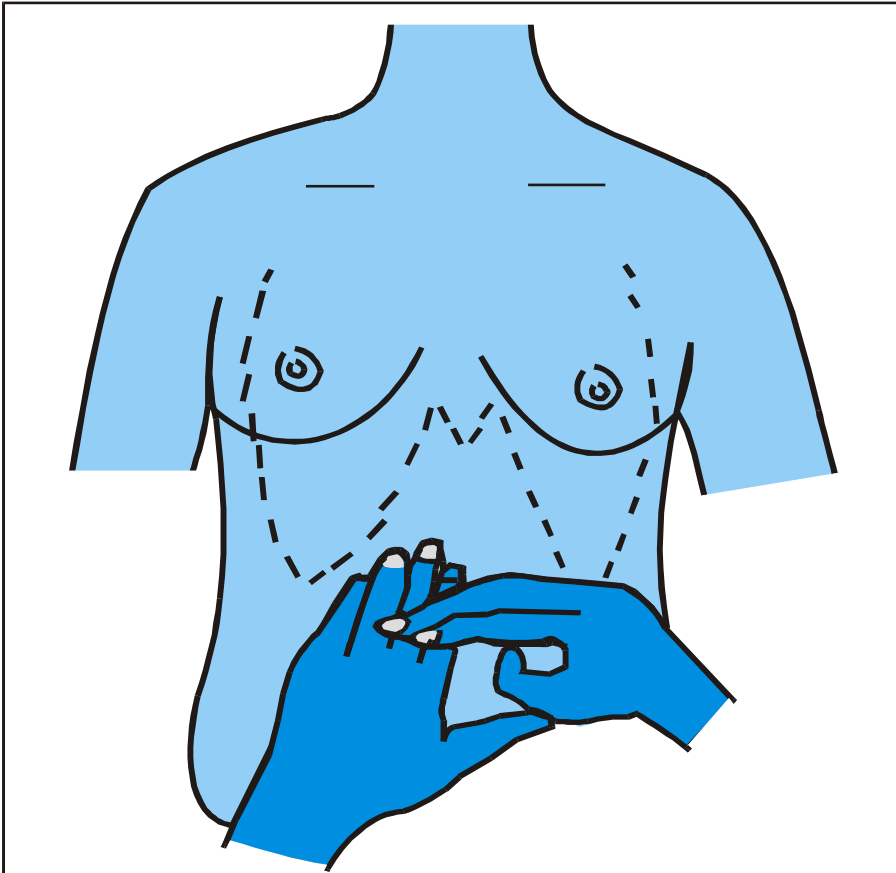
- ☼ Using palmar surface of fingers, palpate lightly the entire abdominal wall
- ☼ Observe the client's facial expression, which may indicate pain

### **Deep Palpation**

- ☼ With one hand behind the right lower chest region, place the other hand on the right lower abdomen with fingers pointed upward
- ☼ With each deep breath, move the hand on the abdomen towards the edge of the rib to feel the edge of the liver
- ☼ Repeat for the left side to feel the spleen
- ☼ Leaving the palmar surface of the fingers on the abdomen, deeply palpate the rest of the abdomen, including the inguinal area feeling for masses.

## Percussion

If any enlargement is detected this should be percussed for resonance or dullness.



Percussion of the Abdomen

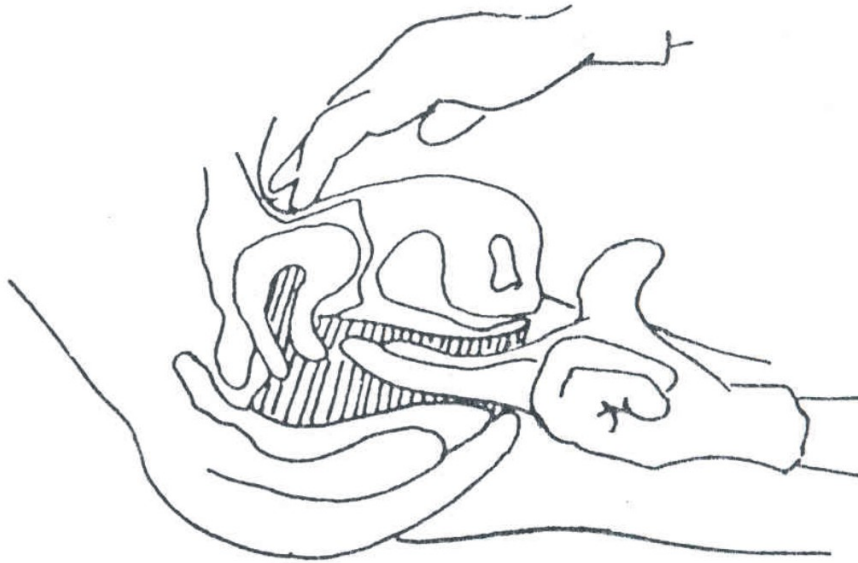
## Pelvic Examination

### Client Preparation

- ✿ Inform client that you are going to examine her internal part and ask for
- ✿ co-operation
- ✿ Place client on her back with knees bent
- ✿ Position sources of light (angle poised lamp or torch)
- ✿ Wash hands with soap and water then dry
- ✿ Wear sterile gloves
- ✿ Place kidney dish containing Cusco's or Sim's speculum, sponge holding
- ✿ forceps, lubricant, spatula and swab on a trolley

## Bi-manual Examination

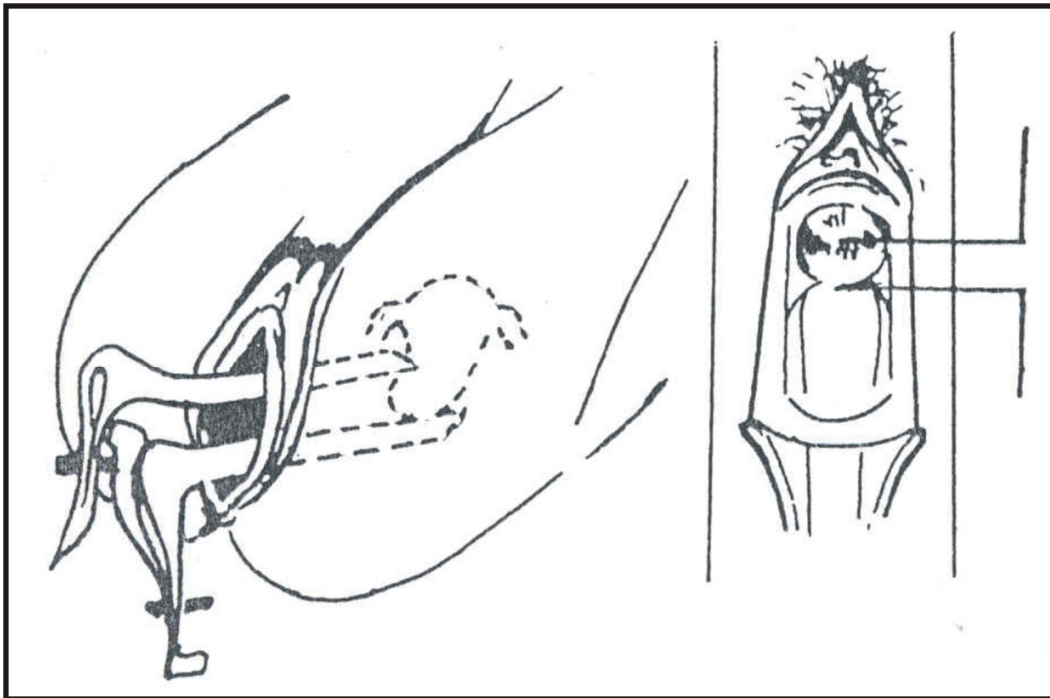
- ⊗ Inspect external genitalia and note
  - Distribution of pubic hair
  - Presence of scars, lice, varicose vein, excoriation, bleeding, vaginal discharge, abrasions, rashes, warts and swelling
- ⊗ Separate labia majora from labia minora and note evidence of circumcision
- ⊗ Observe urethral opening for discharges and signs of inflammation
- ⊗ Instruct client to cough and observe closely urine leakage and bulging of vaginal wall indicating urethrocele, cystocele and or rectocele
- ⊗ Insert two fingers of the examining hand well inside the vagina and feel the vaginal walls
- ⊗ Using upward pressure, instruct client to cough and observe for bulge in the posterior vaginal wall which might indicate rectocele
- ⊗ With the palm up, using the fingers in the vagina, follow the anterior vaginal wall until you reach the end of it and locate the cervix.
- ⊗ Feel the cervix with the vaginal fingers, noting the position, consistency and whether open or closed. Feel the shape of the external os, recognise any old lacerations and presence of cyst or polyp seen on speculum examination
- ⊗ Steady pelvic organs by placing the abdominal hand gently on the lower abdomen above the symphysis and exert steady downward pressure.
- ⊗ With the fingers in front of the cervix, gently lift the fingers inside vagina toward the abdominal hand to discover if the uterus can be felt in between the two hands, indicating anterior position of uterus.
- ⊗ If the uterus is not palpable in front, then place the vaginal fingers behind the cervix and gently lift the cervix and uterus, towards the abdominal hand
- ⊗ The mid position situation of the uterus may be determined by this movement.
- ⊗ If the uterus is not felt between the two hands, it may be behind the cervix at the end of the posterior wall of the vagina
- ⊗ Feel the uterus with the tip of your vaginal fingers pointing downwards and backwards. The posterior position of the uterus may be determined by this movement.
- ⊗ Immediately after the position of the uterus is identified, divide the vaginal fingers into a v-shape and with these fingers on either side of the cervix, outline the uterus, noting the size, shape, consistency and mobility of the uterus
- ⊗ Move the vaginal fingers into the lateral fornix (the side of the cervix) and simultaneously move the abdominal hand to the same side. While the abdominal hand presses towards the vaginal fingers identify the presence of swelling, tenderness and thickening
- ⊗ Repeat the other side of cervix
- ⊗ Gently remove your fingers from the vagina.



Bi-manual Examination for Anterior Position of the Uterus

### Speculum Examination

- ⊗ Inform the client that a speculum will be inserted
- ⊗ Lubricate Cusco's or Grave's speculum (use water if specimen for cytology or culture is to be taken)
- ⊗ Insert lubricated speculum into the vagina
- ⊗ Hold the speculum closed in the right hand and open the labia using the index and middle fingers of the left hand
- ⊗ Obliquely insert the blades of the speculum into the vaginal canal. Avoid pressure on the urethra and the clitoris. Do not catch the skin and the hair between the blades and hinges of the speculum
- ⊗ Halfway into the vaginal canal, turn the blades in the horizontal plane and slowly introduce the speculum further towards the cervix
- ⊗ Put a little downward pressure on the floor of the vagina and gently open the blades of the speculum and visualise the cervix
- ⊗ Inspect the following
  - cervix for contour, laceration, polyp, erosion, cysts, discharge or bleeding
  - vaginal mucosa for colour, ulceration (consistency and colour)
  - If there is a need for cervical acetic test, paint the cervix with acetic acid and observe any change in colour
  - IUD strings for visibility and length



Speculum Examination

**Obtain laboratory specimen** (if required)

**Pap smear**

- ⊗ Label the cytology slide (name and identification Number)
- ⊗ Insert the pointed end of the spatula into the cervical canal and gently rotate, scraping with the wooden spatula for a full 360-degree
- ⊗ Lightly and evenly spread the material on the labelled slides
- ⊗ Fix the material immediately in a fixative (95% alcohol) before it dries up
- ⊗ Avoid taking smear during menstrual flow. However if the client consults during an abnormal bleeding episode obtain smear as this could aid diagnosis.

## Culture for Gonorrhoea

- ✿ Use a sterile swab stick to take culture material from the endocervical canal. Insert sterile swab stick into cervical os and gently rotate to obtain specimen and place swab stick into the container
- ✿ Remove the speculum by loosening the screw, and using slight downward traction
- ✿ Send the specimen to the laboratory immediately as gonococcal organisms are sensitive to dryness
- ✿ Where laboratory is far away from the health centre, place the specimen in a transport medium and transport to the laboratory.

## Summary

Physical examination is carried out in clients to discover abnormalities and contraindications for specific FP methods.

## Evaluation

- ✿ Describe how to provide privacy to client
- ✿ Mention the equipment / material needed for physical examination
- ✿ State the steps in conducting physical examination.

## MODULE 3 SESSION 3: LABORATORY TESTS

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### Time

1 Hour

### Learners' Objectives

By the end of the session, the participants will be able to:

- ✿ Exclude pregnancy
- ✿ Detect any abnormality in the specimen taken and treat appropriately
- ✿ Screen for cervical pathology and STIs
- ✿ Confirm success of vasectomy

### Session Overview

- ✿ Description of Laboratory tests in F/P
- ✿ Types of Laboratory tests done in FP
- ✿ Equipment and materials for Laboratory tests
- ✿ Procedures for Laboratory tests

### Methods

- ✿ Brainstorming
- ✿ Illustrated lecture
- ✿ Demonstration / return demonstration
- ✿ Discussion

### Materials

- ✿ Multimedia projector
- ✿ Writing board and chalk or markers
- ✿ Equipment and materials



## Content

### Description

Basic laboratory tests are those commonly performed in Family Planning clinics.

### Types of Laboratory tests

- ✿ Urinalysis (hot and cold) - albumin, sugar and acetone
- ✿ Blood for Hb, PCV, malaria parasites and sickling
- ✿ Pregnancy test
- ✿ Other tests, such as Pap smear, (culture and sensitivity), VDRL, HIV Screening, Urine microscopy, culture and sensitivity

### Equipment and Materials

#### General

- ✿ Methylated spirit lamp
- ✿ Blue/red Litmus paper
- ✿ Urinometer
- ✿ 20% salicylsulphonic acid
- ✿ Acetic acid
- ✿ Clinitest tablets
- ✿ Acetest reagent tablets
- ✿ Sterile swab stick
- ✿ Sterile urine container
- ✿ Transport medium
- ✿ Test tubes
- ✿ Test tube holder
- ✿ Test tube rack
- ✿ Waste Bin
- ✿ Blood sample bottles
- ✿ HIV rapid screening test kits
- ✿ HBV rapid test kits

#### Specific

##### Urinalysis

- ✿ Urine
- ✿ Urine dip sticks (multisticks/combi – 9 or other test sticks)

##### Blood test

- ✿ Taliquist paper
- ✿ Cotton wool swab
- ✿ Needle or lancet

- ✿ Tourniquet
- ✿ Plaster

### **Pregnancy Test**

- ✿ Pregnancy Test Kits

### **Pap smear**

- ✿ Speculum
- ✿ Sterile swab stick
- ✿ Glass slides
- ✿ Wooden spatula
- ✿ 95% alcohol
- ✿ Acetic acid 3-5%
- ✿ Clean gloves

## **Procedures**

### **Urinalysis** (Detailed examination of urine)

Note: Use fresh specimen of urine for all tests except for pregnancy test where early morning urine is required. If client has fever allow urine to cool to room temperature before the reading is done.

### **Client Preparation**

Instruct client to collect mid-stream sample of urine by passing initial urine out before collecting some into the specimen bottle.

## **Steps**

Observe the following

### ✿ **Colour**

- Normal colour is amber
- Abnormal colours
- Wine or red indicates blood
- Orange - Brown indicates bile pigments
- Various colours – as a result of drugs and other substances which have been ingested

### ✿ **Turbidity**

- Normal urine should be clear
- Haziness indicates presence of protein, mucus or pus-suspected urinary tract infection

### ✿ **Odour**

- Normal- It is atypical

- Sweet smell indicates presence of acetone
- Fishy odour indicates infection

### **Specific Gravity**

- ✿ Normal range = 1.010- 1.025
- ✿ Place the urinometer into a cylinder containing urine.
- ✿ Allow the urinometer to float freely in the urine without touching the sides or bottom of the cylinder. If there is insufficient urine to allow the urinometer to float freely, then add an equal quantity of water and double the last two figures of the reading obtained
- ✿ Perform this after all other tests have been completed
- ✿ Read the number on urinometer at the lower level of the meniscus of urine
- ✿ pH: Normal urine (pH) is acidic
- ✿ Dip litmus paper in the urine
- ✿ Observe colour change
- ✿ Blue litmus changes to red indicate acid reaction
- ✿ Red litmus changes to blue indicates alkaline reaction
- ✿ Purplish colour to both indicates neutral reaction
- ✿ (other indicator test papers show various pH ranges)

### **Albumin**

- ✿ Dip test end of albutix in urine
- ✿ Remove immediately
- ✿ Compare colour of dipped end with colour scale on the container. (This depends on the manufacturer's instruction)

Note: If no test strips are available, use one of these alternatives

### **Salicyl Sulphonic Acid Test**

- ✿ Fill  $\frac{3}{4}$  of the test tube with urine
- ✿ Add 10-20 drops of 20% Salicyl Sulphonic Acid.
- ✿ If the solution is cloudy, albumin is present. The degree of cloudiness varies with the amount of albumin present

### **Hot Test for albumin**

- ✿ Fill test tube  $\frac{3}{4}$  full with urine
- ✿ Hold the tube at the bottom
- ✿ Heat the top level part of the urine over a Methylated Spirit lamp, and shake continuously
- ✿ Add a few drops of acetic acid when boiling
- ✿ Remove from the flame and read the results
- ✿ Cloudiness indicates the presence of albumin

## **Sugar**

- ✿ Use either of the following tests
- ✿ Clinistix – (Ames Test)
- ✿ Dip the test end into the urine and withdraw
- ✿ Observe colour change and compare colour with the scale on the container for the presence of glucose
- ✿ Clinitest Tablets Test
- ✿ Place 5 drops of urine in test tube
- ✿ Add 10 drops of water
- ✿ Add one Clinitest tablet
- ✿ Do not shake the mixture while it is bubbling
- ✿ Wait for 15 seconds after bubbling stops
- ✿ Shake and compare with the colour chart

Note: Use the same dropper for urine and water

### **Management (If Abnormal)**

- ✿ If albumin is present check for presence of vaginal discharge and treat if necessary and repeat with mid stream specimen
- ✿ If albumin or sugar persists in the urine, refer to physician

## **Urine Culture and Sensitivity**

### **Indications**

- ✿ In the presence of urinary tract infection or cystitis
- ✿ To evaluate the treatment of urinary tract infection or cystitis

### **Procedure for Collection**

- ✿ Instruct client to clean her genitalia
- ✿ Give client a clean container to collect the middle portion of the stream of urine.
- ✿ Label specimen
- ✿ Send to laboratory with a filled requisition form

### **Management (If Abnormal)**

- ✿ Initiate appropriate drug therapy for identified organisms
- ✿ Repeat urine culture and therapy to evaluate effectiveness.

## **PCV, Haemoglobin**

- ✿ Packed Cell Volume (PCV) or Haemoglobin % (Hb%) is not done as a routine in FP but may be done if a client is anaemic or bleeding.

### Indications

- ✿ Assessment of anaemia
- ✿ Assessment of haematologic condition after blood loss, during therapy or in nutritional deficiency
- ✿ Identification of baseline preoperative haematologic values

### Procedure for Collection

- ✿ Send client with a requisition form to the laboratory for collection if available OR
- ✿ Do Talquist method
  - Ensure client is positioned comfortably
  - Explain the procedure to the client
  - Wear gloves
  - With your thumb and index finger hold firm the client's thumb
  - Clean the tip of the finger with cotton wool swab dipped in methylated spirit and discard swab after use
  - Prick the finger tip with needle sharply once
  - Squeeze out the blood
  - Blot the squeezed out blood on a piece of talquist paper
  - Compare the colour with the one on the talquist scale.
- ✿ Record the result
- ✿ If PCV is 30% or below refer for further investigation
- ✿ If PCV is 31% – 35% or HB is 70%, advise on diet and treat with haematinics
- ✿ Rule out the presence of malaria and treat if necessary

### Pregnancy Test

#### Indications

- ✿ To confirm or rule out pregnancy after history and physical examination
- ✿ To differentiate intrauterine pregnancy from hydatiform mole

#### Procedure for Collection

- ✿ Give client a clean container
- ✿ Instruct to pass the first morning specimen (E.M.U.) into a clean container
- ✿ Label the specimen
- ✿ Send to laboratory with filled requisition form.

#### Management (If Abnormal)

- ✿ If positive discontinue or do not prescribe hormonal or IUCD contraceptive and refer to prenatal clinic
- ✿ If positive and IUCD in situ refer to obstetrician
- ✿ If negative at least 2 weeks after last coitus, hormonal or IUCD may be prescribed.

## Pap smear

### Indications

- ✿ To detect pre-cancerous changes of the cervix

Note: For all new clients

This should be carried out once a year on all clients. Whenever the cervix does not appear normal (e.g.) in the presence of inflammation, areas of erosion etc)

### Procedure for Collection

- ✿ Use a wooden spatula to scrape the cervix gently at the squamo-columnar junction
- ✿ Spread the specimen on a slide
- ✿ Label and send to the Cytology department

*More Information in Module on Integrated Services in RH*

### Management (If Abnormal)

- ✿ If result shows inflammation with infection – treat appropriately and repeat test 4 weeks after treatment
- ✿ If result shows any of these 5: **Refer to the physician immediately**
  - CIN I - Mild dysakaryosis (dysplasia) (abnormal) appearance of cell nucleus
  - CIN II – Moderate dysakaryosis
  - CIN III – Severe dysakaryosis
  - Micro-invasive carcinoma in situ
  - Invasive carcinoma

## High Vaginal Swabs (HVS)

### Indications

- ✿ Any client who presents with symptoms of abnormal vaginal discharge
- ✿ Client presenting with lower abdominal pain/ tenderness or fever thought to be due to bacterial infection
- ✿ Recurrent Pelvic Inflammatory Disease

### **Procedure for Collection**

- ✿ Explain the procedure clearly to the client
- ✿ Collect all equipment required
- ✿ Put client in position and insert Cusco's vaginal speculum
- ✿ Collect the discharge specimens with wool swabs from the endocervical canal/vaginal vault and place in appropriate tubes.
- ✿ Remove speculum from vagina and clean up client
- ✿ Label specimen and send to the laboratory immediately.

### **Management (If Abnormal)**

- ✿ Initiate appropriate therapy for identified organisms
- ✿ Repeat HVS and ECS after completion of therapy to evaluate effectiveness

## **Semen Analysis**

### **Indications**

- ✿ As part of investigations for infertility, sub fertility or post vasectomy

### **Procedure for Collection**

- ✿ Refer client to the laboratory for instructions on how to collect the semen specimen

### **Management (If Abnormal)**

- ✿ In the absence of sperm or decreased sperm count, client should be reassured and referred to the physician
- ✿ If sperm count is normal, seek other causes of infertility
- ✿ If sperm count is absent in 3 consecutive analysis, vasectomy is considered successful and back-up contraceptive method may be discontinued

## **V.D.R.L (Venereal Disease Research Laboratory)**

### **Indications**

- ✿ Clients with history of exposure to syphilis or genital ulcer
- ✿ Presence of genital ulcer on pelvic examination
- ✿ Presence of other STIs

### **Management (If Abnormal)**

- ✿ Positive VDRL result requires other tests like Trepanoma immobilization test (if available) to confirm diagnosis of syphilis. Alternatively, use Rapid Plasma Reagin Test (RPR) which is virtually diagnostic.
- ✿ Use the syndromic management chart

## **Rapid Screen Test for HIV**

- ⊗ Counsel client based on Voluntary Counselling and Confidential Testing (VCCT)
- ⊗ If client accepts, take appropriate sample (blood) for rapid screening test for HIV. (Follow manufacturer's instruction for the kit available in your facility)
- ⊗ Refer client for appropriate post-test counselling

## **Summary**

Basic laboratory tests are carried out to exclude pregnancy, detect abnormalities and treat appropriately.

## **Evaluation**

- ⊗ Mention some common abnormalities found in laboratory tests
- ⊗ List some indications for laboratory examination
- ⊗ Describe procedure for collection of various specimens.



## ***MODULE 4***

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## MODULE 4

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### INTERPERSONAL COMMUNICATION AND COUNSELLING

Communication between the provider and the client is believed to improve the understanding of the concept of FP and the benefit it offers. This module aims to assist clinical service providers to develop effective communication skills in Family Planning (FP) so as to improve the provider's efficiency while making client more receptive to the services offered.

**Session 1:** Communication Process in Family Planning

**Session 2:** Use of I.E.C. Materials in Family Planning

**Session 3:** Counselling Techniques

## MODULE PLAN - INTERPERSONAL COMMUNICATION AND COUNSELLING

TITLE	DURATION	OBJECTIVES	METHODS	MATERIALS
<b>Session 1:</b> Communication Process in Family Planning	1 hour	<ul style="list-style-type: none"> <li>☼ Define communication</li> <li>☼ State the components of an effective communication process</li> <li>☼ Discuss the qualities of each component of an effective communication process</li> <li>☼ Discuss the IPC skills needed for effective communication</li> <li>☼ Discuss barriers to effective communication and ways of overcoming such barriers.</li> </ul>	<ul style="list-style-type: none"> <li>☼ Brainstorming</li> <li>☼ Illustrated lecture</li> <li>☼ Discussion</li> <li>☼ Game</li> </ul>	<ul style="list-style-type: none"> <li>☼ Flip chart and markers</li> <li>☼ Writing board and chalk/markers</li> </ul>
<b>Session 2:</b> Use of IEC Materials in F/P	2 Hours	<ul style="list-style-type: none"> <li>☼ Explain the term IEC support material</li> <li>☼ Enumerate types of IEC support material</li> <li>☼ State the importance of using IEC support materials to communicate effectively.</li> <li>☼ List factors that ensure acceptability and effectiveness of IEC support materials</li> <li>☼ Demonstrate the ability to use at least one IEC support material.</li> </ul>	<ul style="list-style-type: none"> <li>☼ Brain-storming</li> <li>☼ Lecture</li> <li>☼ Discussion</li> <li>☼ Demonstration</li> <li>☼ Group exercise</li> <li>☼ Role play.</li> </ul>	<ul style="list-style-type: none"> <li>☼ Flip chart and markers</li> <li>☼ Writing board and chalk/markers</li> <li>☼ Multimedia projector</li> <li>☼ Statements on sexual attitudes.</li> <li>☼ Samples of IEC materials</li> </ul>
<b>Session 3:</b> Counselling Techniques	3 Hours	<ul style="list-style-type: none"> <li>☼ Define counselling</li> <li>☼ Explain the skills required for counselling in F/P</li> <li>☼ Discuss principles of counselling</li> <li>☼ Discuss the steps in counselling F/P clients</li> <li>☼ Explain the term "Informed choice"</li> <li>☼ Counsel F/P clients</li> </ul>	<ul style="list-style-type: none"> <li>☼ Illustrated lecture</li> <li>☼ Discussion</li> <li>☼ Role play</li> <li>☼ Case studies</li> </ul>	<ul style="list-style-type: none"> <li>☼ Flip chart and markers</li> <li>☼ Role play stories</li> <li>☼ Power-point projector</li> <li>☼ Writing board and chalk or markers</li> </ul>

## MODULE 4 SESSION 1: COMMUNICATION PROCESS IN FAMILY PLANNING

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### Time

1 Hour

### Learners' Objectives

By the end of the session, participants will be able to:

- ✿ Define communication
- ✿ State the components of an effective communication process
- ✿ Discuss the qualities of each component of an effective communication process
- ✿ Discuss the types of communication
- ✿ Explain the concepts in communication
- ✿ Discuss the IPC skills needed for effective communication
- ✿ Discuss barriers to effective communication and ways of overcoming such barriers.

### Session Overview

- ✿ Components of communication process
- ✿ Qualities of components of communication process
- ✿ Types of communication
- ✿ Concepts in communication
- ✿ IPC skills
- ✿ Factors affecting effective communication
- ✿ Ways to overcome barriers

### Methods

- ✿ Brainstorming
- ✿ Illustrated lecture
- ✿ Discussion
- ✿ Game

## Materials

- ✿ Flip chart and markers
- ✿ Writing board and chalk or markers
- ✿ Multimedia projector

## Content

### Definition of Communication

A two-way process whereby a person or group of persons (SENDER) passes a message through a channel to another person or group of persons and gets a feedback that acknowledges the recipient's understanding of the message.

### Components of Communication

M – Message

S – Source/Sender

C – Channel/Medium

R – Receiver

E – Effect

F – Feedback

- ✿ Message – Information sent out, may be verbal or non-verbal e.g. touch, gesture, facial expression
- ✿ Sender – Initiator of the communication process
- ✿ Channel/Medium – the vehicle by which information is carried or given e.g. talk, radio, T.V., newspaper
- ✿ Receiver – One getting the information from the initiator
- ✿ Feedback – Return of information to the initiator to clarify or verify understanding.

### Qualities of Components of Communication Process

#### Sender

- ✿ Must be on the same wavelength with the receiver.
- ✿ Must be identified.

#### Message

- ✿ Must be clear
- ✿ Must be simple
- ✿ Must be meaningful
- ✿ Must be concise
- ✿ Must be appropriate

### **Receiver**

- ✿ Must be on the same wave length with sender.
- ✿ Must be identified
- ✿ Must be a good listener

### **Medium**

- ✿ Should facilitate the message clearly
- ✿ Must be acceptable
- ✿ Must be accessible
- ✿ Must go two-ways

### **Feedback**

- ✿ Must be clear assessment of the message sent
- ✿ Must be encouraged
- ✿ Must be regular

### **Different Types of Communication**

There are four major forms of communication

1. **Intra-personal:** Communication with oneself. It includes the justification we make for our actions.
2. **Interpersonal:** Person-to-person communication, verbal and non-verbal exchange that involves sharing information, feelings between individuals or in small group. It is face to face and all parties involved are senders and receivers.
3. **Mass communication:** Transmitting messages to large audiences through the mass media, such as TV or radio.
4. **Organisational communication:** Communication within a group or an organisation, and among organisations. Members are aware of each other's existence. They have common interest and work together for the same goal.

### **Types of Communication Methods**

- ✿ Non-verbal
- ✿ Verbal

**Non – verbal Communication may include:**

- ✿ Facial expressions
- ✿ Hand gestures

- ⊗ Leg / foot gestures
- ⊗ Eye gestures – e.g. rolling eyes
- ⊗ Body posture / position
- ⊗ Finger drumming
- ⊗ Toe / foot tapping
- ⊗ Folded arms.

When non-verbal behaviour does not match verbal messages, the client:

- ⊗ feels uncomfortable
- ⊗ starts rumours
- ⊗ defaults (dropout)
- ⊗ uses the method incorrectly

Some of the ways in which negative feelings can be conveyed to clients during counselling include

- ⊗ shuffling papers
- ⊗ no eye contact
- ⊗ dirty office
- ⊗ look at watch
- ⊗ distracted
- ⊗ use of telephones
- ⊗ interruptions from other sources

What you can do on your part to make the client feel that you are concerned and interested in her / his case

- ⊗ Welcome client to the clinic
- ⊗ Introduce yourself
- ⊗ Speak in the client's language
- ⊗ Be patient
- ⊗ Don't interrupt
- ⊗ Make eye contact
- ⊗ Don't discuss other clients
- ⊗ Keep the clinic clean
- ⊗ Say "Mmmm", "Yes", or in some way show you are listening

Non-verbal acronym: 'ROLES' to keep in mind regarding non-verbal behaviour when interacting with clients.

- R - Relax
- O - Open up
- L - Lean towards client
- E - Eye contact
- S - Sit squarely and smile

## Verbal Communication

- ✿ How something is said is as important as what is said
- ✿ Non-verbal communication can facilitate or hinder counselling
- ✿ Try to keep in mind that interest/concern must be shown to the client in order for services to be successful.
- ✿ Words, tone and behaviour should convey interest and concern.

Verbal Communication may be influenced by emotions such as

- ✿ Anger
- ✿ Boredom
- ✿ Happiness
- ✿ Frustration
- ✿ Disgust
- ✿ Disinterest
- ✿ Impatience
- ✿ Disapproval

Encouragement and praise are important in communication with clients. Encouragement means giving supportive feedback to facilitate success.

The message given to a client when you encourage him/her is that:

- ✿ The client is valued and important
- ✿ The client can succeed despite obstacles when given the means to succeed.

Praise means giving approval or appreciation of what has been done. The message given to client when you praise him/her is that

- ✿ The client is doing the correct thing
- ✿ The correct behaviour is valued and should be continued
- ✿ Reinforces that the client can succeed
- ✿ Shows that you care enough to take notice and let her/him know that you have noticed.

Keep these 2 acronyms in mind when communicating verbally

K - Keep

I - It

S - Simple and

S - Sensible

C - Clarify

L - Listen

E - Encourage

A - Acknowledge



## R - Reflect

### Concepts in Communication

- ✿ Information (new idea introduced)
- ✿ Education (explaining new idea so that it is understood)
- ✿ Motivation (Appeals made in favour of new idea to convince the person to change attitudes and adopt it)
- ✿ IPC (face – to – face communication)
- ✿ Counselling (provides information and guidelines for decision making)

### IPC Skills

Make a short presentation on effective IPC skills

- ✿ Active listening
- ✿ Questioning with more emphasis on open ended types
- ✿ Paraphrasing
- ✿ Reflecting feelings
- ✿ Summarising

Factors affecting effective communication

- ✿ Language barrier
- ✿ Attitudes of the provider
- ✿ Knowledge of the subject matter
- ✿ Economic status
- ✿ Timing
- ✿ Physical environment
- ✿ Political constraints
- ✿ Cultural beliefs and values

Ways to overcome barrier

These include

- ✿ Knowledge of audience
- ✿ Knowledge of subject matter
- ✿ Provision of relevant and credible information
- ✿ Avoidance of judgmental behaviour
- ✿ Use of simple, clear, and culturally acceptable language the audience understands.

Demonstrate each IPC skill using non-verbal and verbal communication exercises.

## Exercise on Non-verbal Communication

Ask participants to form pairs

1. Person A - should talk for 5 minutes about some problem or concern she or he has.

Person B - should try to communicate interest, understanding, and help in any way she wishes *except* that she may not speak.

2. After 5 minutes, have pairs switch roles and repeat the exercise.
3. After another 5 minutes, stop and allow 2-3 minutes for pairs to talk freely
4. Then discuss the exercise with the group some questions to raise:
  - a. How did it feel to talk for 5 uninterrupted minutes?
  - b. How did it feel to be prevented from talking?
  - c. Did you feel your partner understood you? How did you know?

### Possible Responses

- ✿ Expression
- ✿ Body language
- ✿ Movement
- ✿ Eye contact

- d. Did anyone feel helped?
- e. Is silence difficult to tolerate? Why or why not?
- f. What specific body behaviours communicate understanding, support or helpfulness?

### Possible Responses

- ✿ Holding your hand
- ✿ Saying "Mmm"
- ✿ Eye contact
- ✿ Leaning forward

- g. What specific body behaviours communicate disagreement or unwillingness?

### Possible Responses

- ✿ Leaning back
- ✿ Cross arms

- ✿ Chin pulled down
- ✿ Frowning
- ✿ Shaking head.

h. What happens when non verbal behaviour does not match the verbal message?

#### Possible Responses

- ✿ Confusion
  - ✿ Uncertainty
  - ✿ Mistrust
  - ✿ That someone feels unhappy but does not feel free to communicate these feeling verbally.
- i. Give an example of contradictory verbal/non-verbal message
- Saying **yes** but frowning

### Verbal Communication Exercise

#### Conversation Stoppers/Enablers

1. Explain that people also communicate different emotions using tone of voice. Go around the room asking participants to say the same sentence, for example, *“what is it that you dislike about FP?”* using a different emotion.
2. Ask participants which tone of voice they would prefer someone to use with them during medical history taking, or a research interview for example. What is likely to happen if researchers use angry, frustrated, or disgusted tones?

Provide feedback on return demonstration and make appropriate corrections.

### Summary

For communication to be effective so that there will be a change in behaviour, each of the components must be adhered to properly. The message must be clear and concise and relevant to the needs of the receiver.

## Evaluation

- ✿ List the four types of communication
- ✿ Describe the components of an effective communication
- ✿ State 3 IPC skills needed for effective communication.

**Time**

2 Hours

**Learners' Objectives**

By the end of this session, participants will be able to:

- ✿ Explain the term 'IEC support material'
- ✿ Enumerate types of IEC support materials
- ✿ State the importance of using IEC support materials to communicate effectively
- ✿ List factors that ensure acceptability and effectiveness of IEC support materials
- ✿ Demonstrate the ability to use at least one IEC support material

**Session Overview**

- ✿ Definition of IEC support material
- ✿ Types of IEC support materials
- ✿ Importance of using IEC support materials
- ✿ Factors that ensure acceptability and effectiveness of IEC support materials
- ✿ Effective use and misuse of IEC support materials
- ✿ Process of designing IEC support materials

**Methods**

- ✿ Brainstorming
- ✿ Lecture
- ✿ Discussion
- ✿ Demonstration/return demonstration
- ✿ Group exercise
- ✿ Role play

**Materials**

- ✿ Flipchart and markers
- ✿ Writing board and chalk or markers
- ✿ Pamphlets, leaflets, posters, models, method samples, photographs
- ✿ Radio, audio cassette, cassette recorder, recorded radio messages (jingles)
- ✿ Video CD, VCR, Television.

## Content

### Definition of IEC Support Materials

IEC support materials assist service providers to make learning or counselling session interesting and easier to understand.

### Types of IEC Support Materials

- ✿ Pamphlets
- ✿ Leaflets
- ✿ Flipcharts
- ✿ Models
- ✿ Posters
- ✿ Wall charts
- ✿ Family Planning commodities
- ✿ Photographs
- ✿ Radio, audiocassettes, cassette recorders
- ✿ Video CDs and television

### Importance of using IEC Materials

The support materials will

- ✿ Engage the client's attention
- ✿ Help explain sensitive issues, such as condom use
- ✿ Help the client remember important information
- ✿ Provide consistent information to all clients
- ✿ Show the service provider's interest in the client
- ✿ Provide information on side effects and thus help clients cope with minor problems.

### Factors that ensure acceptability and effectiveness of IEC support materials

- ✿ Words and pictures should be easy to see
- ✿ Words and pictures should be easy to understand
- ✿ Information should be clear and unambiguous
- ✿ Text should be clearly linked to the illustration
- ✿ Text should address one theme
- ✿ Support materials should be appealing and captivating
- ✿ Language should be appropriate for the intended audience
- ✿ Message should be relevant, clear, precise, culturally acceptable, credible and timely

Video show on IEC support material when available would be appropriate at this point.

## Effective Use and Misuse of IEC Support Materials

### How to use posters

Display motivational posters in places of high visibility, such as clinics, schools, banks, kiosks, and petrol stations. Ask permission first so that your poster is not ripped down and wasted

Educational posters can be placed in the same places if appropriate. Think about what the poster is meant to do and who will see it.

You can also use posters to stimulate discussion with a group (for example, in a clinic).

### How to use flip chart

When using the flip chart with a group, be sure to stand where the whole group can see the flip chart. **Always face the audience.** Hold the flip chart so that the group can see it, point to the picture, not the text. Move around the room with the flip chart if the whole group cannot see it at one time.

Try to involve the group. Ask them questions about the drawing. If the flip chart has text, use it as a guide and familiarise yourself with the content.

### How to use Booklets

Booklets are designed to reinforce or support verbal messages of health workers. The materials are not a substitute for good interpersonal communication skills, but if used properly, they strengthen the messages you give to clients. The following are suggestions on how to use booklets.

1. Go through each page of the booklet with the client. This will give you a chance to both show and tell about a health problem or practice and answer any questions the client has.
2. Point to the picture, not to the text that appears on the page. This will help the client to remember what the illustrations represent.
3. Observe the client to see if he/she looks puzzled or worried, if so; encourage him/her to ask questions and to talk about any concerns. Discussion helps establish a good relationship and builds trust between you and the client. A person who has confidence in his or her health worker will often transfer that confidence to the method or health practice selected.

4. Give the client the booklet to keep and suggest that he/she shares it with others, even if the client makes a decision not to use the method or health practice described.

### **How to use Non-print Media**

Use songs, jingles, plays, puppetry, television or radio programs, videotapes, and traditional dance in presentations to make people aware of family planning or health services or stimulate their thinking about family planning and health issues by dramatising them. These means can also be used to provide information about methods and practices.

As with print materials that are used in a group, non-print media are more effective when they can be seen and heard clearly by everyone in the group.

### **To get the most out of non-print Media**

1. Use non-print materials in-groups. They are usually intended for an audience of more than one.
2. Be familiar with the materials
3. Ask group members questions about what they've seen, or heard.

### **Misuse of IEC Support Materials**

- ⊗ When the support materials are used as substitute for interpersonal communication
- ⊗ When service provider gives support materials to the client before initiating any method
- ⊗ When the material disrupts the smooth flow of the counselling process
- ⊗ When inappropriate material is used in motivational or counselling session
- ⊗ Poor presentation for example when the material is placed too far from the audience, or service provider points to the picture or words which he may not be describing at that time

### **Process of Designing IEC Support Material**

These materials were developed after discussing the issues, questions, and rumours that concern clients and service providers. Drafts of the materials were shown to clients and service providers many times and revised based on their suggestions.



## Why were these Materials Developed?

Service providers can use these materials to help clients:

- ⊗ Describe which family planning method or health practice is best for them
- ⊗ Understand what to expect when they use a specific family planning method or health product or practice
- ⊗ Remember how to use the method or health practice correctly.

## IEC Materials must go through the following Stages

1. Know your audience through audience research
2. Decide the information you want to pass and the key points
3. Design the message and the material
4. Pre-test the message and the materials with the intended audience
5. Revise the materials and if necessary pre-test again until it is acceptable to the intended audience
6. Finalise the material by incorporating ideas from the pre-test.
7. Print and distribute

Use the designed materials appropriately as described earlier.

## Summary

IEC materials are support materials that help the client to understand the use of family planning methods.

## Evaluation

- ⊗ List 5 types of IEC materials
- ⊗ State the importance of IEC materials
- ⊗ Mention 4 ways by which IEC material can be mis-used.

## MODULE 4 SESSION 3: COUNSELLING TECHNIQUES

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### Time

3 Hours

### Learners' Objectives

By the end of the session, participants will be able to:

- ✿ Define counselling
- ✿ Explain the skills required for counselling in Family Planning
- ✿ Discuss the principles of counselling
- ✿ Discuss the steps in counselling F/P clients
- ✿ Explain the term informed choice
- ✿ Effectively counsel family planning clients

### Session Overview

- ✿ Definition of counselling
- ✿ Family planning counselling skills
- ✿ Principles of counselling
- ✿ Steps in counselling
- ✿ Informed choice
- ✿ Clinical practice in counselling

### Methods

- ✿ Illustrated lecture
- ✿ Discussion
- ✿ Role play
- ✿ Case studies

### Materials

- ✿ Flip chart and markers
- ✿ Role play stories
- ✿ Multimedia projector
- ✿ Writing board and chalk or markers

## Content

### Definition

Counselling is a form of interpersonal communication in which the counsellor helps the client to identify, clarify and resolve problems, make informed decision and act on that decision. It can also be briefly described as a provider – client interaction in which the counsellor provides adequate information to enable the client make an informed choice about any contraceptive method she desires.

### Family Planning Counselling Skills

The following verbal and non-verbal skills are essential to the provision of FP counselling sessions:

- ☼ Active listening
- ☼ Use of encouraging cues
- ☼ Questioning
- ☼ Observation
- ☼ Paraphrasing – reflection of words and feelings
- ☼ Summarising

### Principles of Counselling

1. **Treat each client well.** The provider is polite, shows respect for every client, and creates a feeling of trust. The provider shows the client that she or he can speak openly, even about sensitive matters. The provider, too, speaks openly and answers questions patiently and fully. Also, the provider assures the client that nothing she or he says will be discussed with others inside or outside the clinic.
2. **Interact.** The provider listens, learns, and responds to the client. Each client is a different person. A provider can help best by understanding that person's needs, concerns, and situation. Therefore the provider encourages clients to talk and ask questions.
3. **Tailor information to the client.** Listening to the client, the provider learns what information each client needs. Also, the stage of a person's life suggests what information may be most important. For example, a young, newly married woman may want to know more about temporary methods for birth spacing. An older woman may want to know more about female sterilisation and vasectomy. A young, unmarried man or woman may need to know more about avoiding sexually transmitted infections (STIs). The provider gives the information accurately in the language that the client can understand.

Also, the provider helps the client understand how information applies to *his or her own* personal situation and daily life. *Personalising* information bridges the gap between the provider's knowledge and the client's understanding.

4. **Avoid too much information.** Client needs information to make informed choice. But no client can use all information about every family planning method. Too much information makes it hard to remember really important information. This has been called "information overload". Also, when the provider spends all the time giving information, little time is left for discussion or for the client's questions, concerns, and opinions.
5. **Provide the method that the client wants.** The provider helps clients make their own informed choices and the provider respects those choices, even if a client decides against using family planning or puts off a decision. Most new clients already have a family planning method in mind. Good counselling about method choice checks whether the client has conditions that might make use of the methods not medically appropriate as well as whether the client understands the method and how it is used. Counselling also addresses advantages and disadvantages, health benefits, risks, and side effects. The provider also may help the client think about other, similar methods and compare them. In this way the provider makes sure that the client is making an informed choice. If there is no medical reason against it, clients should have the methods that they want. When clients get the methods they want, they use them longer and more effectively.
6. **Help the client understand and remember.** The provider shows sample family planning materials, encourages the client to handle them, and shows how they are used. Also, the provider shows and explains flip charts, posters, or simple pamphlets or printed pages with pictures. From time to time, the provider checks that the client understands. If the client can be given print materials to take home, they help remind clients what to do. They can be shared with others, too.

## **'6 Topics'**

Counselling should be tailored to each client. At the same time, most counselling about method choice covers 6 topics.

Information on these topics also should reach clients in many other ways – for example, on radio and television, in posters and pamphlets, and in community meetings. When clients have accurate information even *before* they see a provider, the provider's work is easier, and the client can make better decisions. Of course, it is important that the information from different sources be as consistent as possible.

1. **Effectiveness.** How well a family planning method prevents pregnancy depends more on the user for some methods than for others. Pregnancy rates for methods *as commonly* used give clients a rough idea of what they can expect. Still, their own experience may be better or worse – sometimes much better or much worse. Pregnancy rates for methods used *consistently* and *correctly* gives an idea of the best possible effectiveness. Providers can help clients consider whether and how they can use a specific method consistently and correctly.

For some clients, effectiveness is the most important reason for choosing a method. Other clients have other reasons for their choices.

2. **Advantages and disadvantages.** Clients need to understand both advantages and disadvantages of a method *for them* (tailored information). It is important to remember that disadvantages for some people are advantages for others. For example, some women prefer injections. Others want to avoid injections.
3. **Side effects and complications.** If methods have side effects, clients need to know about them before they choose and start a method. Clients who learn about side effects ahead of time tend to be more satisfied with their methods and use them longer.

Clients need to know which side effects may be bothersome but are not signs of danger or symptoms of a serious condition. With some methods, such side effects may be fairly common. Also, clients need to know what symptoms, if any, are reasons to see a doctor or nurse or to return to the clinic. These symptoms may point to a rare but serious side effect. Clients need to understand the difference.

4. **How to use.** Clear, practical instructions are important. Instructions should cover what clients can do if they make a mistake with the methods (such as forgetting to take a pill) and also what clients and providers can do if problems come up (such as bothersome side effects). Also, clients may need special help on matters such as remembering to take a pill each day or discussing condoms with a sex partner.
5. **STI prevention.** Some STIs, including HIV/AIDS, are spreading in Nigeria. With sensitivity, family planning providers can help clients understand and measure their risk of getting STIs. Family planning clients should know that to use condoms, they might be protected against STIs – even if they are using other family planning methods. Providers can explain the ABCs of safe behaviour: Abstinence, Being mutually faithful, Condom use.
6. **When to return.** There are many good reasons to return to the clinic. Some methods require return visits for more supplies. Clients should be told of several places to get more supplies, if possible. In contrast, some methods, for example, IUDs, female sterilisation, and vasectomy, require at most one routine

return visit. Clients should not be asked to make unnecessary visits. Still, the provider always makes it clear that the client is always welcome back any time for any reason, e.g. for example, if she or he wants information, advice, or another method or wants to stop using an IUD or Norplant implants. Providers make clear that changing methods is normal and welcome.

## 6 Steps in Counselling New Clients

Deciding on a family planning method and using it involve a step-by-step process. The process includes learning, weighing choices, making decisions, and carrying them out. Therefore counselling new clients about family planning usually is a process too. The process can consist of 6 steps. These 6 steps can be remembered with the word **GATHER**.

Good counselling is flexible, however. It changes to meet the special needs of the clients and situation. Not every new client needs all 6 steps. Some clients need more attention to one step than another. Some steps can be carried out in group presentations or group discussions. Other steps usually need one-on-one discussion.

### The GATHER Steps

- G - Greet clients in an open, respectful manner.** Give them full attention. Talk in a private place if possible. Assure the client of confidentiality. Ask the client how you can help, and explain what the clinic can offer in response.
- A - Ask clients about themselves.** Help clients talk about their family planning and reproductive health experiences, their intentions, concerns, wishes, and current health and family life. Ask if the client has a particular family planning method in mind. Pay attention to what clients express with their words and their gestures and expressions. Try to put yourself in the client's place. Express your understanding. Find out the client's knowledge, needs, and concerns so you can respond helpfully.
- T - Tell clients about choices.** Depending on the client's needs, tell the client what reproductive health choices she or he might make, including the choice among family planning methods or to use no method at all. Focus on methods that most interest the client, but also briefly mention other available methods. Also, explain any other available services that the client may want.

- H - Help clients make an informed choice.** Help the client think about what course of action best suits his or her situation and plans. Encourage the client to express opinions and ask questions. Respond fully and openly. Consider medical eligibility criteria for the family planning method or methods that interest the client. Also, ask if the client's sex partner will support the client's decisions. If possible, discuss choices with both partners. In the end, make sure that the client has made a clear decision. The provider can ask, "What have you decided to do?" or perhaps, "What method have you decided to use?"
- E - Explain fully how to use the chosen method.** After a client chooses a family planning method, give her or him the supplies, if appropriate. Explain how the supplies are used or how the procedure will be performed. Again encourage questions, and answer them openly and fully. Give condoms to everyone at risk for Sexually Transmitted Infections (STIs), and encourage him or her to use condoms along with any other family planning method. Check that clients understand how to use their method.
- R - Return visits should be welcomed.** Discuss and agree on when the client will return for follow-up or more supplies, if needed. Also, always invite the client to come back any time for any reason.

### **Counselling Continuing Clients**

Continuing clients are just as important as new clients. They deserve just as much attention as new clients. Counselling continuing clients usually focuses on talking with clients about their experience and needs. Tests and examinations generally are not needed unless a special situation calls for them.

Like counselling new clients, counselling continuing clients can be flexible. It should change to meet the client's needs. For example, returning clients may need more supplies, answers to questions, help with problems, a new method, removal of Norplant implants or an IUD, or help with another reproductive health problem such as STIs or unexplained vaginal bleeding.

Usually, counselling the continuing client involves finding out what the client wants and then responding:

- ☼ If the client has problem, resolve them. This can include offering a new method or referring the client elsewhere if needed.
- ☼ If the client has questions, answer them
- ☼ If the client needs more supplies, provide accordingly
- ☼ Make sure the client is using her or his method correctly, and offer help if not.

## What Does “Informed Choice” Mean?

When a person freely makes a thought-out decision based on accurate, useful information, this is an informed choice. One important purpose of family planning counselling is to help the client make informed choices about reproductive health and family planning.

“**Informed**” means that:

- ⊗ **Clients have the clear, accurate, and specific information that** they need to make their own reproductive choices including a choice among family planning methods. Good – quality family planning programs can explain each family planning method as needed – without information overload – and can help clients use each method effectively and safely.
- ⊗ **Clients understand their own needs** because they have thought about their own situations. Through person-to-person discussions and counselling and through mass-media messages, good-quality family planning programmes help clients match family planning methods with their needs.

“**Choice**” means that

- ⊗ Clients have a range of family planning methods to choose from. Good-quality family planning services offer different methods to suit people’s differing needs – not just 1 or 2 methods. If programs cannot provide a method or service, they refer clients somewhere else for that method.
- ⊗ Clients make their own decisions. Family planning providers help clients think through their decisions, but they do not pressure clients to make a certain choice or to use a certain method.

## Summary

Counselling is the ‘heart’ of family planning. With effective counselling, clients are able to continue with the use of a method, become satisfied and advocate its use by others.

## Evaluation

- ⊗ Define Counselling
- ⊗ List the six steps in counselling new client
- ⊗ Explain the term informed choice.



## ***MODULE 5***

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## MODULE 5

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### CONTRACEPTIVE TECHNOLOGY

This module aims to provide participants with knowledge and skills desirable for the provision of all contraceptive methods using up-to- date information and state of the art methods for service delivery. It covers all currently available methods including new trends in FP.

**Session 1:** Abstinence and coitus interruptus (withdrawal method)

**Session 2:** Natural Family planning / Fertility Awareness Method  
And Lactational Amenorrhea Method

**Session 3:** Barrier methods

**Session 4:** Hormonal Contraceptive

**Session 5:** Intra Uterine Device

**Session 6:** Voluntary Surgical Contraception

**Session 7:** Emergency Contraception

**Session 8:** New Trends in Family Planning

## MODULE PLAN - CONTRACEPTIVE TECHNOLOGY

TITLE	DURATION	OBJECTIVE	METHODS	MATERIALS
<b>Session 1:</b> Abstinence and Coitus interruptus	30 Minutes	<ul style="list-style-type: none"> <li>⊗ Discuss the effectiveness rate, advantages and disadvantages of abstinence and coitus interruptus</li> <li>⊗ Instruct clients on how to practice Coitus interruptus</li> </ul>	<ul style="list-style-type: none"> <li>⊗ Illustrated Lecture</li> <li>⊗ Discussion</li> <li>⊗ Brainstorming</li> </ul>	<ul style="list-style-type: none"> <li>⊗ Flip chart and markers</li> <li>⊗ Writing board and chalk/markers</li> <li>⊗ Multimedia projector</li> </ul>
<b>Session 2:</b> Natural Family Planning (NFP) Fertility Awareness Method (FAM) and Lactational Amenorrhoea Method (LAM) Standard Days Method (cycle beads)	90 Minutes	<ul style="list-style-type: none"> <li>⊗ Define NFP, FAM and LAM</li> <li>⊗ State the characteristics of these methods</li> <li>⊗ Assist clients to use NFP/FAM and LAM effectively</li> <li>⊗ Assist clients to use cycle beads correctly</li> </ul>	<ul style="list-style-type: none"> <li>⊗ Illustrated Lecture</li> <li>⊗ Discussion</li> <li>⊗ Brainstorming</li> <li>⊗ Group exercise</li> </ul>	<ul style="list-style-type: none"> <li>⊗ Writing board and chalk or markers</li> <li>⊗ Multimedia projector</li> <li>⊗ Flip chart and markers</li> <li>⊗ Cycle Beads</li> </ul>
<b>Session 3:</b> Barrier Methods	2 Hours	<ul style="list-style-type: none"> <li>⊗ Describe the types and characteristics of barrier method of family planning</li> <li>⊗ Screen clients appropriately for use of these methods</li> <li>⊗ Demonstrate appropriate method of use of each barrier contraceptive</li> <li>⊗ Identify and manage side effects of barrier methods</li> </ul>	<ul style="list-style-type: none"> <li>⊗ Illustrated Lecture</li> <li>⊗ Discussion</li> <li>⊗ Demonstration/Return Demonstration</li> <li>⊗ Brainstorming</li> </ul>	<ul style="list-style-type: none"> <li>⊗ Flip chart and markers</li> <li>⊗ Writing board and chalk/ marker</li> <li>⊗ Multimedia projector</li> <li>⊗ Models – pelvic, penile</li> <li>⊗ Samples of the commodities</li> <li>⊗ Arm model</li> </ul>
<b>Session 4:</b>	1 hour	<ul style="list-style-type: none"> <li>⊗ 2008 Medical Eligibility Criteria on categories of Clients who can or cannot use method</li> </ul>	<ul style="list-style-type: none"> <li>⊗ Illustrated Lecture</li> <li>⊗ Discussion</li> </ul>	<ul style="list-style-type: none"> <li>⊗ Flip chart and markers</li> <li>⊗ Multimedia Projector</li> </ul>
<b>Session 5:</b> Hormonal Contraceptives	2 hours	<ul style="list-style-type: none"> <li>⊗ Describe the types and characteristics of hormonal contraceptives</li> <li>⊗ Screen clients appropriately for the use of hormonal FP methods</li> <li>⊗ Initiate clients on hormonal contraceptives (except Norplant)</li> <li>⊗ Refer suitable clients for Norplant services</li> <li>⊗ Identify and manage side effects and complications of hormonal family</li> </ul>	<ul style="list-style-type: none"> <li>⊗ Illustrated lecture</li> <li>⊗ Brainstorming</li> <li>⊗ Discussion</li> <li>⊗ Group Exercises</li> <li>⊗ Demonstration</li> </ul>	<ul style="list-style-type: none"> <li>⊗ Flip chart and marker</li> <li>⊗ Multimedia projector</li> <li>⊗ Writing board and chalk/markers</li> <li>⊗ Samples of Commodities</li> <li>⊗ Arm model</li> </ul>

TITLE	DURATION	OBJECTIVE	METHODS	MATERIALS
<b>Session 6:</b> Intra-uterine devices (IUDs)	2 Hours	<ul style="list-style-type: none"> <li>planning methods</li> <li>Describe the types and characteristics of IUDs</li> <li>Screen clients appropriately for IUD use</li> <li>Demonstrate appropriate techniques for IUD insertion and removal</li> <li>Identify and manage side effects and complications of IUDs</li> </ul>	<ul style="list-style-type: none"> <li>Illustrated lecture</li> <li>Brainstorming</li> <li>Discussion</li> <li>Group Exercises</li> <li>Demonstration/Return demonstration</li> </ul>	<ul style="list-style-type: none"> <li>Flip chart and marker</li> <li>Multimedia projector</li> <li>Writing board and chalk/markers</li> <li>Samples of Commodities</li> <li>Pelvic model</li> <li>IUD insertion and removal instrument</li> </ul>
<b>Session 7:</b> Voluntary Surgical Contraception (VSC)	1hr. 30mins	<ul style="list-style-type: none"> <li>Describe the types and characteristics of VSC</li> <li>Explain specific counselling issues for VSC</li> <li>Screen clients appropriately for VSC</li> <li>Describe the pre, intra and post operative monitoring for VSC</li> <li>Identify and manage complications of VSC</li> </ul>	<ul style="list-style-type: none"> <li>Illustrated lecture</li> <li>Brainstorming</li> <li>Discussion</li> </ul>	<ul style="list-style-type: none"> <li>Multimedia projector</li> <li>Television</li> <li>VCR</li> <li>Teaching video</li> </ul>
<b>Session 8:</b> Emergency contraception	1 hour	<ul style="list-style-type: none"> <li>Describe the types and characteristics of emergency contraceptives</li> <li>Screen clients appropriately for each type of EC</li> <li>Initiate clients on appropriate EC</li> <li>Identify and manage side effects and complications of EC</li> <li>Institute appropriate management for failure of EC</li> </ul>	<ul style="list-style-type: none"> <li>Illustrated Lecture</li> <li>Discussion</li> <li>Brain-storming</li> </ul>	<ul style="list-style-type: none"> <li>Flip chart and markers</li> <li>Writing board and chalk/ marker</li> <li>Multimedia projector</li> <li>Commodity samples</li> </ul>
<b>Session 9:</b> New Trends in Family Planning	1 hour 30 minutes	<ul style="list-style-type: none"> <li>List at least 3 sources for keeping up with new trends in family planning</li> <li>Describe recent changes in FP practice which require adaptive technology</li> <li>List contraceptive methods under development.</li> <li>Describe the desirable evolution of FP programs based on the consideration of global trends and goals</li> </ul>	<ul style="list-style-type: none"> <li>Illustrated Lecture</li> <li>Discussion</li> <li>Brain-storming</li> </ul>	<ul style="list-style-type: none"> <li>Multimedia</li> <li>Projector</li> <li>Samples of new commodities</li> </ul>

## MODULE 5 SESSION 1: ABSTINENCE AND COITUS INTERRUPTUS

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### Time

30 Minutes

### Learners' Objectives

By the end of the session, participants will be able to:

- ✿ Discuss the effectiveness rate, advantages and disadvantages of abstinence and coitus interruptus
- ✿ Instruct clients on how to practice coitus interruptus

### Session Overview

- ✿ Definitions and mechanism of action
- ✿ Advantages
- ✿ Disadvantages
- ✿ Instruction for clients

### Methods

- ✿ Illustrated lecture
- ✿ Discussion
- ✿ Brainstorming

### Materials

- ✿ Flip charts and markers
- ✿ Writing board and chalk or markers
- ✿ Multimedia projector

## Content

### Abstinence

This means avoiding having sexual intercourse:

- ✿ Whether practised by personal, voluntary restraint or by physical separation (a post-delivery custom in many societies), abstinence is the only 100% effective method of contraception.
- ✿ Because it introduces many other constraints into the dynamics of the couple relationship, abstinence and its meanings and ramifications should be thoroughly explored before choosing it as a primary, long-term method of contraception.

### Advantages

- ✿ Can increase self-esteem and positive self image if morally significant to an individual
- ✿ Decreased risk of cervical dysplasia
- ✿ Decreased risk of STIs, including HIV/AIDS (varies by what other sexual practices involved)
- ✿ Can be started at any time
- ✿ No financial cost
- ✿ Many religions and cultures endorse it (at various stages in an individual's life)
- ✿ No physical side effects
- ✿ No effect and no difficulty in return to fertility.

### Disadvantages

- ✿ Frustration or sense of rejection if not self-selected
- ✿ Requires commitment and self-control; non-understanding partner may seek other partners or become violent.
- ✿ Client and partner may not be prepared for contraception if they stop abstaining.
- ✿ High dropout rate in those not well motivated

### Client who can use

- ✿ Individuals or couples who feel they have the ability to refrain from sexual intercourse
- ✿ Appropriate for all, including adolescents but users need to learn negotiating skills for effectiveness.

### **Instructions to Client**

- ✿ Establish ground rules for self and partner
- ✿ Prepare for time when (or if) decision to stop abstaining arises
- ✿ Have condoms and emergency contraception on hand in case of need.

### **Coitus Interruptus**

Coitus interruptus (withdrawal method) is the term used for the method of contraception where the penis is withdrawn from the vagina just before ejaculation.

Typical use failure rate in first year = 27% (Very high)

Note: In the absence of any other family Planning method, use of withdrawal is better than no method.

### **Advantages**

- ✿ No barriers
- ✿ Readily available and encourages male involvement
- ✿ May introduce variety into sexual relationship
- ✿ No financial cost
- ✿ No physical side effects

### **Disadvantages**

- ✿ May be difficult for couples with sexual dysfunction such as premature or unpredictable ejaculation
- ✿ Requires the co-operation of the couple
- ✿ May reduce sexual pleasure of woman and intensity of orgasm of man
- ✿ No protection against STIs
- ✿ High failure rate

### **Clients who can use**

- ✿ Couples who are able to communicate during sexual intercourse
- ✿ Disciplined man who can withdraw before ejaculation
- ✿ Couples in stable, mutually monogamous relationship
- ✿ Couples without cultural or religious prohibition to withdrawal
- ✿ Couples willing to accept higher risk of unintended pregnancy
- ✿ Couples who are unwilling to use any other method.

### **Instruct Clients as Follows**

- ⊗ Wipe off any fluid at the tip of the penis before intercourse (pre-ejaculatory emissions may contain sperm)
- ⊗ Withdraw the penis from the vagina when ejaculation is about to occur making sure ejaculation occurs away from the entrance to the vagina
- ⊗ Do not use this method if there are going to be repeated acts of intercourse
- ⊗ Do not use this method if you are not in full control of ejaculation.
- ⊗ Have available supplies of foam or other quick acting spermicide in case of an accident (failure to withdraw completely before ejaculation has taken place), better yet, insert spermicides before intercourse. Failure rate is reduced if used in combination with spermicides.
- ⊗ In case of an accident also consider using emergency contraception.

### **Summary**

Abstinence and Coitus Interruptus are temporary methods, which have been practiced for several ages. Abstinence remains the safest method of contraception but requires high degree of discipline. Equally Coitus Interruptus requires the same sense of discipline on the part of the male partner if a good degree of success is expected.

### **Evaluation**

- ⊗ List 2 advantages and disadvantages of abstinence.
- ⊗ Mention the categories of clients who can use abstinence and Coitus interruptus methods of contraception.



## MODULE 5 SESSION 2: NATURAL FAMILY PLANNING (NFP) METHODS

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### Time

90 Minutes

### Learners' Objectives

By the end of the session, participants will be able to:

- ✿ Define NFP, FAM and LAM
- ✿ State the characteristics of these methods
- ✿ Display Skills to counsel clients to use NFP/FAM, LAM and SDM effectively

### Session Overview

- ✿ Effectiveness
- ✿ Equipment and materials
- ✿ Procedure
- ✿ Instructions to clients

### Methods

- ✿ Illustrated lecture
- ✿ Discussion
- ✿ Brainstorming
- ✿ Group exercise

### Materials

- ✿ Writing board and chalk or markers
- ✿ Multimedia projector
- ✿ Flip chart and markers
- ✿ Temperature Chart
- ✿ Cycle beads

## Content

### Natural Family Planning (NFP) & Fertility Awareness Based Methods (FAM)

#### Description

This involves the use of physical signs, symptoms and cycle data to determine when ovulation occurs. Same techniques may be used to help couples become pregnant by detecting ovulation. When couples are using NFP, they should abstain from intercourse during the at-risk fertile days. With FAM, couples use another method such as barriers or withdrawal during those days. The same techniques used to teach fertility awareness can be used either to prevent pregnancy or to help a woman become pregnant.

#### Effectiveness

The success of the fertility awareness based methods depends on

- ⊗ The accuracy of the method in identifying the woman's actual fertile days
- ⊗ Couples' ability to correctly identify the fertile time
- ⊗ Couple's ability to follow the rules of the method they are using

#### NFP/FAM First-year failure rate (100 women-years of use)

Method	Typical use*	Perfect use
Calendar	25	9
Ovulation Method	25	3
Symptothermal	25	2
Post-ovulation	25	1
*FAM usually more effective than NFP		

Source: Trussel in *Contraceptive Technology*, 2002

#### Methods of Determining High-Risk Fertile Days

- ⊗ The basal body temperature (BBT) method
- ⊗ The calendar/rhythm method
- ⊗ The cervical mucus method (CMM) or Billings ovulation method.
- ⊗ The sympto-thermal method (STM)

## Specific Counselling Issues

### Advantages

- ✿ Involves men in family planning
- ✿ No physical side effect
- ✿ No effect on breastfeeding or breast milk
- ✿ Safe
- ✿ Helpful for planning or preventing pregnancy
- ✿ Inexpensive
- ✿ Acceptable to many religious groups that oppose conventional methods.
- ✿ Encourage couples to communicate about family planning and sexuality
- ✿ Educate people about women's fertility cycles
- ✿ No effect on fertility

### Disadvantages

- ✿ Requires high motivation for success
- ✿ Restricts sexual spontaneity
- ✿ Not suitable for women with irregular menstrual cycles,
- ✿ Require a long time of practice
- ✿ No protection against HIV/AIDS, STIs; to achieve dual protection (use condom or abstinence).
- ✿ Difficult to use after childbirth until menstrual cycle becomes regular again
- ✿ Fever, Vaginal infection and bleeding may affect effective use of NFP
- ✿ Challenge in polygamous settings.

### When can fertility awareness-based methods be used?

This method can be used when

- ✿ Client's choice is influenced by religious or other personal reasons
- ✿ Other methods are contraindicated
- ✿ Medical care is inaccessible
- ✿ An inexpensive method is required

### When can fertility awareness-based methods not be used?

This method cannot be used if

- ✿ There is no knowledgeable instructor to teach the client
- ✿ Client is not motivated
- ✿ Client is not comfortable touching her genitals
- ✿ Client cannot understand how to use the methods
- ✿ Menstrual cycle is irregular (for calendar method)
- ✿ There is alteration of cervical mucus e.g. infections, erosions
- ✿ Immediate post partum or post abortion
- ✿ Poorly educated clients (except cycle beads)

### **Equipment and Materials**

- ⊗ Special basal body temperature thermometer
- ⊗ Temperature chart
- ⊗ Calendar
- ⊗ Fertility regulation calculator
- ⊗ Cycle beads

### **Procedure**

- ⊗ Obtain history including regularity of menstruation
- ⊗ Do a physical examination

### **Instructions to Client**

#### **Basal Body Temperature Method**

Instruct clients to

- ⊗ Take temperature in the morning before getting out of bed and before eating or drinking anything or putting anything in the mouth (after at least three hours of sleep)
- ⊗ Take temperature at the same time every morning, in the same way, either orally, rectally or vaginally, orally for 5 minutes, vaginally for 3 minutes and rectally for 2 minutes
- ⊗ Record the reading at the level the mercury stops
- ⊗ If mercury stops in between two readings take the lower reading as your temperature
- ⊗ Record reading on a temperature chart
- ⊗ Abstain from intercourse from the first day of your period until after the third consecutive day of rise in the body temperature( use a back up or abstain)
- ⊗ Do not use this method if you are breast feeding (temperature may not rise during this period)
- ⊗ Request client to repeat instructions and demonstrate charting of temperature on the chart.

### **Effectiveness**

Basal body temperature method is 99% effective with perfect use

#### **Calendar/Rhythm Method**

##### **Instruct clients as follows**

Record the first day of each menstrual cycle for 6 – 12 months

- ⊗ Determine the beginning of the fertile period by subtracting 18 days from the shortest cycle

- ⊗ Determine the end of the fertile period by subtracting 11 days from the longest cycle
- ⊗ If your longest period is 31 days and the shortest is 23 days your fertile period is from the 5th to the 20th day of your cycle, i.e. 16 days
- ⊗ Abstain from intercourse during this period every month
- ⊗ If your period is irregular do not use this method of contraception, use spermicidal or other barrier methods as well
- ⊗ Request client to repeat instruction

### **Effectiveness**

Calendar/rhythm method is 91% effective with perfect use

## **The Cervical Mucus (Billings) Method**

### **Explain the following to the client**

Billings method is based on changes that take place in the quantity and quality of the cervical mucus during the menstrual cycle. Prior to ovulation the mucus is thick. At ovulation the mucus becomes thin, clear, plenty in amount and watery. It is easily stretched out between the fingers, like egg white. After ovulation it becomes thick again and does not flow.

### **Instructions to client**

- ⊗ Abstain from intercourse during menstruation
- ⊗ Feel the vagina daily for mucus
- ⊗ Record findings daily on appropriate chart
- ⊗ Have sexual intercourse during the 'dry' days when no mucus appears
- ⊗ Abstain from intercourse once mucus appears and continue abstinence until four days after mucus has ceased to be felt
- ⊗ Do not douche, as this alters the nature of the cervical mucus
- ⊗ Abstain from intercourse whenever there is inter-menstrual bleeding
- ⊗ Abstain on alternate days, during the learning phase, prior to onset of the feeling or observation of mucus. This is to reduce the confusion that may arise as a result of the presence of seminal fluid

### **Effectiveness**

Cervical mucus (Billings) method is 97% effective with perfect use

**Characteristics of cervical mucus in various phases of the normal menstrual cycle and the corresponding rules for intercourse**

	<b>Phase of Menstrual Cycle</b>	<b>Approximate Number of Days in an Ideal 28-Day Cycle</b>	<b>Characteristics of Mucus</b>	<b>Woman's Sensations</b>	<b>Rules for Intercourse</b>
Phase 1	Menstruation	3-5	Mucus, indicating the onset of the fertile period may or may not be present but is obscured by menstrual flow.	Wet and lubricative	Abstain, since type of mucus, if any, cannot be ascertained
Phase 2	Postmenstrual	2-4	No mucus ('dry days') or Mucus present in small amounts	Dry or Sticky and/or moist	Coitus is permitted but not on consecutive days since seminal fluid following intercourse may obscure the mucus
Phase 3	Early preovulatory days	2	Cloudy white or, yellow and of sticky consistency	Sticky and/or moist	Abstain
Phase 4	Immediately before, at, and after ovulation	3-5	Clear, slippery, wet, and stretchy, with the consistency of raw egg white. (Last day of this phase is known as the "peak symptom".)	Lubricative and/or wet	Abstain
Phase 5	Immediate postovulatory days	0-3	Small amounts of cloudy, sticky mucus or No mucus	Sticky and/or moist or Dry	Abstain
Phase 6	Postovulatory infertile days	7-12	Usually no mucus, dry	Dry	Coitus is permitted beginning on the fourth day after the last day of wet, stretchy mucus. Coitus permitted
Phase 7	Late postovulatory days	0-3	Clear and watery	Sticky and/or moist and/or wet	Coitus permitted

## Sympto - Thermal Method

This is a combination of the temperature, calendar and mucus methods to determine time of ovulation. Other ovulation-associated signs and symptoms such as breast tenderness, feeling of being bloated, and mid-cycle pain, vaginal spotting, are also used in this method.

### Instructions to client

Ask the client to:

- ⊗ Avoid intercourse during the fertile period as determined by BBT or calendar method, or when mucus is first noted, whichever comes first

### Effectiveness

Sympto-thermal method is 98% effective with perfect use

## Breastfeeding, Lactation Amenorrhea Method (LAM)

In general, breastfeeding delays the return of fertility at postpartum. However, LAM is a contraceptive method based on exclusive breastfeeding. LAM is an effective method only under specific conditions:

- ⊗ Woman breastfeeding exclusively
- ⊗ The woman is amenorrhoeic
- ⊗ The infant is less than 6 months old

The medical duration of exclusive breastfeeding is approximately 6 months. It is wise to provide a woman with another method to use when she no longer fulfils all the conditions

Baby suckling on the mother's nipple causes a surge in maternal prolactin, which inhibits estrogen production and ovulation

### Effectiveness

Perfect use failure rate in first 6 months: 0.5%

Typical use failure rate in first 6 months: 2%  
(Kennedy 1998)

At any time a woman is concerned, emergency contraception may be used by nursing mother (preferably with levonorgestrel-only pills)

### Cost

None

## Advantages

Note: Most advantages and disadvantages are attributable to breastfeeding itself. The additional benefits accruing to LAM as a contraceptive method are minimal. These are:

- ✿ Involution of the uterus occurs more rapidly; suppresses menstruation
- ✿ Breast-feeding pleasurable to some women
- ✿ Facilitates bonding between mother and child (if not stressful)
- ✿ Reduces risk of ovarian cancer and endometrial cancer; possible slight protective effect against breast cancer
- ✿ Can be used immediately after childbirth
- ✿ Protects baby against asthma, allergies, URIs, diarrhoea and other infections by passage of mother's antibodies into breast milk
- ✿ Facilitates postpartum weight loss in the mother
- ✿ No expense and less time used for preparing and feeding

## Disadvantages

- ✿ Return of ovarian function and menstruation unpredictable
- ✿ Breastfeeding mother may be self-conscious
- ✿ Hypoestrogenism of breastfeeding may cause dyspareunia due to lack of lubrication
- ✿ Woman may be self conscious about breast milk leaking
- ✿ Tender breasts may decrease sexual pleasure
- ✿ Effectiveness after 6 months is markedly reduced; return to fertility can precede menstruation
- ✿ Frequent breastfeeding may be inconvenient or perceived as inconvenient
- ✿ No protection against STIs and HIV/ AIDS
- ✿ If the mother is HIV+, there is a 14%- 29% chance that HIV will be passed to infant via breast milk. Antiretroviral therapy decreases risk of transmission
- ✿ Sore nipples, breast engorgement and risk of mastitis are associated with breastfeeding

## Who can use

- ✿ Amenorrhoeic women less than 6 months postpartum who breast-feed their babies exclusively
- ✿ Women free of a blood born infection, which could be passed to the newborn
- ✿ Women not on drugs which can adversely affect their babies
- ✿ Adolescents and working mothers may find this method difficult

## Procedure

- ✿ Clarify that the client wishes to use the breastfeeding as her contraceptive method
- ✿ Explain how breastfeeding works to prevent pregnancy
- ✿ Explain other available methods. Ask her questions about her present breastfeeding practice
- ✿ Ask the patient the questions below. If she answers "NO" to ALL questions, she can use LAM. If she answers Yes to any questions, follow the instruction. Sometime there is a way to incorporate LAM into her contraceptive plans, in other situation, LAM is contraindicated.



1. *Is your baby 6 months old or older?*

No/Yes. Help her choose another method to supplement the contraceptive effect of LAM

2. *Has your menstrual period returned? (Bleeding in the first 6 weeks after childbirth does not count)*

No/Yes. After 6 weeks postpartum, if a woman has 2 straight days of menstrual bleeding, or her menstrual period has returned, she can no longer count on LAM as her contraceptive. Help her choose another method.

3. *Have you begun to breastfeed less often? Do you regularly give the baby other food or liquid (other than water)*

No/ Yes. If the baby's feeding pattern has just changed, explain that patient must be nearly or fully breastfeeding around the clock to protect against pregnancy if not, she cannot use LAM effectively. Help her choose another method.

4. *Has a health-care provider told you not to breastfeed your baby?*

No/Yes. If a client is not breastfeeding, she cannot use LAM. Help her choose another method. A woman should not breastfeed if she is taking mood-altering recreational drugs, reserpine, ergotamine, antimetabolites, cyclosporine, bromocriptine, tetracycline, radioactive drugs, lithium, or certain anticoagulants (heparin and coumarin are safe); if her baby has a specific infant metabolic disorder, or possibly if she carries viral hepatitis or is HIV positive. All others can and should consider breastfeeding for the health benefits to the infant. In 1997, the FDA advised the manufacturer of Prozac (fluoxetine) to revise its labelling; it now states that "nursing while on Prozac is not recommended". On the other hand, Briggs notes that "the authors of a 1995 review stated that they encouraged women to continue breastfeeding while taking the drug" {Nulman Tetralogy – 1996} (Briggs – 1998). This was also the conclusion of a 1999 review of the benefits of SSRIs for depressed breastfeeding women (Edwards – 1999).

5. *Are you HIV positive, the virus that causes AIDS?*

No/Yes. HIV may be passed to the baby in breast milk. When there is an alternative safe, affordable and sustainable food for the baby, advise her to feed her baby with that and help her choose a birth control method other than LAM. A meta-analysis of published prospective trials estimated the risk of transmission of HIV with breast-feeding at 14% if the mother was infected prenatally but is 29% if the woman has her primary infection in the postpartum period. When replacement feeding is not affordable, safe and sustainable, HIV positive mothers should be advised to breastfeed exclusively. Avoid mixed feeding.

6. *Do you intend to breastfeed exclusively for less than 6 months?*

No/Yes. The recommended duration of exclusive breastfeeding is approximately 6 months. Often breastfeeding women do not know when their menstruation will return, when they will

start supplementing breastfeeding with other foods or exactly when they will stop breastfeeding their infant. It is wise to provide a woman with the contraceptive she will use when the answer to one of the above questions becomes positive and with a backup contraceptive and ECPs even during the period when breast-feeding is effective.

### **Initiating Method**

- ✿ Client should start exclusive breastfeeding immediately after delivery
- ✿ Ensure that the woman is breastfeeding fully or almost fully (>90% of baby's feedings); feedings should be around the clock
- ✿ Encourage use of back up method of contraception if any questions about LAM effectiveness

### **Instructions to client**

#### **Give instructions to client as follows**

- ✿ Breastfeed exclusively for the first 6 months
- ✿ Breastfeed as often as the child demands
- ✿ Refrain from giving a pacifier (dummy)
- ✿ Allow long time on the breast each time (at least 15 minutes on each breast)
- ✿ Breastfeed both in the day (at least 8 times) and during the night (at least twice)
- ✿ Give no other food, drink or water before 6 months of age
- ✿ Use another method of contraception, if for any reason the milk begins to fail or breastfeeding is interrupted or irregular
- ✿ Return to the clinic if breastfeeding pattern changes or menstruation resumes. (Another method will be needed, counsel and provide accordingly)

Note: This method can be effective for women whose infants are less than 6 months old, and who follow instructions strictly. After 6 months, effectiveness is not certain.

### **Cycle Beads Method**

Also called a standard day method, this is a natural Family Planning Method. It is based on the knowledge that the menstrual cycle is made up of a fertile phase preceded and followed by infertile days. The cycle beads helps users of the SDM to identify the fertile and infertile days of their cycle and also monitors cycle length. Based on physiological evidence that a woman's fertile phase starts five days before ovulation and lasts through the day of ovulation, the SDM allows women with cycles 26 to 32 days long to prevent pregnancy by avoiding unprotected intercourse during their fertile window—days 8 through 19 of their menstrual cycle. The couple uses cycle beads, a colour-coded string of beads that indicates fertile and non-fertile days of a cycle, as a memory aid.



Cycle beads has 32 beads, each bead represents a day of the menstrual cycle. The red bead represent first day of menstruation and of the cycle and white beads represent days when a woman can get pregnant

### **Who can use cycle Beads**

- ⊗ Women who usually have cycles between 26 and 32 days long
- ⊗ Couples who can avoid unprotected sex during the woman's fertile days

### **Who cannot use Cycle Beads**

- ⊗ Women who have irregular menstrual cycles
- ⊗ Couple who cannot avoid unprotected sex during fertile days

### **How to use Cycle Beads**

Move the black ring onto the red bead the first day she starts her period or menstruation. She moves the ring to the next bead the next day and continues to move the ring one bead per day throughout. When the beads are on any of the brown beads pregnancy is not likely to occur. When the ring is on any of the white beads pregnancy is likely to occur if she has unprotected sex.

If she gets her period more than once before she gets to the dark brown bead within a year, the method may not be very effective for her. If she doesn't see her period before she gets to the last brown beads more than once within a year, the method may not be very effective for her.

### **Effectiveness**

Cycle beads method is 95% effective with perfect use.

### **Summary**

Fertility Awareness based Methods of family planning depends on identifying days of the menstrual cycle when intercourse is most likely to result in a pregnancy. Accurate identification of potentially fertile days is a skill that requires a woman to apply knowledge about fertility to herself.

## Evaluation

- ✿ List the various Natural Family Planning Methods
- ✿ Describe the various methods of determining fertile days of the menstrual cycle.
- ✿ Describe the procedure for initiating LAM as a method of contraception.
- ✿ List the advantages of LAM.
- ✿ Describe use of Standard Days Method

**Time**

2 Hours

**Learners' Objectives**

By the end of the session, participants will be able to:

- ✿ Describe the types and characteristics of barrier methods of family planning
- ✿ Screen clients appropriately for use of these methods
- ✿ Demonstrate appropriate method of use for each barrier contraceptive
- ✿ Identify and manage side effects of barrier methods

**Session overview**

- ✿ Types
- ✿ Effectiveness
- ✿ Mechanism of action
- ✿ Specific counselling issues
- ✿ Equipment and materials
- ✿ Procedure
- ✿ Instructions to clients
- ✿ Follow-up and problem management

**Methods**

- ✿ Illustrated lecture
- ✿ Discussion
- ✿ Demonstration / return demonstration
- ✿ Brainstorming

**Materials**

- ✿ Flip chart and markers
- ✿ Writing board and chalk or markers
- ✿ Multimedia projector
- ✿ Models- pelvic, penile
- ✿ Samples of the commodities

**Content**

## Barrier Methods

### Description

Barrier methods prevent spermatozoa from entering the womb either by chemical action e.g. spermicides or mechanical obstruction e.g. condoms and diaphragms

### Objectives

- ✿ To provide the client with information on barrier methods available.
- ✿ To assist the client choose an appropriate barrier method
- ✿ To assist the client to effectively use the chosen method.
- ✿ To identify and manage side effects of barrier methods.

### Types

Two common barrier methods are

- ✿ **Chemical:** prevents spermatozoa from entering the womb by killing or immobilizing the sperm.
- ✿ **Mechanical:** keeps sperms from entering the womb by physical obstruction e.g. condoms and diaphragms.

## Chemical Barrier Methods

### Spermicides

Spermicides are chemicals placed in the vagina to immobilize or destroy sperms. They can be used alone or in combination with mechanical barriers such as condoms and diaphragms.

Spermicides are available in the following forms:

- ✿ Creams
- ✿ Jellies
- ✿ Aerosol foam
- ✿ Vaginal foaming tablets
- ✿ Vaginal suppositories
- ✿ Vaginal film
- ✿ Vaginal sponge

### Effectiveness

With common use, there could be 29 pregnancies per 100 women using spermicides over the first year. With perfect use, the failure rate is 18 pregnancies per 100 women in one year.

## Mechanism

As barriers, the vehicles prevent sperm from entering the Cervical OS. As detergents, the chemicals attack the sperm flagella and body, reducing mobility, and disrupting their fructolytic activity, jeopardizing nourishment

## Specific Counselling Issues

### Advantages

- ✿ No prescription is required
- ✿ Can be used ahead of intercourse to avoid interruption
- ✿ Very few side effects
- ✿ Protects against some sexually transmitted infections but those with nonoxynol-9 do not.
- ✿ Reasonably cheap
- ✿ Used only when needed
- ✿ Has no effect on breast milk
- ✿ Gives no systemic effects
- ✿ Can be provided by non-medical personnel
- ✿ Convenient to use

### Disadvantages

- ✿ Not acceptable to those who are opposed to touching their genitalia
- ✿ May produce burning sensation in client or partner
- ✿ Can be difficult to hide from partner
- ✿ Can be messy
- ✿ Some may melt in hot weather
- ✿ Interrupts sex if not inserted before hand
- ✿ May irritate client or partner
- ✿ May increase risk of HIV transmission.

### Women who can use Spermicides are those who

- ✿ Do not want to use systemic or other forms of contraceptives.
- ✿ Other methods are not suitable for
- ✿ Have intercourse infrequently
- ✿ Need to enhance the effectiveness of the diaphragm and condom
- ✿ Fear that other methods may interfere with successful lactation
- ✿ Require back-up (as in missed pills or failed withdrawal)
- ✿ Are inaccessible to medical personnel to initiate other clinical methods
- ✿ Need to delay first pregnancy

### Women who cannot use spermicides are those with:

- ✿ Allergy to ingredients of the spermicides
- ✿ Cervical or vaginal lesions.

- ⊗ High risk for HIV
- ⊗ Need for highly effective method

### **Equipment and Materials**

- ⊗ Couch
- ⊗ Gloves
- ⊗ Speculum
- ⊗ Spermicides (suppositories, tablets, aerosol, foam)
- ⊗ Appropriate instruction leaflets

### **Procedure**

#### **Client preparation**

- ⊗ Do a physical and pelvic examination to rule out any pelvic pathology
- ⊗ Instruct client about the use of spermicides

#### **Instructions to client on use**

Emphasize the following to the client for all types

- ⊗ Use method with each act of intercourse
- ⊗ Use indicated amount of spermicide
- ⊗ Place spermicide high in the vagina to cover cervical os
- ⊗ Read and follow instructions for specific methods regarding:
  - Time required after placement prior to intercourse
  - Duration of effectiveness
- ⊗ Do not douche for at least 6 hours after intercourse

#### **Aerosol Form**

- ⊗ Use the aerosol foam for every act of intercourse
- ⊗ Where applicator is pre-loaded, insert the applicator deep into the vagina as far as possible. Withdraw it slightly, and then depress plunger to deposit the foam
- ⊗ If the foam is in a separate container, shake the can vigorously (about 10 times) and then fill the applicator to the recommended mark as indicated on the package
- ⊗ Insert the foam applicator as deeply as possible into the vagina and depress the plunger to deposit the foam in the posterior fornix and over the cervix
- ⊗ Use additional full application of foam before each subsequent act of intercourse
- ⊗ Remove the applicator carefully and wash it for re-use
- ⊗ To clean applicator, pull plunger from barrel and wash with soap and warm (not hot) water

#### **Foaming Tablets and Vaginal Suppositories**

- ⊗ Use the tablets or suppositories for every act of intercourse
- ⊗ Take foaming tablet or suppository between the index and middle finger



- ⊗ Part the labia with the fingers of the other hand and insert the fingers holding the tablet /suppository into the vagina
- ⊗ Withdraw the middle finger and with the index finger push the tablet/suppository deep into the vagina and up to the top of the vagina.
- ⊗ Wait for 5-10 minutes for the tablet and (10-20 minutes for suppository) to dissolve before commencing intercourse
- ⊗ If intercourse is to be repeated, insert another tablet/suppository
- ⊗ If more than 30 minutes elapse before intercourse, insert another dose of tablet or suppository
- ⊗ Intercourse can then take place immediately after insertion

Note: Supply spermicides as per clinic routine

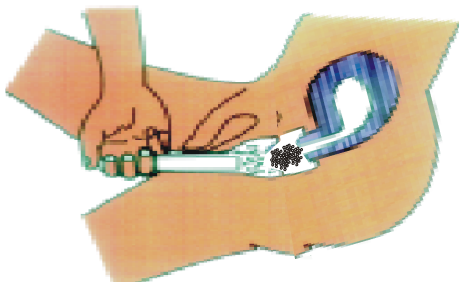
### **Vaginal Creams and Jellies**

These are commonly used in combination with diaphragms or condoms. When they are used as sole contraceptive, instruct client as follows:

- ⊗ Screw applicator onto the can containing jelly or cream with the plunger pulled right up
- ⊗ Squeeze cream/jelly into the applicator until the barrel of applicator is filled.
- ⊗ Detach applicator from the can
- ⊗ Insert applicator into vagina (as for aerosol foam) and depress the plunger to deposit the cream/jelly into the posterior fornix
- ⊗ Withdraw the applicator carefully
- ⊗ Commence sexual intercourse almost immediately as the jelly/cream disperses quickly
- ⊗ Use additional applicator of jelly/cream before each subsequent act of intercourse
- ⊗ Clean and wash applicator and plunger as instructed under foam

### **Post Prescription Instructions**

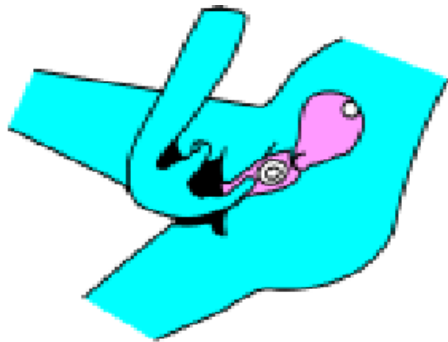
Ask client to return to the clinic for re-supply of spermicides and/or when she has any problems with the method



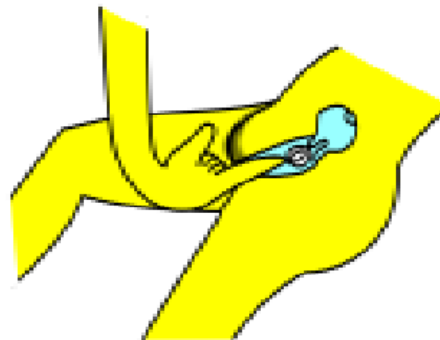
**How to Use Foam/Jelly/Cream**



**How to Use Tablets and  
Vaginal Suppositories**



**How to Use Tablets and  
Vaginal Suppositories**



**How to Use Tablets and  
Vaginal Suppositories**

## Mechanical Barrier Method

### The Diaphragm

The diaphragm is a dome - shaped rubber cup with a flexible rim. It is inserted into the vagina before intercourse so that the posterior rim rests in the posterior fornix and anterior rim fits snugly behind the pubic bone. The dome of the diaphragm covers the cervix. It is best used with a spermicidal cream, which is poured inside the dome so that it is in contact with the cervix when the diaphragm is in place.

### Types

Diaphragms differ according to rim types and come in different sizes (diameters from 50mm to 105mm). There are four types available:

- ✿ Arcing spring
- ✿ Flat spring
- ✿ Coil spring
- ✿ Wide seal rim

### Effectiveness

With common use, about 16 pregnancies occur per 100 women using the diaphragm with spermicides over the first year. Failure rate is 6% with perfect use.

### Mechanism

Acts as a mechanical barrier to sperm migration and in addition the spermicide applied to its inner surface before insertion helps to destroy sperm cells.

### Specific Counselling Issues

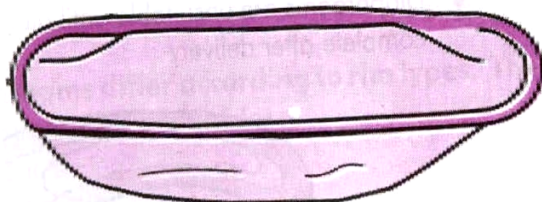
#### Advantages

- ✿ Can be worn by client without discomfort
- ✿ Protects client against some sexually transmitted infections
- ✿ May be fitted at anytime (post-partum mothers must wait for 6-12 weeks after delivery or mid-trimester abortion).
- ✿ Has no systemic effect.
- ✿ Can be inserted up to 6 hours before sex to avoid interruption
- ✿ Reduces the risk of cervical cancer.
- ✿ Controlled by the woman.

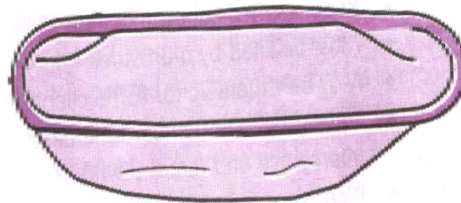
## Disadvantages

- ⊗ Not readily available in Nigeria
- ⊗ Requires medical examination
- ⊗ Initial fitting must be by a provider
- ⊗ May be expensive for some clients
- ⊗ Client has to remember to fit diaphragm before intercourse and remove 6 hours after.
- ⊗ Needs special care and storage.
- ⊗ Could cause urinary tract infection.
- ⊗ A different size may be required after childbirth
- ⊗ Can be damaged by excessive use or poor storage
- ⊗ Diaphragms are unsuitable until uterine involution is complete after delivery
- ⊗ May reduce spontaneity of sex

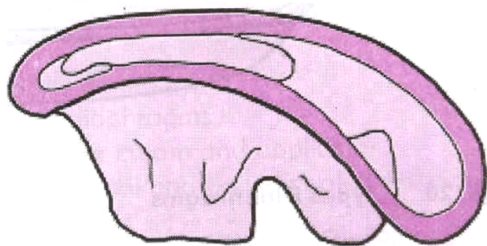
### Types of diaphragm



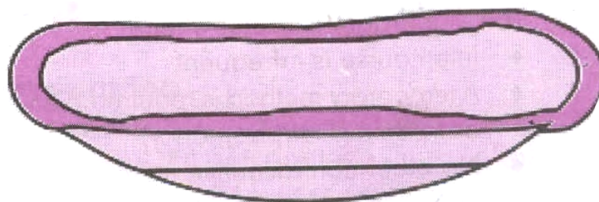
Wide Spring



Coil Spring



Arcing Spring



Flat Spring

## **Women who can use**

### **The diaphragm is useful when**

- ⊗ Intercourse is infrequent
- ⊗ A temporary method is required (between pregnancies or to delay first pregnancy)
- ⊗ No other contraceptive methods are available or acceptable to client.
- ⊗ Other contraceptive are contraindicated
- ⊗ The woman's choice is diaphragm in the absence of contraindications

## **Women who cannot use**

It is not advisable to use the diaphragm when:

- ⊗ There is history of allergy or sensitivity to rubber or spermicide
- ⊗ There is history of repeated urinary tract infection (cystitis, urethritis).
- ⊗ There are such abnormalities as cystocoele, rectocoele, uterine prolapse, retroversion of the uterus, vaginal fistula or septum
- ⊗ There is lack of privacy for insertion or lack of facilities (soap, water) for taking proper care of the diaphragm.

## **Equipment and Materials**

- ⊗ Couch
- ⊗ Gloves
- ⊗ Pelvic model
- ⊗ Various sizes of fitting rings
- ⊗ Various sizes of diaphragms
- ⊗ Spermicidal jelly or cream and applicator
- ⊗ Bowls of 75% alcohol and boiled cooled water for sterilisation.
- ⊗ Bowl of disinfectant for used fitting rings
- ⊗ Boiled cooled water for sterilisation

## **Procedure**

### **Client Preparation**

- ⊗ Show the diaphragm to the client and describe pointing out the rim and dome
- ⊗ Using a pelvic model, insert a diaphragm to demonstrate the relationship with other pelvic organs especially the cervix, when in place
- ⊗ Ask the client to empty her bladder

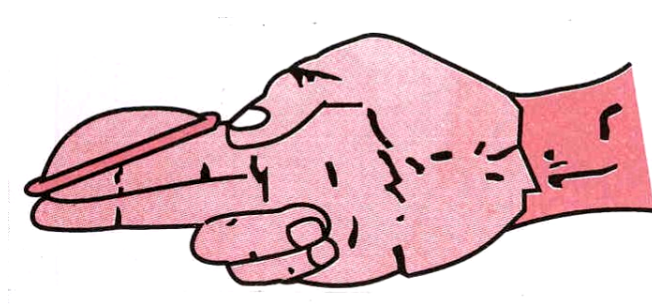
### **Determining the right size of diaphragm**

- ⊗ Make her lie down on her back, flex and abduct the legs
- ⊗ Carry out a vaginal examination to rule out any contraindications

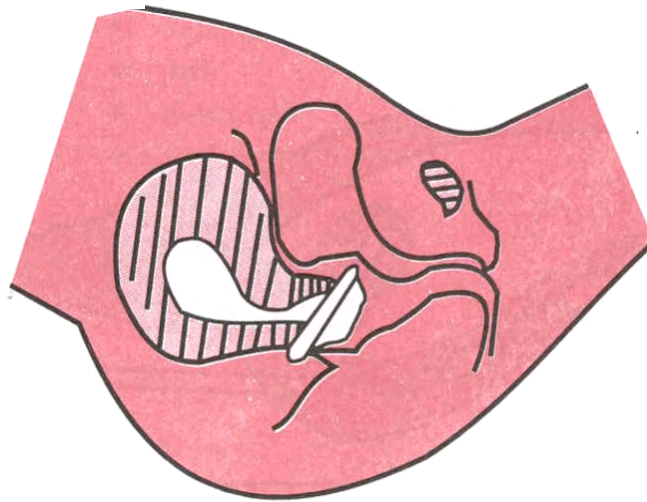
- ☼ To determine the size of diaphragm to be fitted
  - Insert the index and middle fingers into the vagina until the posterior fornix is reached
  - With your right thumb or left finger, mark the point of the index finger now lying under the pubic bone. The distance from this mark to the tip of the middle finger is the diameter of the size of diaphragm suitable for the client. (To be more accurate, ensure that the diameter of the diaphragm to be fitted matches the measurement on the fingers.
  - Since the vagina expands during sexual intercourse it is important to add 5mm to measured size

### **Fitting the Diaphragm**

- ☼ With one hand, hold the diaphragm dome down and squeeze 5ml (one Teaspoonful) of spermicidal cream or jelly into the dome. Also smear cream/jelly around rim and outer part
- ☼ Fold the diaphragm by pressing the opposite sides of the rim together
- ☼ Part the opening of the vagina with the other hand and insert the folded diaphragm into the vaginal canal and push it downward and backward along posterior wall of the vagina as far as it can go
- ☼ Then tuck the front rim of the diaphragm under the pubic bone up onto the roof of the vagina
- ☼ Feel round the rim of the diaphragm to ensure that the finger cannot be slipped easily between it and the vaginal wall
- ☼ Ask client to repeat the procedure until you are satisfied she can fit the diaphragm satisfactorily
- ☼ Supply client with diaphragm, spermicide and applicator
- ☼ Give follow-up appointment (one week) and ask client to come with the diaphragm fitted at home



Determining Correct Size of Diaphragm



Proper placement of Diaphragm

### Post Prescription Instructions

Before the client leaves the clinic give clear instruction as follows

- ✿ Insert diaphragm before initial act of intercourse
- ✿ Diaphragm may be inserted immediately before or several hours before intercourse. (However if intercourse does not take place within 2 hours, apply additional spermicide into the vagina without removing the diaphragm)
- ✿ Cover diaphragm with spermicide and place about one teaspoonful in the dome of the diaphragm before insertion
- ✿ Always check for proper placement (cervix should be felt at the centre of diaphragm and posterior rim should not be felt)
- ✿ Leave diaphragm in place for 6 hours after the act of intercourse
- ✿ Use additional spermicide with each subsequent act of intercourse without removing diaphragm
- ✿ After removal, wash with clean water and unscented soap, dry, dust with unscented powder (cornstarch is best) and put it back in its container.
- ✿ Check for holes by filling with water or holding up to the light
- ✿ Keep diaphragm away from areas of intense heat
- ✿ Have diaphragm size rechecked every year and after delivery, abortion, pelvic operation or noticeable weight loss or gain
- ✿ Do not use any lubricants like Vaseline or other petroleum product other than prescribed spermicide
- ✿ Return to clinic if the following occur
  - sudden fever
  - fainting
  - rash
  - diarrhoea
  - sore throat

## Follow-up

- ✿ Find out from client what problems she has had, since her first visit
- ✿ Request the client to insert the diaphragm if not already inserted
- ✿ Examine the client to ensure proper placement of diaphragm
- ✿ Ask client to re-visit the clinic
  - For re-supply of spermicides
  - Whenever she has problems
  - Yearly as a routine for
    - physical examination
    - ensuring proper fit of diaphragm
    - collection of a new one if indicated
    - Pap smear



## Managing Problems associated with use of the Diaphragm

The client should report to the clinic if she has any of the following complaints:

Complaint	Management
Vaginal/vulval irritation with abnormal vaginal discharge	<p><i>History</i></p> <ul style="list-style-type: none"> <li>Ask client the quantity, colour, and odor of discharge</li> <li>Is the discharge thick or watery and foamy?</li> </ul> <p><i>Examination</i></p> <ul style="list-style-type: none"> <li>Take a high vaginal and cervical swab for microscopy, culture and sensitivity</li> <li>Treat for any organisms isolated</li> <li>Advise client on another contraceptive method</li> </ul> <p><i>If discharge is white and thick like pap, the cause is likely to be yeast infection:</i></p> <ul style="list-style-type: none"> <li>Give clotrimazole (canesten) pessaries to be applied high up in the vagina twice daily for 6 days or Gyno-Trosyd, or twice daily for 3–4 days</li> <li>Advise client on how to wash and dry diaphragm before storage</li> <li>Ask client to return for follow-up in three days and for culture report, if HVS was taken</li> </ul> <p><i>If discharge is watery/frothy, copious and creamy in colour with or without odour, the cause is likely to be Trichomonas vaginitis:</i></p> <ul style="list-style-type: none"> <li>Give metronidazole (Flagyl) tablets 200 mg tds x 7 days and doxycycline caps 100 mg twice daily for 10 days</li> <li>Treat partner(s)</li> <li>Advise client on how to wash and dry diaphragm before storage</li> <li>Ask client to return for follow-up in three days and for culture report if HVS was taken</li> </ul>
Frequent urination and/or burning sensation during urination	<ul style="list-style-type: none"> <li>Send midstream urine for bacteriological examination and treat</li> <li>In the absence of laboratory facilities, treat urinary tract infection with: Septrin 960 mg (2 tabs) b.d. x 5–7 days or Nitrofurantoin 100mg t.d.s x 5-7 days</li> <li>Encourage liberal fluid intake</li> <li>Review size of diaphragm. In case infection recurs, consider refitting with a smaller diaphragm</li> <li>Ask client to return for follow-up in two weeks and review the complaints</li> <li>Encourage to urinate after sexual intercourse</li> <li>Treat partner(s)</li> </ul>

## Condoms

Condoms are mechanical barriers to the passage of sperms between genital tracts of sexual partners. They are divided into two types - male and female condoms.

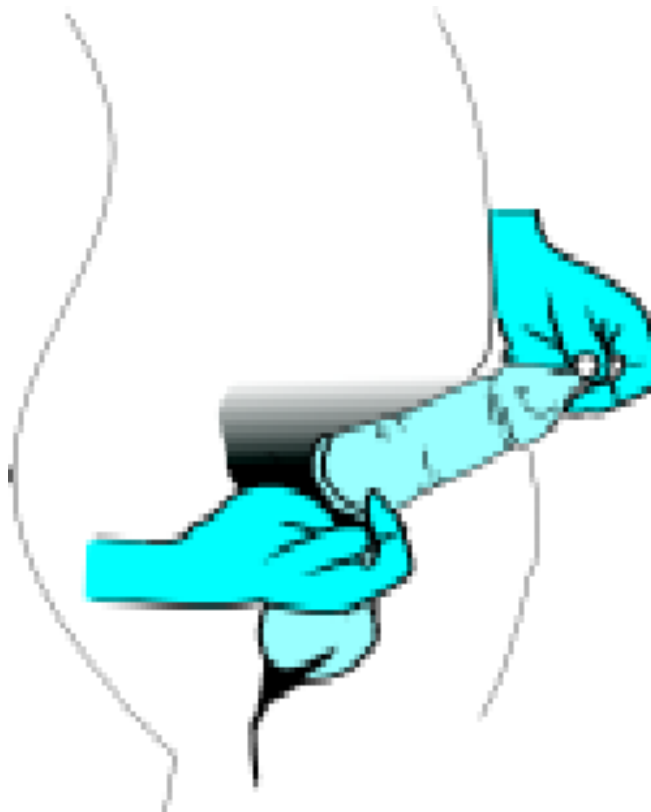
### The Male Condom

The male condom is a thin latex rubber sheath that is worn over the erect penis before penetration. It acts as a barrier preventing semen from entering the vagina.

#### Types

There are three types of male condoms, differing mainly in the material used

- ⊗ Latex rubber condom – most common
- ⊗ Condoms made from natural tissues
- ⊗ Condoms made from synthetic materials (soft plastic)



Correct placement of condom

## **Effectiveness**

With common use, about 15 pregnancies per 100 women whose partners use male condoms over the first year can occur. With perfect use failure rate is 2%.

## **Mechanism**

Act as a mechanical barrier, preventing pregnancy and reducing transmission of STIs, including HIV.

## **Specific counselling issues**

### **Advantages**

- ✿ No medical prescription is required
- ✿ Widely available
- ✿ Very few side effects
- ✿ Protects against some sexually transmitted infections including HIV/AIDS
- ✿ Relatively cheap
- ✿ Offers dual protection
- ✿ Promotes partner's participation
- ✿ May promote foreplay in some couples

### **Disadvantages**

- ✿ Decreases sexual enjoyment for some couples
- ✿ A new condom must be used with each act of intercourse
- ✿ Interrupts foreplay
- ✿ Deteriorates if not properly stored
- ✿ It may burst, or slide off a flaccid penis during withdrawal
- ✿ Requires partner participation

## **Men who can use the male condom**

In general, anyone can use condoms if they are not allergic to latex. Condoms are particularly useful when:

- ✿ Non-prescription-type contraceptive is desired
- ✿ A temporary contraceptive method is required between pregnancies or before a first pregnancy
- ✿ The male wants to share in the contraceptive responsibility
- ✿ No other contraceptive methods are available or acceptable to the couple
- ✿ There are contraindications to the use of the IUD and the hormonal contraceptive in the partner on medical grounds
- ✿ Multiple sexual partners are involved
- ✿ Used as back up for some other methods
- ✿ Protection against STIs/HIV is required

## **Men who cannot use the male condom**

Condoms are not useful to men who are:

- ✿ Allergic to latex (rubber): extremely rare

- ✿ unable to sustain erection

## Equipment and Materials

- ✿ Packet of condoms
- ✿ Contraceptive cream or jelly
- ✿ Wooden or plastic model of an erect penis
- ✿ Instructional pamphlet on use of condoms

## Client Preparation

Demonstrate proper use of the condom

- ✿ Carefully open the packet by tearing it at the designated point to avoid damaging the condom. Do not open with the teeth or sharp fingernails
- ✿ Pinch the nipple end as you unroll the condom over a model (wooden/plastic) penis, leaving a small space at the tip if there is no nipple
- ✿ Supply condoms and spermicide as per clinic routine

## Post Prescription Instructions

Instruct the client clearly as follows

- ✿ Condom should be worn over the erect penis
- ✿ Always keep a supply of condoms at hand, preferably in a cool, dry place away from bright light but within easy reach for use at every intercourse.
- ✿ Do not test a condom by inflating or stretching it. Handle gently and keep away from sharp fingernails
- ✿ Put condoms on before any genital contact
- ✿ If the condom has no teat, leave about 1.5cm of the condom free at the tip
- ✿ If necessary, lubricate the outside of the condom using contraceptive jelly or any water-soluble lubricant (Do not use Vaseline or other petroleum products as lubricant).
- ✿ After ejaculation, while the penis is still erect, hold the rim of the condom firmly against the base of the penis during withdrawal
- ✿ Remove condom, taking care not to spill semen on the vulvae
- ✿ Discard the condom after use
- ✿ Use a new condom for every subsequent intercourse
- ✿ If the condom is found to be torn after intercourse, the female partner should insert contraceptive foam, jelly or suppository immediately and obtain emergency contraception and use immediately
- ✿ Throw the condom away in a pit latrine, burn it or bury it. Do not flush it down the toilet as it may cause a blockage.
- ✿ Do not leave it where children may find and play with it

## Follow-up

Client should come back to the clinic for re-supply of condoms as necessary

## Managing Problems Associated with Condom use

Complaint	Management
Recurrent irritation of the vagina or penis	<ul style="list-style-type: none"><li>☼ Suggest trying another brand of condoms</li><li>☼ Suggest putting extra lubricant to reduce rubbing or using water instead of spermicide (irritation may be due to spermicide and not condom itself)</li><li>☼ If client is not at risk of STIs, help to choose another method of contraception</li><li>☼ If client is at risk of STI, suggest using female condoms or plastic male condoms, if available. If not available, encourage continued use of latex condom unless allergy is severe.</li><li>☼ If allergy is severe, discontinue use of condom and use another method of contraception</li></ul>
Condom breaks during intercourse	<ul style="list-style-type: none"><li>☼ Return to clinic, consider emergency contraception</li></ul>

## The Female Condom

### Description

The female condom is a sheath of soft polyurethane that is inserted into the vagina before genital contact. It has two flexible rings – a removable ring at the closed end to aid insertion, and a fixed ring at the open end that sits on the vulva to hold the condom in place



## **The Female Condom**

### **Effectiveness**

With common use, 21 pregnancies occur per 100 women years and 5 pregnancies per 100 women years with perfect use.

### **Mechanism**

Acts as a mechanical barrier, preventing pregnancy and reducing the transmission of STIs

### **Specific Counselling Issues**

#### **Advantages**

The advantages are as for the male condom but with the following addition:

- ⊗ Usage is controlled by the woman and needs only to be used when required

#### **Disadvantages**

- ⊗ Use may be associated with excessive (unpleasant) noise during intercourse
- ⊗ The penis needs to be guided to avoid passing outside the outer ring
- ⊗ It is relatively expensive
- ⊗ Presently, supply is limited in Nigeria
- ⊗ Application involves the woman touching her genitals
- ⊗ Condom have to be held in place during penetration

### **Women who can use the female condom**

In general, anyone can use condoms if they are not allergic to polyurethane.

#### **Condoms are particularly useful when:**

- ⊗ Sexual intercourse is infrequent
- ⊗ Non-prescription-type contraceptive is desired
- ⊗ A temporary contraceptive method is required between pregnancies or before a first pregnancy
- ⊗ No other contraceptive methods are available or acceptable to the couple
- ⊗ There are contraindications to the use of the IUD and the hormonal contraceptive
- ⊗ Client has multiple sexual partners
- ⊗ Used as back up for some other methods

## Women who cannot use the female condom

Women with:

- ✿ Genital prolapse
- ✿ Vaginal abnormalities e.g. septa, atresia/stenosis

## Equipment and Materials

- ✿ Female condom
- ✿ Spermicide
- ✿ Pelvic model
- ✿ Penile model
- ✿ Instructional leaflet on female condom

## Procedure

Demonstrate proper use of the female condom as follows

- ✿ Condom can be inserted anytime before sex
- ✿ Confirm integrity of the packet
- ✿ Spread the lubricant evenly by rubbing the sides of the condom together
- ✿ Carefully open the packet by tearing it at the designated point to avoid damaging the condom
- ✿ Stand with legs astride or squat or lie down
- ✿ Squeeze the inner ring of the condom between the thumb, index and middle fingers
- ✿ With the other hand, separate the labia
- ✿ Insert the squeezed ring into the vagina and push in the rest of the condom until the inner ring reaches the end of the vagina, with the index or middle finger
- ✿ Gently curve the finger towards the front of the vagina to feel the pubic bone, indicating that the condom has been inserted correctly
- ✿ The larger flexible ring is smoothened over the vulvae to ensure the penis goes into the shield and not alongside it.
- ✿ The penis does not have to be withdrawn immediately after ejaculation
- ✿ To remove the condom, hold onto the outer ring and twist it so that the semen does not spill out
- ✿ Gently pull and slide the condom out of the vagina
- ✿ Do not reuse the condom

## Post Prescription Instruction

The client should be instructed as follows

- ✿ Do not test the condom by stretching it
- ✿ Put condom on before any genital contact
- ✿ Discard each condom after use
- ✿ Use a new condom for each act of intercourse

- ☼ Throw the condom away in a pit latrine, burn it or bury it. Do not flush it down the toilet as it may cause a blockage
- ☼ Do not leave it where children may find and play with it

### **Follow-up**

Client should return for re-supply of the condoms as necessary

### **Complaints and Management**

Same as for male condom

## **Summary**

Barrier methods of contraception have many advantages which make them reasonable for both long-term and short term contraception. Apart from the issue of STIs protection, the overall medical safety of these methods is appreciated as it does not cause systemic side effects nor alter a woman's hormone patterns. The emergence of the female condom offers the woman some control over her fertility and infection prevention.

## **Evaluation**

- ☼ List available barrier methods of contraception.
- ☼ Describe the process of wearing the male and female condom correctly for pregnancy prevention.



## MODULE 5 SESSION 4: MEDICAL ELIGIBILITY CRITERIA (MEC)

### How to select contraceptive method using WHO Medical Eligibility Criteria

Medical eligibility criteria for each contraceptive method, with the exception of female and male surgical sterilization, were

Classified using four (4) categories:

1. A condition for which there is no restriction for the use of the contraceptive method
2. A condition where the advantages of using the method generally outweighs the theoretical or proven risks
3. A condition where the theoretical or proven risks usually outweigh the advantages of using the method.
4. A condition which represents an unacceptable health risk if the contraceptive method is used

Category	Description	When clinical judgment is available
1	No restriction to use	Use the method under any circumstance
2	Benefit generally outweigh risk	Generally use the method
3	Risk generally outweigh benefit	Use of the method not usually recommended except if other methods are unavailable/unacceptable
4	Unacceptable Health risk	Method not to be used

Categories for Temporary Methods		
Category	With clinical judgment	With limited clinical judgment
1	Use method in any circumstances	Yes (Use the method)
2	Generally use method	
3	Use of method not usually recommended unless other more appropriate methods are not available or not acceptable	No (Do not use the method)
4	Method not to be used	

**Recommendation for surgical sterilization are defined according to the following four categories**

A (accept)	=	There is no medical reason to deny sterilization to a person with this condition
C (caution)	=	The procedure is normally conducted in a routine setting, but with extra preparation and precautions
D (delay)	=	The procedure is delayed until the condition is evaluated and/or corrected. Alternative temporary methods of contraception should be provided
S (special)	=	The procedure should be undertaken in a setting with an experienced surgeon and staff, equipment needed to provide general anaesthesia and to back-up medical support. For these conditions the capacity to decide on the most appropriate procedure and anaesthesia regimen is also needed. Alternative temporary method of contraception should be provided, if referral is required or there is otherwise any delay

## MODULE 5 SESSION 5: HORMONAL CONTRACEPTIVES

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### Time

2 Hours

### Learners' Objectives

By the end of the session, participants will be able to

- ✿ Describe the types and characteristics of hormonal contraceptives
- ✿ Screen clients appropriately for the use of hormonal family planning methods
- ✿ Instruct clients on correct use of hormonal contraceptives
- ✿ Respond to client's concern about hormonal contraceptives
- ✿ Identify and manage side effects and complications of hormonal family planning methods.

### Session Overview

- ✿ Types
- ✿ Effectiveness
- ✿ Mechanism of action
- ✿ Specific counselling issues
- ✿ Equipment and materials
- ✿ Procedure
- ✿ Instructions to clients
- ✿ Follow-up and problem management

### Methods

- ✿ Illustrated lecture
- ✿ Discussion
- ✿ Brainstorming
- ✿ Demonstration and return demonstration

### Materials

- ✿ Flip chart and markers
- ✿ Multimedia projector
- ✿ Writing board and chalk or markers
- ✿ Samples of commodities
- ✿ Arm model

## Content

### Oral Contraceptive Pills

Oral contraceptives are synthetic female hormones, estrogen and progesterone, taken singly or in combination by women in order to prevent pregnancy.

#### Types

- ⊗ Combined Oral Contraceptives (COCs) contains both oestrogen and progestin:
- ⊗ Low dose COC (those containing 0.03 m of oestrogen) are commonly used for ongoing contraception
- ⊗ High dose COCs (those containing 0.05) are used mostly for emergency contraception
- ⊗ Progestin-only pills (minipills) (POPs)
- ⊗ Emergency contraceptive pills (ECPs)

### Combined Pills

#### Effectiveness

When commonly used, about eight pregnancies occur per 100 women using combined oral contraceptives over the first year. When there are no pill-taking mistakes, less than one pregnancy occurs per 100 women using combined oral contraceptives over the first year (3 per 1,000).

#### Mechanism

It suppresses ovulation (90 to 95% of time). Also causes thickening of cervical mucus, which impedes sperm penetration and entry into the upper reproductive tract. It also causes endometrial atrophy.

### Specific Counselling Issues

#### Advantages

- ⊗ Highly effective if used correctly
- ⊗ Client can discontinue independently
- ⊗ Suitable for all reproductive age groups and parity
- ⊗ Use is not related to sexual intercourse
- ⊗ Reduces menstrual pain and mid-cycle ovulation pain, where present
- ⊗ Reduces menstrual flow in heavy bleeders
- ⊗ Can prevent or decrease iron deficiency anemia
- ⊗ Regularizes menstrual period
- ⊗ Offers some protection against cancers of the endometrium, ovary and benign breast disease
- ⊗ Can be used to manipulate timing and frequency of menstruation
- ⊗ Reduces the risk of ectopic pregnancy and Pelvic
- ⊗ Inflammatory Disease (PID)

### **Disadvantages**

- ⊗ Has to be taken daily
- ⊗ May cause some minor but temporary side effects such as:
  - Mild headache
  - Nausea
  - Vomiting
  - Spotting
  - Weight gain
  - Breast tenderness
  - Mood changes
- ⊗ Does not protect against STIs and HIV/AIDS
- ⊗ Compliance is difficult for some people
- ⊗ Not recommended for breastfeeding women before six months

Note: The risks should be weighed against the risk of pregnancy.

### **Women who can use combined oral contraceptive pills without restriction (WHO Category 1)**

- ⊗ Women who are between menarche and less than 18 years
- ⊗ Nulliparous women
- ⊗ Women who have puerperal sepsis and post-abortion sepsis
- ⊗ Women with current and past pelvic inflammatory disease
- ⊗ Women with increased risk of STIs/HIV or those with current STI, including gonorrhoea and chlamydia infection, or women with vaginitis
- ⊗ HIV positive women (not on antiretroviral therapy)
- ⊗ Women who have non-migrainous headache
- ⊗ Women who have uterine fibroid
- ⊗ Women with irregular, heavy or prolonged bleeding patterns
- ⊗ Women with endometrial or ovarian cancer (awaiting treatment)
- ⊗ Women with chronic hepatitis, or those who are carriers
- ⊗ Women with mild (compensated) cirrhosis
- ⊗ Women who take broad-spectrum antibiotics, antifungal or antiparasitic medication

**Women who can generally use combined oral contraceptive pills; some follow up may be needed (WHO Category 2)**

- ⊗ Women who are 40 years and older
- ⊗ Women who are breastfeeding after 6 months postpartum
- ⊗ Women with superficial thrombophlebitis
- ⊗ Women with migraines without aura who are less than 35 years old
- ⊗ Women who have cervical cancer (pre-treatment)
- ⊗ Women with unexplained vaginal bleeding
- ⊗ Women who are less than 35 years old and smoking
- ⊗ Women who have non-vascular (uncomplicated) diabetes
- ⊗ Women with asymptomatic gall-bladder disease or those treated by cholecystectomy
- ⊗ Obese women
- ⊗ Women on antiretroviral therapy (unless their ARV regimen contains ritonavir or ritonavir-boosted protease inhibitors)
- ⊗ Women with systemic lupus erythematosus who are negative for antiphospholipid antibodies
- ⊗ Women who have liver tumour such as focal nodular hyperplasia

**Use of combined oral contraceptive pills usually not recommended in these women; (WHO Category 3)**

- ⊗ Women taking certain drugs, e.g. rifampicin/rifabutin, anticonvulsants (e.g. phenytoin, carbamazepine or lamotrigine)
- ⊗ Breastfeeding women from 6 weeks to 6 months postpartum
- ⊗ Non-breastfeeding women within the first 21 days postpartum
- ⊗ Women who are smoking <15 cigarettes/day and are above 35 years
- ⊗ Women who have blood pressure of 140–159 mmHg systolic and 90–99 mmHg diastolic
- ⊗ Women who had breast cancer in the past and no evidence of current disease for five years
- ⊗ Women with migraines without aura who are more than 35 years old
- ⊗ Women current or medically treated gall-bladder disease
- ⊗ Women who take ritonavir or ritonavir-boosted protease inhibitors as part of their ARV regimen
- ⊗ Women with undiagnosed vaginal bleeding (until evaluated and diagnosed)

**Women who should not use combined oral contraceptives pills (WHO Category 4)**

- ⊗ Women whose blood pressure is at or above 160 mmHg systolic and at or above 100 mmHg diastolic
- ⊗ Women with history of or current deep vein thrombosis (DVT) or pulmonary embolism (PE), even when established on anticoagulant therapy
- ⊗ Women who are smoking more than 15 cigarettes/day and are 35 years or older
- ⊗ Women who are having major surgery with prolonged immobilization
- ⊗ Women with stroke or ischemic heart disease, both history or current
- ⊗ Women who have migraine with aura at any age

- ⊗ Women who have any liver tumour other than focal nodular hyperplasia
- ⊗ Women with acute/flare hepatitis
- ⊗ Breastfeeding women who are within 6 weeks postpartum
- ⊗ Women with current breast cancer
- ⊗ Women with systemic lupus erythematosus who have positive or unknown antiphospholipid antibodies
- ⊗ Women with complicated diabetes or diabetes of more than 20 years duration

### **Equipment and Materials**

- ⊗ Combined pills
- ⊗ Clinic card
- ⊗ Equipment for physical examination
- ⊗ Visual aids

### **Procedure**

**When to initiate Pills:** Pills can be commenced any time during the menstrual cycle, when you are reasonably sure that a woman is not pregnant, preferably during the first 7 days of the cycle.

### **Client's preparation**

Greet and offer the client a seat

Make her comfortable and relaxed

Find out what she already knows about combined pills and fill any gaps in her knowledge

Provide full information on the pills including advantages, disadvantages and side effects

Take a thorough history

Explain the need to conduct general physical examinations and obtain client's permission

- ⊗ Conduct a complete physical examination including blood pressure measurement, pelvic examination and Pap smear (where possible) to ensure that there are no contraindications to the pills
- ⊗ Give the client 3 cycles of pills, but one month's appointment

### **Instructions for using combined oral contraceptive pills**

#### **Instruct the client to:**

- ⊗ take one tablet preferably around the same time every day whether she is likely to have sexual intercourse or not
  - if she starts her first pack of pills within the first five days of menstrual cycle, no back-up method needed.
  - if it is more than five days, client should use back-up method, such as condom, for seven days.

Explain to the client that there are two types of pill packs – those containing 28 pills and those containing 21 pills.

### For 28-pills packs explain that

- ✿ the first 21 of the 28-tablet pack are the active tablets and they have the same colour. The last 7 tablets have a different colour and are the non-active tablets (contain no hormones)
- ✿ she should start with the 21 same colour tablets and continue with the 7 differently coloured ones
- ✿ she should begin the next pack the day after taking the last tablet of the present pack, whether menstruation has occurred or not. There should be no break between packs
- ✿ she should always start a new pack with the group of 21 same colour tablets
- ✿ she should visit the clinic for refill whenever she is on her last pack of pills before she finished taking the last 7 same colour tablets

For the 21-tablet pack, explain to the client that:

- ✿ all the tablets are of the same type and colour
- ✿ she should wait for seven days after taking the last tablet in the present pack before starting to use a new pack, whether menstruation has occurred or not

### What can a woman do if she misses the combined oral contraceptive?

1. If she misses one or two active (hormonal) pills or if she starts a pack one or two days late
  - ✿ she should take an active (hormonal) contraceptive as soon as possible and continue taking pills as usual (that means she may take 2 pills on the same day or at the same time)
  - ✿ she does not need any additional contraceptive
2. If she misses three or more active (hormonal) pills or if she starts a pack three or more days late:
  - ✿ she should take an active (hormonal) contraceptive as soon as possible and continue taking the pills as usual (that means she may take 2 pills on the same day or at the same time)
  - ✿ she should also use condoms or abstain from sex until she has taken active (hormonal) pills for seven days in a row
  - ✿ If she misses pills in the third week, she should finish the active (hormonal) pills in her current pack, throw away 7 inactive (brown) pills and start a new pack the next day. She should also use a backup method (condom) for the next 7 days.

If she missed three or more active pills at any time or started a new pack 3 or more days late **and** she had sex in the past 5 days, she may consider using emergency contraception

**Note:** If the client thinks it would be hard for her to remember to take contraceptive pills on time, or if she keeps missing pills, the provider should encourage her to consider changing to another method.



## Important Issues that the Client should Remember

- ⊗ Combined oral contraceptive does not protect against STIs and HIV/AIDS
- ⊗ Use condoms in addition to pills for protection against STIs and HIV/AIDS
- ⊗ Keep a back-up method, like condom and vaginal spermicides
- ⊗ If the client is seeing a doctor for any health problem she should inform the health provider that she is using combined oral contraceptive
- ⊗ How and where to get supplies
- ⊗ The importance of keeping appointments
- ⊗ Conduct regular self breast examination and cervical smear
- ⊗ Report to the clinic
  - if there are questions or concerns
  - on the scheduled date
  - 4–6 weeks before and after major operations
- ⊗ Report immediately to the clinic if she experiences any of the following:

A - Abdominal pain (severe)
C - Chest pain (severe)
H - Headache (severe)
E - Eye problems, blurring of vision
S - Severe calf pain

Note: Anti-TB agents (Rifampicin, rifabutin), anti-convulsants (Phenytoin, Phenobarbitone, Primidone, Carbamazepine) and ritonavir reduce the efficacy of oral contraceptives. Rifampicin also causes possible breakthrough bleeding. Women who take these medications should not use COCs.

## Follow-up

At one month after the initial pill prescription

- ⊗ Check blood pressure and weight
- ⊗ Ask of any early side effects, respond to them and re-assure her
- ⊗ Rehearse the method of taking pills with client by asking her to tell you how she should take the pill and what to do if she misses the pill(s)
- ⊗ Give six months supply if client shows the ability to use pills correctly
- ⊗ Instruct the client to come for re-supply before the last pack finishes
- ⊗ If you still have doubts about her ability to take pills properly, see her monthly until you are satisfied or consider counselling about another method
- ⊗ Then see her every three months for re-supply and once a year for general check-up
- ⊗ Tell her to return to the clinic without appointment any time she has any problems or doubts
- ⊗ Encourage her to carry out self breast examination monthly

Note: If the client cannot revisit the original clinic she should go to the nearest family planning clinic.

At six months and one year visits

- ⊗ Obtain information on the use of the pill
- ⊗ Check blood pressure and weight
- ⊗ Ask about side effects and danger signals and manage appropriately
- ⊗ Supply pills (six packs every six months)
- ⊗ Give a return appointment for six months
- ⊗ Encourage client to do a pap smear at the appropriate time

Note: If the client seems too forgetful, the provider should encourage her to reconsider whether she (client) should change to another method.

## Management of Problems Associated with Combined Oral Contraceptives

Irregular bleeding or spotting	
History and examination	<p>Ask the client:</p> <ul style="list-style-type: none"> <li>☉ when she started taking the pills</li> <li>☉ whether spotting occurred after intercourse</li> <li>☉ if spotting is associated with pelvic pain during intercourse</li> <li>☉ date of last menstrual period.</li> <li>☉ if she had diarrhoea or vomiting?</li> <li>☉ if she has been taking any other medication, such as anti-TB or anti-seizures medication</li> </ul> <p><i>Physical examination (only if underlying condition is suspected)</i> Do pelvic examination (including speculum examination) if you suspect intrauterine or ectopic pregnancy, pelvic infection, cervical abnormalities or inflammation)</p>
If bleeding/spotting occurs in the first three months	<ul style="list-style-type: none"> <li>☉ Re-assure the client that spotting should decrease or stop after the first three months</li> <li>☉ Ask her to continue using her pills on schedule</li> <li>☉ For short-term relief, try ibuprofen (800 mg 3 times a day) at a time when breakthrough bleeding starts.</li> <li>☉ Give follow-up appointment to re-assess spotting</li> </ul>
If history suggests incorrect pill taking and the client is not pregnant	<ul style="list-style-type: none"> <li>☉ Re-instruct client on correct use of pills</li> <li>☉ Have client repeat instructions to you</li> <li>☉ Provide her with emergency contraceptive pills and explain how to use them</li> <li>☉ Give the client a return appointment for one month</li> </ul>
Bleeding/spotting is due to infection	☉ Manage according to the procedure explained in chapter (12) on STI
Bleeding/spotting is due to suspected ectopic pregnancy	☉ Refer to hospital immediately
Bleeding/spotting is due to intrauterine pregnancy	<ul style="list-style-type: none"> <li>☉ Stop pills</li> <li>☉ Counsel the client about the finding</li> <li>☉ Refer to antenatal clinic (ANC)</li> </ul>
Bleeding/spotting is due to initiation of treatment with rifampicin, anticonvulsants or ritonavir	<ul style="list-style-type: none"> <li>☉ if she will be taking these medications long-term, help her choose another method of contraception</li> <li>☉ if using these medications short-term, advise to use condoms along with COCs until she finishes treatment</li> </ul>
Bleeding/spotting occurs after diarrhoea/vomiting	☉ Instruct client to continue taking the pills as usual and use a barrier for the next seven days after vomiting/diarrhoea stops
Bleeding/spotting occurs mainly after intercourse	<ul style="list-style-type: none"> <li>☉ Do speculum examination to exclude conditions like cervicitis or cervical erosion and cancer</li> <li>☉ Do a pap smear if possible</li> <li>☉ Refer to a specialist if needed</li> </ul>
Nausea and/or Vomiting	
History and examination	<p>Ask the client:</p> <ul style="list-style-type: none"> <li>☉ If she takes her pills every day</li> <li>☉ if she is taking the pills on empty stomach</li> <li>☉ if nausea comes after she starts a new pill pack</li> <li>☉ if she has any symptoms of pregnancy</li> <li>☉ date of last menstrual period (LMP)</li> <li>☉ dietary intake of fatty gaseous foods</li> </ul> <p>Physical examination</p> <ul style="list-style-type: none"> <li>☉ Take vital signs and record</li> </ul>
If she takes pills every day, reassure that she is most	<ul style="list-style-type: none"> <li>☉ Suggest taking COCs at bed time or with food</li> <li>☉ Consider extended use of COCs (taking 12 weeks of active</li> </ul>

likely not pregnant	hormonal pills without a break, followed by one week of non-hormonal pills (or no pills)
If nausea is due to pregnancy	<ul style="list-style-type: none"> <li>⊗ Stop the pill</li> <li>⊗ Counsel</li> <li>⊗ Refer for antenatal care</li> </ul>
<b>Excessive weight gain</b>	
History and examination	<p><i>History</i> Ask the client if:</p> <ul style="list-style-type: none"> <li>⊗ weight gain began after she started pills</li> <li>⊗ there is increase in appetite</li> <li>⊗ weight gain is cyclical or recurrent</li> <li>⊗ symptoms of pregnancy are present</li> </ul> <p><i>Physical examination</i></p> <ul style="list-style-type: none"> <li>⊗ Take and record vital signs including weight</li> </ul>
If weight gain is due to dietary habits	<ul style="list-style-type: none"> <li>⊗ Counsel client about healthy diet</li> <li>⊗ Advise on regular physical exercise</li> </ul>
If weight gain began after COC initiation	<ul style="list-style-type: none"> <li>⊗ Advice on diet and exercise</li> <li>⊗ If weight gain is unacceptable to client, help her to choose another (non-hormonal) method of contraception</li> </ul>
<b>Mood swings/Depression</b>	
History and examination	<p>Ask the client:</p> <ul style="list-style-type: none"> <li>⊗ if the onset of mood swings was before or after starting the pills</li> <li>⊗ if her social conditions have changed, e.g. marriage, job, finances</li> <li>⊗ about the severity of mood swings or depression</li> <li>⊗ comparison with feelings before starting pills (if there was a history of depression)</li> </ul>
If mood swings/depression appears to be pill related	<ul style="list-style-type: none"> <li>⊗ Some women have mood swings/depression during the hormone-free week. Consider extended use of COCs (taking 12 weeks of active hormonal pills without a break, followed by one week of non-hormonal pills (or no pills))</li> <li>⊗ If mood swings/depression are unacceptable, help client to choose another method (non-hormonal)</li> <li>⊗ If depression is serious, refer for care</li> </ul>
If depression seems to be related to social problems	<ul style="list-style-type: none"> <li>⊗ Encourage her to speak openly and confide in a trusted person</li> <li>⊗ Refer to a social worker</li> <li>⊗ If depression is serious, refer to the specialist for treatment</li> </ul>
<b>Headaches</b>	
History and examination	<p>Ask the client if:</p> <ul style="list-style-type: none"> <li>⊗ it occurred before the pills, e.g. due to social, financial or other stress conditions</li> <li>⊗ it is migraine-type headaches (e.g. throbbing, sudden onset preceded by visual disturbance)</li> </ul>
If it is ordinary headache	<ul style="list-style-type: none"> <li>⊗ Counsel that headaches may occur in women using COCs. They often diminish or go away after a few months of COC use</li> <li>⊗ Offer painkillers</li> </ul>
If migraine	<ul style="list-style-type: none"> <li>⊗ Stop the pill</li> <li>⊗ Help to choose another method (non-hormonal)</li> <li>⊗ Refer to the specialist as appropriate</li> </ul>
If headaches are due to high blood pressure is (140/90 mmHg or above)	<ul style="list-style-type: none"> <li>⊗ Take several measurements.</li> <li>⊗ If consistently high, stop the pill</li> <li>⊗ Counsel for other contraceptive method as appropriate</li> <li>⊗ Refer to a specialist as needed</li> </ul>
<b>Loss of libido (reduced sexual urge)</b>	
History and examination	<p>Ask the client if:</p> <ul style="list-style-type: none"> <li>⊗ there is painful coitus, and/or dry vagina during intercourse</li> </ul>

	<ul style="list-style-type: none"> <li>⊗ there are marital or other social problems</li> <li>⊗ loss of libido started before or after taking the pills</li> </ul> <p><i>Physical examination</i></p> <ul style="list-style-type: none"> <li>⊗ Perform pelvic examination if infection or injury are suspected</li> </ul>
If no cause is found	<ul style="list-style-type: none"> <li>⊗ Suggest additional use of water-based lubricants such as KY jelly to reduce vaginal dryness</li> </ul>
If infection or injury are suspected	<ul style="list-style-type: none"> <li>⊗ Treat or refer as appropriate (for STIs see chapter 12)</li> </ul>
If problem is related to social stress	<ul style="list-style-type: none"> <li>⊗ Counsel as appropriate and/or refer to social worker</li> </ul>
<b>Breast tenderness</b>	
History and examination	<p>Ask the client if:</p> <ul style="list-style-type: none"> <li>⊗ symptoms of pregnancy are present</li> <li>⊗ symptoms started with pill use</li> <li>⊗ there is any breast lump or nipple discharge</li> </ul> <p>⊗ Physical examination</p> <ul style="list-style-type: none"> <li>⊗ Do breast examination to exclude lump, discharge or infection</li> <li>⊗ Do pelvic examination if history suggests pregnancy</li> </ul>
If no abnormalities	<ul style="list-style-type: none"> <li>⊗ Counsel that breast tenderness are not uncommon in COC users</li> <li>⊗ Advise client to wear firm supportive brassiere and use analgesics</li> </ul>
If any abnormalities are found	<ul style="list-style-type: none"> <li>⊗ Refer to a specialist</li> </ul>
If due to pregnancy	<ul style="list-style-type: none"> <li>⊗ Stop the pill and refer to ANC</li> </ul>
<b>Acne (pimples)</b>	
History and examination	<p>Ask the client:</p> <ul style="list-style-type: none"> <li>⊗ if problem started since taking the pills</li> <li>⊗ about her dietary habits, particularly as regards fats, fizzy drinks, sweets</li> <li>⊗ how she cares for her skin and if she notices any cyclic outbreak of acne</li> </ul> <p>⊗ Physical examination</p> <ul style="list-style-type: none"> <li>⊗ Carry out physical examination and observe hair distribution (to exclude ovarian tumors)</li> <li>⊗ Observe location, size, numbers, and colour of lesions</li> <li>⊗ Perform pelvic examination or ultrasound to confirm ovarian tumor</li> </ul>
If acne developed or got worse since COC initiation	<ul style="list-style-type: none"> <li>⊗ Try different formulation of low-dose COCs</li> <li>⊗ Advise client to cut down on fatty foods</li> <li>⊗ Use a skin cleanser and astringents, e.g. lime</li> <li>⊗ If acne persists and client is concerned about it, help her choose another method</li> </ul>
<b>Warning signs of complications</b>	
<p>If the following danger signals occur:</p> <ul style="list-style-type: none"> <li>⊗ Abdominal pain (severe)</li> <li>⊗ Chest pain (severe), cough, shortness of breath, coughing up blood</li> <li>⊗ Headaches (severe), dizziness, weakness of limb, numbness</li> <li>⊗ Eye problem (blurred vision, loss of vision, flashes of light)</li> <li>⊗ Severe leg pain (calf or thigh, or swollen leg)</li> </ul>	<ul style="list-style-type: none"> <li>⊗ Stop pills</li> <li>⊗ Refer to a specialist urgently</li> </ul>

## Progestin-only Pills (Mini Pills)

Progestin only pills, also called mini pills, are oral contraceptives that contain synthetic female hormone in the family of progesterone

### Types

Exluton	-	Microlut	-	Norgeal
Femulen 0.5	-	Micro-Novum	-	Norgestrone
Micronor	-	Neogest	-	NorstreL
Nor Q.D	-	Ovrette		

### Effectiveness

Breastfeeding women as commonly used results in about 1 pregnancy per 100 women using POPs over the first year.

With perfect use there is less than 1 pregnancy over 1 year.

Non-breastfeeding women as commonly used results in 3 to 10 pregnancies per 100 women over 1 year.

With perfect use there is less than 1 pregnancy per 100 women over 1 year.

### Mechanism

Thickens cervical mucus to prevent sperm entry into upper reproductive tract (major mechanism). Effect is short lived and requires punctual dosing. Other mechanism include ovulation suppression (in about 50% of cycles), thin, atrophic endometrium which inhibits implantation and slowed tubal mobility.

### Specific Counselling Issues

Inform the client of the following

### Advantages

- ⊗ Very safe for majority of women
- ⊗ Very effective if taken correctly
- ⊗ Does not disturb breast milk production
- ⊗ Chances of pelvic inflammatory disease are probably reduced
- ⊗ Less likely to cause headaches or raised blood pressure
- ⊗ No increased risk of cardiovascular complications
- ⊗ No health risks associated with oestrogen side effect
- ⊗ Can be used for emergency contraception

## **Disadvantages**

- ⊗ Must take the pill every day
- ⊗ Slightly less effective than combined pills
- ⊗ May cause changes in menstrual periods
- ⊗ More likely to cause irregular bleeding, prolonged or heavy bleeding or amenorrhoea
- ⊗ Does not protect against ectopic pregnancy
- ⊗ Does not protect against STIs and HIV/AIDS

## **Women who can use POP without restriction (WHO Category 1)**

POP is suitable for women who:

- ⊗ are of any age or parity, including nulliparous
- ⊗ smoke at any age
- ⊗ have non-migrainous headache or migraines without aura at any age
- ⊗ have acute/flare hepatitis, chronic hepatitis or are carriers
- ⊗ have mild (compensated) cirrhosis
- ⊗ are obese
- ⊗ have uterine fibroid
- ⊗ are breastfeeding within six weeks to six months postpartum
- ⊗ have blood pressure below 160/100
- ⊗ have puerperal and post-abortion sepsis
- ⊗ have cervical cancer (pre-treatment) or cervical intraepithelial neoplasia/cervical carcinoma in situ (CIN)
- ⊗ have endometrial or ovarian cancer
- ⊗ have current and past pelvic inflammatory disease
- ⊗ have increased risk of STIs or current STI including gonorrhoea and chlamydia
- ⊗ have HIV infection or AIDS, but not on antiretroviral therapy
- ⊗ take broad-spectrum antibiotics, antifungal or antiparasitic medications

## **Women who can generally use POP. Some follow up may be needed (WHO Category 2)**

Women who have

- ⊗ systolic blood pressure of 160 mm Hg and diastolic of 100 mm Hg and above
- ⊗ history of deep vein thrombosis or current thrombosis, but established on anticoagulant therapy
- ⊗ major surgery with prolonged immobilization
- ⊗ history or current ischemic heart disease or stroke (initiation only; women who develop heart attack or stroke while using POPs reclassified as category 3)
- ⊗ multiple risk factors for cardiovascular disease
- ⊗ migraine with aura
- ⊗ current diabetes with or without complications
- ⊗ gall-bladder disease
- ⊗ benign liver tumour, such as focal nodular hyperplasia
- ⊗ antiretroviral therapy (unless the regimen contains ritonavir or ritonavir-boosted protease inhibitors)
- ⊗ irregular, heavy or prolonged vaginal bleeding patterns and unexplained vaginal bleeding

### **Use of POP usually not recommended in these women (WHO Category 3)**

Women who

- ⊗ have acute deep vein thrombosis
- ⊗ have liver tumour (other than focal nodular hyperplasia)
- ⊗ have severe (decompensated) cirrhosis
- ⊗ are on Rifampicin/Rifabutin
- ⊗ are taking ritonavir or ritonavir-boosted protease inhibitors as part of their ARV regimen
- ⊗ use certain anti-convulsants, e.g. Phenytoin
- ⊗ are breastfeeding up to six weeks postpartum
- ⊗ developed heart attack or stroke while taking POPs
- ⊗ noticed their migraine with aura became worse while taking POP
- ⊗ women with history of breast cancer and no evidence of current disease for 5 years

### **Women who should not use POP (WHO Category 4)**

- ⊗ Women with current breast cancer

### **Equipment and Materials**

- ⊗ Progestin – only pills (POPs)
- ⊗ Vaginal spermicides
- ⊗ Condoms
- ⊗ Clinic card
- ⊗ Equipment for physical examination
- ⊗ Visual aids

### **Procedure**

#### **Client Preparation**

- ⊗ Same as for combined pills. In addition, ensure that client wishes to use the mini pills and has no contraindication to them.

#### **When to initiate**

- ⊗ Client can start any day during the menstrual cycle when it is reasonable certain that the women is not pregnant
- ⊗ As early as 6 weeks after child birth
- ⊗ If she is breastfeeding and has no monthly bleeding she can start any time, but will have to use a backup method for the first 2 days of taking pills if it has been more than 6 months after childbirth

### **Specific Instruction to POP Users**

- ⊗ Supply three packets of mini pills
- ⊗ Take one pill every day, preferably at the same time



- ✿ Missing pills may lead to pregnancy
- ✿ After one pack is finished, start the next pack on the very next day without a break
- ✿ If pill is taken five days after menstruation had started, use protection or abstain from sex for two days
- ✿ Be aware that menstrual bleeding may become irregular, frequent or infrequent, prolonged, or stop altogether
- ✿ Report to the clinic if the following occurs:
  - You think you might be pregnant (e.g. amenorrhoea or you missed taking pills)
  - You are prescribed drugs for TB or seizures, or starting ARV treatment for AIDS
  - You have any concerns or problems

Note: Most antibiotics do not interfere with minipills; however, certain drugs may reduce the hormonal blood level as they do with combined pills e.g Rifampicin

### **Important things the client should remember**

- ✿ Remind client to take one pill every day at the same time
- ✿ Instruct client that if she forgets to take one tablet, she should take the forgotten pills as soon it is remembered and take the day's pill at the regular time. In addition, she should use a barrier method for the next 2 days
- ✿ Instruct the client that if she takes her pill more than 3 hour late, she should use a barrier method for the next 2 days
- ✿ If she forgets 2 or more tablets in a row, she should take the last missed pill as soon as she can. Then take one each day as usual. Finally she should use a barrier method for the next 2 days. Instruct the client to consider changing to another method if forgetting persists
- ✿ Instruct client to use a barrier method
- ✿ If she has vomiting or diarrhoea, instruct client to use a barrier method or avoid sex for 2 days after the illness is over

### **Follow-up**

#### **First Visit**

- ✿ Check blood pressure and weight
- ✿ Ask if there are any side effects, respond to them and reassure her
- ✿ Rehearse the method of taking pills with client,
- ✿ Give 6 months supply if client shows the ability to use pills correctly.
- ✿ Instruct the client to come for re-supply before the last packet finishes
- ✿ If you doubt her ability to take pills properly, see her monthly until you are satisfied or change client to another method.
- ✿ See her every 6 months for check-up and for re-supply.
- ✿ Stress that she can return to the clinic without appointment anytime she has problems or doubts
- ✿ Encourage client to carry out self- breast examination monthly.

### **At 6 months and 1 year visits**

- ⊗ Take client's history
- ⊗ Ask if she has experienced any side effects or has danger signals and manage as appropriate
- ⊗ Carry out full physical examination, including
  - weight
  - blood pressure
  - heart examination
  - breast examination
  - abdominal examination
  - calves and thighs examination
  - pelvic examination (speculum and digital)
- ⊗ Give supply of pills (six packets at six monthly intervals)
- ⊗ Record findings in the client's record
- ⊗ Give return appointment for six months
- ⊗ Encourage client to do pap smear test every 2–5 years

## Management of Problems Associated with POPs

Spotting/Irregular Bleeding	
History and examination	<p>Ask the client:</p> <ul style="list-style-type: none"> <li>☉ If she missed taking any pills</li> <li>☉ for how many days spotting occurs</li> <li>☉ if spotting is associated with pelvic pains or abnormal vaginal discharge</li> <li>☉ if spotting occurs after intercourse</li> <li>☉ if she had severe vomiting or diarrhoea</li> <li>☉ for date of last menstrual period (if applicable)</li> </ul> <p>Conduct pelvic exam if underlying condition is suspected, such as infection, miscarriage or ectopic pregnancy</p>
If woman did not miss any pills and has no other symptoms	<ul style="list-style-type: none"> <li>☉ Reassure she is most likely not pregnant</li> <li>☉ Counsel that irregular bleeding and spotting are common side effects of POPs and pose no risk to woman's health</li> <li>☉ Suggest ibuprofen (800 mg 3 times a day for 5 days) for a short term relief, beginning with when irregular bleeding starts.</li> <li>☉ If she has been taking POPs for more than a few months, suggest a different POP formulation</li> </ul>
If spotting is due to infection	☉ Manage according to procedure explained in chapter (12) on STI
If spotting is due to suspected ectopic pregnancy	☉ Refer to hospital immediately
If spotting is due to early pregnancy	<ul style="list-style-type: none"> <li>☉ Stop pills</li> <li>☉ Refer to antenatal clinic</li> </ul>
Absence of Menstruation (amenorrhea)	
History and examination	<p>Ask the client:</p> <ul style="list-style-type: none"> <li>☉ If she is breastfeeding</li> <li>☉ how she has been taking the pills and if there were any forgotten or late pills</li> <li>☉ if she takes any medication with mini pills, which could lower the effectiveness</li> <li>☉ if she had severe vomiting or diarrhoea</li> <li>☉ if she has any symptoms of pregnancy</li> <li>☉ Perform pelvic examination if appropriate to rule out pregnancy</li> </ul>
If taking pills correctly and not pregnant	<ul style="list-style-type: none"> <li>☉ Re-assure client that amenorrhea is common in women taking POPs, especially if they are breastfeeding</li> <li>☉ Encourage her to continue taking pills on schedule</li> </ul>
If amenorrhea is not acceptable to client	☉ Counsel her about other available contraceptive methods which do not cause amenorrhea, help her to make an informed choice
If pregnant or ectopic pregnancy is suspected	<ul style="list-style-type: none"> <li>☉ Stop pills</li> <li>☉ Refer to ANC immediately</li> </ul>
Severe Pain in Lower Abdomen	
History and examination	<ul style="list-style-type: none"> <li>☉ Ask if client:</li> <li>☉ Was taking her pills on schedule, without missing any</li> <li>☉ If she has regular menstruation, when was her last period</li> <li>☉ If her bleeding pattern have changed recently</li> <li>☉ If she feels lightheaded or dizzy</li> </ul> <p>Conduct abdominal and pelvic examination or refer to specialist to rule out ectopic pregnancy or other reasons for acute abdomen</p>
If ectopic pregnancy is suspected	☉ Refer to specialist immediately
If due to enlarged ovarian follicle or cyst	<ul style="list-style-type: none"> <li>☉ There is no need to treat unless they grow abnormally large, twist or burst.</li> <li>☉ Reassure client that they usually disappear on their own</li> <li>☉ Follow-up in 6 weeks</li> <li>☉ Refer to specialist if in doubt or if pain becomes worse</li> </ul>

## Injectables

### Definition

These are long acting contraceptives containing combined estrogens and progestins or progestogen only, and are given by intramuscular injection. They provide contraceptive protection from one to three months depending on type.

### Types

#### Progestin-only injectable contraceptives

- ☼ Norethisterone enanthate (Noristerat, NET-EN)
- ☼ Depot-medroxy-progesterone acetate (DMPA, Depo-Provera)

#### Combined Injectable Contraceptives

- ☼ Cyclofem
- ☼ Mesigyna

### Effectiveness

As commonly used, about three pregnancies occur per 100 women using progestin only injectables over the first year. When women have injections on time (perfect use), less than 1 pregnancy occurs per 100 women, in the first year of use.

### Mechanism

Suppresses ovulation by inhibiting LH and FSH surge, thickens cervical mucus impeding sperm entry into female upper reproductive tract, slows sperm transport in the Fallopian tube and causes thinning of the endometrium

### Injectable contraceptives, their hormonal contents and frequency of injections

Product	Estrogen	Progestin	Frequency of Injections
Depot-medroxy progesterone acetate (DMPA)	Nil	150 mg depot-medroxy progesterone	Every 3 months
Norethiserone enanthate (NET-EN)	Nil	200 mg norethisterone enanthate	Every 2 months
Mesigyna (Norigynon)	5 mg estradol valerate	50 mg norethisterone enanthate	Every 1 month
Cyclofem	5 mg estradol cypionate	25 mg depot-medroxy progesterone acetate	Every 1 month

## Specific counselling issues for progestin-only injectable contraceptives

### Advantages

- ✿ Progestin only contraceptives are highly effective and safe
- ✿ They have minimal client dependence
- ✿ They are not related to sexual intercourse
- ✿ They are culturally acceptable
- ✿ They make sickle cell crises less frequent and less painful
- ✿ They may protect from iron-deficiency anaemia
- ✿ They may protect against symptomatic pelvic inflammatory diseases
- ✿ They protect from endometrial cancer and uterine fibroids
- ✿ They reduce symptoms of endometriosis
- ✿ They do not decrease breast milk production
- ✿ They may protect against ectopic pregnancy
- ✿ They offers privacy
- ✿ Progestin only injectable contraceptives have no drug interaction
- ✿ They have no known health risks

### Disadvantages

- ✿ Progestin only injectables require regular visits to the clinic (2–3 months interval)
- ✿ They have common side effects including:
  - irregular, prolonged or heavy bleeding
  - infrequent bleeding or absence of bleeding (amenorrhea)
  - weight gain,
  - headaches, dizziness, mood change, decrease in sex drive
- ✿ Return of fertility may be delayed
- ✿ They do not protect against STI/HIV/AIDS

## Women who can use progestin-only injectables without restriction (WHO Category 1)

### Women who

- ✿ Are between 18 and 45 years old
- ✿ are smoking at any age
- ✿ are nulliparous
- ✿ have puerperal and post-abortion sepsis
- ✿ have current and past pelvic inflammatory disease
- ✿ are at increased risk of STIs or have current STI, including gonorrhoea and chlamydia infection
- ✿ are HIV- infected, have AIDS or are on ART, including ritonavir (ART applies to DMPA only)
- ✿ have non-migrainous headache
- ✿ have uterine fibroid
- ✿ are breastfeeding anytime after six weeks postpartum
- ✿ are obese
- ✿ have depressive disorders
- ✿ have acute/flare hepatitis, chronic hepatitis or are carriers

- ⊗ take any medication, including anti-TB and anti-seizure medications (applies to DMPA only)
- ⊗ have severe dysmenorrhoea
- ⊗ have endometrial or ovarian cancer

**Women who can generally use progestin only injectables; some follow up may be needed (WHO Category 2)**

Women who

- ⊗ are less than 18 and older than 45 years
- ⊗ use certain anti-convulsants, e.g. Phenytoin or anti-TB drugs, e.g. rifampicin/rifabutin (applies to NET-EN only)
- ⊗ are on ARV therapy, including ritonavir (applies to NET-EN only)
- ⊗ have migraine with or without aura
- ⊗ had major surgery with prolonged immobilization
- ⊗ have history of deep vein thrombosis
- ⊗ have blood pressure below 160/100 mmHg
- ⊗ have irregular, heavy or prolong vaginal bleeding patterns
- ⊗ have gall-bladder disease
- ⊗ have benign liver tumour, such as focal nodular hyperplasia
- ⊗ have rheumatic disease such as lupus erythematosus if negative for antiphospholipid antibodies
- ⊗ have cervical cancer (pre-treatment) or cervical intraepithelial neoplasm (CIN)
- ⊗ have diabetes without vascular complications

**Use of progestin only injectables usually not recommended in these women (WHO Category 3)**

Women who

- ⊗ have acute deep vein thrombosis
- ⊗ have liver tumour (other than focal nodular hyperplasia)
- ⊗ are breastfeeding up to six weeks postpartum
- ⊗ have blood pressure above 160/100 mmHg
- ⊗ have diabetes with vascular complications
- ⊗ have unexplained vaginal bleeding (before evaluation)
- ⊗ have multiple risk factors for cardiovascular disease
- ⊗ have current or history of stroke or ischaemic heart disease
- ⊗ noticed their migraines with aura getting worse while taking progestin-only injectables
- ⊗ have rheumatic disease such as lupus erythematosus with positive or unknown antiphospholipid antibodies
- ⊗ history of breast cancer and no evidence of current disease for 5 years

## **Women who should not use progestin-only injectables (WHO Category 4).**

- ⊗ Women who have breast cancer (current)

## **Specific counselling issues for combined injectable contraceptives**

### **Advantages**

- ⊗ Combined injectable contraceptives are highly effective (0.1–0.4 pregnancies occur per 100 women during the first year of use if used perfectly)
- ⊗ They are effective immediately if started within 7 days after the start of monthly bleeding
- ⊗ They do not require pelvic examination prior to use
- ⊗ They are given once a month
- ⊗ They are convenient and easy to use
- ⊗ They do not interfere with sexual intercourse
- ⊗ They can be provided by a trained non-medical personnel
- ⊗ They may protect against ectopic pregnancy
- ⊗ They offer privacy
- ⊗ They may offer the same health benefits as COCs (see COC section)

### **Disadvantages**

- ⊗ Combined injectable contraceptives require regular visits to the clinic (monthly)
- ⊗ Return to fertility may be delayed approximately by one month compared to non-hormonal methods, oral contraceptives or implants
- ⊗ They do not protect against STIs, HIV/AIDS and HPV
- ⊗ They have common side effects:
  - Lighter bleeding, irregular bleeding, prolonged bleeding
  - Infrequent bleeding or absence of bleeding (amenorrhea)
  - headache, mild breast tenderness, dizziness, weight gain

Note: Although this section includes discussion on combined injectable contraceptives, information relating to their use is similar to that for combined oral contraceptives. Please refer to Module 5 Session 5 for detail information on their use.

## **Equipment and Materials**

- ⊗ Depo Provera, Noristerat, Cyclofem or Mesigyna
- ⊗ Combined injectable contraceptive (CIC) eg cycloprovera
- ⊗ Client Cards
- ⊗ Equipment for medical check
- ⊗ Injection tray (contains kidney dish, gallipot, spirit, cotton swabs, 2 or 5ml syringes and needles)
- ⊗ Vaginal spermicides or condoms

## Procedure

### When to initiate progestin only injectables

- ⊗ Anytime it is reasonably certain that a woman is not pregnant
  - If initiated within the first 7 days of menstrual cycle, no back-up method needed
  - If initiated after the first 7 days of menstrual cycle, client will have to use a back-up method (e.g. condom) for the first 7 days after injection
- ⊗ 6 weeks after childbirth
- ⊗ Immediately after a miscarriage or abortion
- ⊗ Immediately after stopping another method

### When to initiate Cyclofem

- ⊗ Anytime during menstrual cycle when you can be reasonably sure that the client is not pregnant
  - If initiated within the first 7 days of menstrual cycle, no back-up method needed
  - If initiated after the first 7 days of menstrual cycle, client will have to use a back-up method (e.g. condom) for the first 7 days after injection
- ⊗ Postpartum
  - After 6 months if breastfeeding
  - After three weeks if not breastfeeding
  - Post-abortion (immediately or within 7 days)

## Client Preparation

- ⊗ Ensure privacy for the client and make her comfortable and relaxed
- ⊗ Find out what the client knows about injectables and fill in any gaps in her knowledge
- ⊗ Explain the advantages, disadvantages, side effects and complications
- ⊗ Make sure the client fully understands
- ⊗ Explain that the drug is given by intramuscular injection every three months (13 weeks) for Depo-Provera or every two months (eight weeks) for Noristerat, and every month or four weeks for Cyclofem
- ⊗ Explain that after discontinuing use, she may experience delay in return to fertility
- ⊗ Obtain client history
- ⊗ Perform a complete physical examination (not necessary for the safe initiation of injectables, but should be offered to a woman as part of good preventive medicine practices)
- ⊗ Perform a speculum examination and where available pap smear (not necessary for the safe initiation of injectables, but should be offered to a woman as part of good preventive medicine practices)
- ⊗ Give injection during the first seven days of menstruation. If client begins injection after seven days of menstrual period and it is reasonably certain she is not pregnant, she should use a barrier (back-up) method or avoid sex for the first seven days after the injection
- ⊗ Follow normal procedure for giving intramuscular injection



## Giving the Injection

- ✿ Check the label carefully
- ✿ Rock the bottle to and fro to allow the contents mix properly
- ✿ *Do not shake the bottle vigorously* because this produces foam, which makes complete withdrawal difficult thus reducing the desired dosage
- ✿ For NET-EN, rub vial in-between the palm to enhance withdrawal of the oily content
- ✿ Do not heat up the Noristerat ampoule as this will reduce the potency of the drug
- ✿ Wash hands
- ✿ No need to wipe top of vial with antiseptic
- ✿ Pierce top of vial with sterile needle and fill syringe with proper dosage, withdraw contents and expel any air from syringe
- ✿ Clean the injection site with cotton wool soaked in methylated spirit or water
- ✿ Inject the drug slowly
- ✿ Apply pressure on injection site with the cotton wool to prevent bleeding
- ✿ Do not rub injection site
- ✿ Dispose needle and syringe
- ✿ Record all information and actions on client's card

## Post-injection Instructions

### Instruct the Client on the Following

- ✿ Do not to rub injection site because this can hasten absorption and reduce duration of efficacy
- ✿ Irregular, heavy or prolonged bleeding or amenorrhea (no menstruation) may be experienced – this is normal with injectables use and not harmful to your health
- ✿ Return to the clinic in three months (13 weeks) for repeat injection if on Depo-Provera, or two months (eight weeks) if on Noristerat and one month (four weeks) for Cyclofem
- ✿ Encourage client to keep appointments, but come back even if she is late for her re-injection
- ✿ Return to the clinic if the following is experienced
  - Suspicion about pregnancy
  - Any concerns about the method
  - Migraines with aura became worse while using progestin-only injectables
  - If there are any significant changes in her health which may or may not be related to the use of injectable contraceptives (e.g. she had heart attack or stroke, or deep venous thrombosis)
  - Heavy bleeding that concerns her
  - Jaundice
- ✿ Client should inform the physician that she is using injectable contraception whenever she consults a physician or is admitted to hospital

## Follow – up Visits

The client should return to the clinic every 13 weeks for Depo-Provera, eight weeks for Noristerat and four weeks for Cyclofem/Mesigyna.

### At follow up visit

- ⊗ Take history
- ⊗ Review the client's record card
- ⊗ Ask if she has questions, complaints or concerns, or is satisfied with the method
- ⊗ Ask if she had any major changes in her health status since her last visit.
- ⊗ Ask about menstruation: date, duration and quantity (most women have irregular bleeding or amenorrhea while using progestin-only injectables, but some women will maintain regular cycles)
- ⊗ Ask if she has been doing self breast examination
- ⊗ Check weight
- ⊗ Check blood pressure, if possible
- ⊗ If the client is satisfied and has no contraindications to continue use, give repeat injection
- ⊗ Client may be given re-injection up to 2 weeks earlier or 4 weeks later than her scheduled re-injection date (for Depo-Provera), 2 weeks earlier or 2 weeks later than scheduled re-injection date for Net-En, and up to 7 days earlier or later for Cyclofem
- ⊗ Give follow-up appointment
- ⊗ Record actions and findings on client's card

### Every 12 months

- ⊗ Review the client's record
- ⊗ Obtain history and update your record
- ⊗ Perform a complete physical examination, including pap smear
- ⊗ Give repeat injection
- ⊗ Give follow-up appointment

Managing late DMPA injection (for NET-EN, substitute references to 4 weeks by 2 weeks; for Cyclofem, substitute references to 4 weeks by 1 week)

- ⊗ If the client is less than 4 weeks late for a repeat injection, she can receive her next injection. No need for pregnancy tests, evaluation, or a back-up method.
- ⊗ A client who is more than four weeks late can receive her next injection if:
  - she has not had sex since *4 weeks after* she should have had her last injection
  - she has used a back-up method or has taken emergency contraceptive pills after any unprotected sex since *4 weeks after* she should have had her last injection
  - she is fully or nearly fully breastfeeding and she gave birth less than 6 months ago
  - she will need a back-up method for the first 7 days after the injection
- ⊗ If the client is more than 4 weeks late and does not meet these criteria, additional steps can be taken to be reasonably certain that she is not pregnant (e.g pelvic exam, pregnancy test).

Note: These steps are helpful because many women who have been using progestin only injectables will have no monthly bleeding for at least a few months, even after discontinuation. Thus, asking her to come back during her next monthly bleeding means her next injection could be unnecessarily delayed, possibly leaving her without contraceptive protection.

## Management of Problems associated with Injectables

Irregular bleeding or spotting	
History and examination	<p>Ask the client:</p> <ul style="list-style-type: none"> <li>⊗ how long spotting/bleeding has been occurring</li> <li>⊗ if spotting is associated with pelvic pain, pain with intercourse, or post-coital bleeding</li> </ul> <p><i>Physical examination</i></p> <p>If underlying condition is suspected based on history, perform a pelvic examination to exclude other causes such as fibroids, miscarriage, pelvic inflammatory disease, cervical polyp, inflammation, cancer, pregnancy</p>
If no underlying condition is suspected	<ul style="list-style-type: none"> <li>⊗ Reassure that most women who use injectables experience irregular bleeding. It is not harmful and usually becomes less or stops after a few months. <ul style="list-style-type: none"> <li>- encourage intake of food rich in iron</li> <li>- offer low doses combined oral contraceptive for 21 days or 2–3 cycles (this may temporarily reduce the bleeding)</li> <li>- for modest short-term relief suggest ibuprofen (800 mg. 3 times a day for 5 days), beginning when irregular bleeding starts (other non-steroidal anti-inflammatory drugs but NOT ASPIRIN may be given)</li> </ul> </li> </ul> <p><i>No uterine curettage is needed if there is no improvement and woman finds bleeding unacceptable, help her choose another method</i></p>
Underlying condition, such as infection, genital cancer, miscarriage or ectopic pregnancy is suspected based on history or pelvic examination	<ul style="list-style-type: none"> <li>⊗ Refer to a specialist without delay</li> </ul>
Prolonged Heavy Bleeding	
History and examination	<p>Ask client the:</p> <ul style="list-style-type: none"> <li>⊗ duration of bleeding</li> <li>⊗ number of pads soaked per day</li> <li>⊗ feeling of weakness, dizziness</li> <li>⊗ pelvic pain, pain with intercourse</li> <li>⊗ date of last menstrual period (if her menstruation remain regular while on injectable contraceptives)</li> <li>⊗ symptoms of pregnancy</li> </ul> <p><i>Physical examination</i></p> <ul style="list-style-type: none"> <li>⊗ Check conjunctiva, nail beds for pallor</li> <li>⊗ If underlying condition is suspected, perform a pelvic examination to exclude fibroids, spontaneous abortion, or infection</li> </ul> <p><i>Test</i></p> <ul style="list-style-type: none"> <li>⊗ Do a pregnancy test if she was more than 4 weeks late for injection</li> <li>⊗ Check Hb/PCV</li> </ul>

If no underlying condition is suspected	<ul style="list-style-type: none"> <li>☼ Reassure that some women using injectable contraceptives experience heavy or prolonged bleeding. It is not harmful and usually becomes less or stops after a few months</li> <li>☼ Suggest ibuprofen or short course of COCs as described above (Irregular bleeding or spotting section)</li> <li>☼ Prescribe iron tablets and suggest to eat foods containing iron</li> <li>☼ If bleeding is unacceptable to a woman or becomes a health threat, help her choose another method</li> </ul>
If due to infection	☼ Manage client according to procedure for STIs
If due to gynaecological causes unrelated to injectables	☼ Refer client to the specialist without delay
<b>Amenorrhea</b>	
History and examination	<p>Ask the client:</p> <ul style="list-style-type: none"> <li>☼ if menstruation was regular before beginning the injection</li> <li>☼ how long menstruation has been absent (date of last menstrual period)</li> <li>☼ any missed injections</li> <li>☼ any symptoms of pregnancy</li> </ul> <p><i>Physical examination</i></p> <p>If client missed re-injection or was late by more than 4 weeks for DMPA (2 weeks for NET-EN, 1 week for Cyclofem), rule out pregnancy either by pelvic exam or pregnancy test</p>
If no missed or delayed injections	<ul style="list-style-type: none"> <li>☼ Reassure client that most women using progestin-only injectables stop having monthly bleedings. This is to be expected and not harmful. Monthly bleedings will return after injectables are discontinued.</li> <li>☼ Inform client that if absence of menstruation is not acceptable to her, she may change to another method</li> </ul>
If pregnant	☼ Refer client to antenatal clinic
If examination findings suggest underlying condition (e.g. polycystic ovarian syndrome)	☼ Refer client to the specialist
<b>Headaches</b>	
History and examination	<ul style="list-style-type: none"> <li>☼ Ask the client to describe the headache if headaches were present before the injection or not</li> <li>☼ Any associated symptoms like dizziness, blurred vision, nausea/flushes of light</li> <li>☼ Other causes, e.g. social, financial and physical stress</li> </ul> <p><i>Physical examination</i></p> <ul style="list-style-type: none"> <li>☼ Measure blood pressure</li> </ul>
If ordinary headaches	☼ Suggest painkillers, such as ibuprofen or paracetamol, or other available pain relievers
If migraines	<ul style="list-style-type: none"> <li>☼ If her migraines became more frequent or more severe while using injectables, or she developed aura, discontinue injections</li> <li>☼ Help her choose another method without hormones</li> </ul>

If due to elevated blood pressure	<ul style="list-style-type: none"> <li>☒ If BP is 160/100 or higher, stop further injection and give non-hormonal method</li> <li>☒ Refer to specialist as needed</li> </ul>
<b>Loss of Libido</b>	
History and examination	<p>Ask the client:</p> <ul style="list-style-type: none"> <li>☒ if loss of libido occurred before beginning injection or since beginning injection</li> <li>☒ if there is any pelvic pain, pain during intercourse, dryness, or vaginal discharge</li> <li>☒ if there are any marital or social problems</li> </ul> <p><i>Physical examination</i></p> <ul style="list-style-type: none"> <li>☒ If underlying condition is suspected, do pelvic examination to exclude trauma or infection</li> </ul>
If no underlying condition is suspected	<ul style="list-style-type: none"> <li>☒ Provide counselling and support as appropriate</li> <li>☒ If due to social/marital problems, refer to a social worker</li> <li>☒ If loss of libido is unacceptable to client, help her choose another method</li> </ul>
If loss of libido is due to infection or trauma	☒ Manage client according to procedure for STIs in Chapter 12 or refer to the specialist
If due to dryness of vagina	☒ Advise client on use of water-based lubricants such as KY Jelly or contraceptive jelly
<b>Excessive Weight Gain</b>	
History and examination	<p>Ask the client:</p> <ul style="list-style-type: none"> <li>☒ if there is any change in lifestyle activities</li> <li>☒ if there is increase in appetite</li> <li>☒ about dietary intake of fats, starches, sugar, pattern of eating</li> <li>☒ if weight gain started since injection</li> <li>☒ date of last menstrual period</li> <li>☒ symptoms of pregnancy</li> </ul> <p><i>Physical examination</i></p> <ul style="list-style-type: none"> <li>☒ Take and compare weight to previous readings</li> <li>☒ If pregnancy is suspected (e.g. she missed or was late for re-injection), perform pelvic examination or do pregnancy test to rule out pregnancy</li> </ul>
If no other reasons for weight gain are identified	<ul style="list-style-type: none"> <li>☒ Counsel that women who use injectables can gain some weight</li> <li>☒ If weight gain is unacceptable to client, help her choose another method</li> </ul>
If weight gain is due to pregnancy	☒ Refer client to antenatal clinic
If weight gain is due to dietary intake and pattern of eating	<ul style="list-style-type: none"> <li>☒ Advise client to decrease intake of fats, starch and sugar and increase intake of vegetables and protein</li> <li>☒ If possible, avoid eating in-between meals</li> <li>☒ Advise on regular physical exercise</li> </ul>
<b>Mood Changes</b>	
History and examination	<p>Ask the client:</p> <ul style="list-style-type: none"> <li>☒ About history of mood changes</li> <li>☒ when mood changes were noted</li> <li>☒ if there is any marital or social problem</li> </ul> <p><i>Physical examination</i></p> <ul style="list-style-type: none"> <li>☒ Observe general appearance for signs of neglect, body carriage, facial expression, speech and degree of concentration</li> </ul>

If no other reasons for mood changes	<ul style="list-style-type: none"> <li>⊗ Counsel that injectables can be the cause of mood changes.</li> <li>⊗ If mood changes are mild, give support or refer as appropriate</li> <li>⊗ If mood changes are unacceptable to client, help her choose another method</li> </ul>
If depression is suspected	<ul style="list-style-type: none"> <li>⊗ Refer to psychiatrist immediately</li> </ul>

## Contraceptive Implants

### Definition

Implants are progestin-only contraceptives inserted under the skin of a woman's upper arm by a minor surgical procedure.

### Types

- ✿ Jadelle® — two silicon rods; each containing 75 mg levonorgestrel. It is an improved version of Norplant. Jadelle is effective for 5 years.
- ✿ Implanon — one rod containing a progestin called etonogestrel. Implanon is effective for 3 years.
- ✿ Sinoplant or sino-implant — two thin flexible silicon rods that contain 75 mg levonorgestrel each (similar to Jadelle). Effective for 5 years.
- ✿ Uniplant — one rod that contains 55mg of norgestrel acetate.
- ✿ Norplant — six soft plastic rods that each contain 36 mg levonorgestrel. Effective for 5-7 years. Norplant has been discontinued due to the availability of newer and better implants, but there are still women using it who will be due for removal over the next few years.

Note: Sinoplant is currently available only in China and Indonesia. If Sinoplant is registered in Africa, its public sector price is expected to be much lower than that of Jadelle.

### Effectiveness

- ✿ Less than one pregnancy occurs per 100 women using implants over the first year (5 per 10,000 women)
- ✿ About one pregnancy per 100 women for over five years of Jadelle use
- ✿ Less than one pregnancy per 100 women (1 per 1,000 women) for over three years use of Implanon
- ✿ Over four years for Sinoplant use: 0.3 to 1.1 pregnancies per 100 women in the first year of use
- ✿ Over seven years of Norplant use: about two pregnancies per 100 women

### Mechanism

- ✿ Inhibit ovulation
- ✿ Thins the endometrium: inadequate development of secretory endometrium

## Specific Counselling Issues

Provide the following information to the client

### Advantages

No repeated visits to the clinic are required

- ✿ Contraceptive implants are effective immediately if inserted within the first 7 days of menstrual cycle (5 days for Implanon)
- ✿ They are very effective in preventing pregnancy and safe for majority of women
- ✿ They are long-acting
- ✿ They may help prevent iron deficiency anemia, symptomatic pelvic inflammatory disease, and ectopic pregnancy
- ✿ Do not disturb breast milk production
- ✿ Less likely to cause headaches or raised blood pressures than estrogen-containing contraceptives
- ✿ No increased risk of cardio-vascular complications

### Disadvantages

- ✿ Contraceptive implants have common side effects:
  - may cause spotting and irregular vaginal bleeding for 60–70% of users
  - amenorrhea (less common than irregular bleeding with all implants, but Implanon)
  - headaches, abdominal pain, weight gain, breast tenderness, dizziness, nausea, mood change, acne
  - some women may develop enlarged ovarian follicles
- ✿ Insertion and removal involve minor surgical procedures and therefore may be associated with bruising (discolouration of the arm), infection or bleeding
- ✿ The client cannot discontinue the method on her own
- ✿ Outline of the rods may be visible under the skin of some women, especially when the skin is stretched
- ✿ Contraceptive implants do not protect a woman from STIs/HIV/AIDS

## Women who can use implants without restriction (WHO Category 1)

Women who

- ✿ are of any age and parity, including nulliparous
- ✿ obese<sup>1</sup>
- ✿ have uterine fibroids
- ✿ are breastfeeding within six weeks to six months postpartum
- ✿ have puerperal and post-abortion sepsis
- ✿ have pelvic inflammatory disease (previous and present)

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<sup>1</sup> Implants start to lose effectiveness sooner for heavier women (>70kg): these women may have to replace their implants earlier.



- ⊗ have increased risk of STIs or current STIs, including gonorrhoea or chlamydia
- ⊗ have HIV infection or AIDS, but are not on ARV therapy
- ⊗ are smoking at any age
- ⊗ have hypertension below 160/100 mmHg
- ⊗ have non-migrainous headaches
- ⊗ have depressive disorders
- ⊗ have endometrial or ovarian cancer
- ⊗ have iron-deficiency anemia or sickle cell disease
- ⊗ have acute or flare hepatitis, chronic hepatitis, or carrier
- ⊗ have mild (compensated cirrhosis)
- ⊗ take broad-spectrum antibiotics, antifungal or antiparasitic medication

## **Women who can generally use implants; some follow up may be needed (WHO Category 2)**

Women who have

- ⊗ drug interactions such as Rifampicin, Rifambutin, certain anti-convulsants, e.g. Phenytoin, ARVs
- ⊗ cervical cancer (pre-treatment) or cervical intraepithelial neoplasia
- ⊗ hypertension higher than 160/100 mm Hg
- ⊗ history of DVT or current DVT while established on anticoagulant therapy
- ⊗ major surgery with prolonged immobilization
- ⊗ multiple risk factors for cardiovascular disease
- ⊗ history or current ischaemic heart disease or stroke (for initiation only)
- ⊗ migraine with aura at any age (for initiation only)
- ⊗ diabetes with or without complications
- ⊗ rheumatic disease, such as systemic lupus erythematosus if negative for antiphospholipid antibodies
- ⊗ irregular or heavy vaginal bleeding patterns
- ⊗ gall-bladder disease
- ⊗ liver tumour, such as focal nodular hyperplasia

## **Use of implants usually not recommended in these women (WHO Category 3)**

Women who

- ⊗ have unexplained vaginal bleeding
- ⊗ have deep vein thrombosis (acute)
- ⊗ have liver tumour other than focal nodular hyperplasia
- ⊗ have severe (decompensated) cirrhosis
- ⊗ are breastfeeding up to six weeks postpartum
- ⊗ have rheumatic disease, such as systemic lupus erythematosus with positive or unknown antiphospholipid antibodies
- ⊗ have history of breast cancer and no evidence of current disease for 5 years
- ⊗ noticed their migraines with aura getting worse while using contraceptive implants
- ⊗ were diagnosed with ischaemic heart disease or stroke while using implants

## **Women who should not use contraceptive implants (WHO Category 4)**

Women who have current breast cancer

## **Women who can use implants without restriction (WHO Category 1)**

Women who

- ✿ are of any age and parity, including nulliparous
- ✿ obese<sup>2</sup>
- ✿ have uterine fibroids
- ✿ are breastfeeding within six weeks to six months postpartum
- ✿ have puerperal and post-abortion sepsis
- ✿ have pelvic inflammatory disease (previous and present)
- ✿ have increased risk of STIs or current STIs, including gonorrhoea or chlamydia
- ✿ have HIV infection or AIDS, but are not on ARV therapy
- ✿ are smoking at any age
- ✿ have hypertension below 160/100 mmHg
- ✿ have non-migrainous headaches
- ✿ have depressive disorders
- ✿ have endometrial or ovarian cancer
- ✿ have iron-deficiency anemia or sickle cell disease
- ✿ have acute or flare hepatitis, chronic hepatitis, or carrier
- ✿ have mild (compensated cirrhosis)
- ✿ take broad-spectrum antibiotics, antifungals or antiparasitic medication

## **Women who can generally use implants; some follow up may be needed (WHO Category 2)**

Women who have

- ✿ drug interactions such as Rifampicin, Rifambutin, certain anti-convulsants, e.g. Phenytoin, ARVs
- ✿ cervical cancer (pre-treatment) or cervical intraepithelial neoplasia
- ✿ hypertension higher than 160/100 mm Hg
- ✿ history of DVT or current DVT while established on anticoagulant therapy
- ✿ major surgery with prolonged immobilization
- ✿ multiple risk factors for cardiovascular disease
- ✿ history or current ischaemic heart disease or stroke (for initiation only)
- ✿ migraine with aura at any age (for initiation only)
- ✿ diabetes with or without complications
- ✿ rheumatic disease, such as systemic lupus erythematosus if negative for antiphospholipid antibodies
- ✿ irregular or heavy vaginal bleeding patterns
- ✿ gall-bladder disease
- ✿ liver tumor, such as focal nodular hyperplasia

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<sup>2</sup> Implants start to lose effectiveness sooner for heavier women: these women may have to replace their implants earlier.

### **Use of implants usually not recommended in these women (WHO Category 3)**

#### **Women who**

- ✿ have unexplained vaginal bleeding
- ✿ have deep vein thrombosis (acute)
- ✿ have liver tumor other than focal nodular hyperplasia
- ✿ have severe (decompensated) cirrhosis
- ✿ are breastfeeding up to six weeks postpartum
- ✿ have rheumatic disease, such as systemic lupus erythematosus with positive or unknown antiphospholipid antibodies
- ✿ have history of breast cancer and no evidence of current disease for 5 years
- ✿ noticed their migraines with aura getting worse while using contraceptive implants
- ✿ were diagnosed with ischaemic heart disease or stroke while using implants

### **Women who should not use contraceptive implants (WHO Category 4)**

- ✿ Women who have current breast cancer

### **Equipment and Materials**

- ✿ One set of implant capsules
- ✿ Trocar and cannula as supplied
- ✿ Sterilized surgical drapes
- ✿ Sterile gloves preferably devoid of talcum powder
- ✿ Antiseptic solution like Savlon, Hibitane or Betadine
- ✿ Local anesthetic agent like Xylocaine 1%
- ✿ Syringe and needle
- ✿ Sterile gauze/cotton wool
- ✿ Plaster
- ✿ Artery forceps (2)
- ✿ Scalpel and blade (size 12) (optional)
- ✿ Examination couch with arm rest
- ✿ Disinfectant solution, e.g. Jik
- ✿ Plastic bowl

### **Procedure**

#### **Client Preparation**

- ✿ Screen the client for eligibility using the screening checklist for initiation of contraceptive implants
- ✿ Listen to the client's concern and respond to her questions appropriately
- ✿ Give clear information about probable changes in bleeding pattern during the menstrual cycle and other possible side effects
- ✿ Describe the insertion and removal procedures and what the client should expect during and afterwards

- ⊗ Ensure client's cooperation and relaxation
- ⊗ Review client assessment data to determine if the client is an appropriate candidate for implants or if she has any problems that should be monitored more frequently while the implants are in place
- ⊗ Do general examination
- ⊗ Do a pelvic examination if needed or requested by client (pelvic examinations are not necessary for safe implant initiation and use, but may be indicated for other reasons and are part of the preventive medicine practices and health promotion)

### **Steps for Inserting Contraceptive Implant**

- ⊗ Instruct the client to lie on the couch with arm stretched out comfortably
- ⊗ Support arm with arm rest
- ⊗ Use proper infection prevention procedure (see Module 10)
- ⊗ Wash hands
- ⊗ Clean the area of insertion with antiseptic solution: iodine (if available) and finally with spirit
- ⊗ Apply sterile drapes exposing the insertion area only (under the skin of the upper arm).
- ⊗ Using the standard technique, insert the Implant under the skin.
- ⊗ Cover the insertion point with sterile dressing gauze, and plaster
- ⊗ Apply bandage if necessary

Note: The insertion and removal procedures are similar for all implants.

### **Post-insertion care and instructions**

- ⊗ Observe the client in the clinic for 15 minutes for signs of fainting or bleeding from insertion site
- ⊗ Instruct the client to:
  - keep the insertion area dry and clean for five days
  - avoid carrying heavy load or applying unusual pressure to the site
  - inform the doctor that she is using contraceptive implant(s) if there is need for other medical treatment
- ⊗ Return to the clinic if any of the following danger signs are experienced:
  - feeling unwell
  - fever
  - severe abdominal pain
  - pus at site of insertion, pain or redness
  - capsules falling out
- ⊗ Return to the clinic at any time to receive advice and medical attention and, if desired, to have the rods removed
- ⊗ Return for removal at the appointed time (a year earlier if she has gained a lot of weight)
- ⊗ Request the client to repeat all instructions
- ⊗ No scheduled follow-up required. It is usually recommended to come back for a yearly check-up for general health purposes
  - Write down clearly for the client the type of implant she has, date of insertion, month and year when implants will need to be removed/replaced (in 5 years for

Jadelle/Sinoplant, 3 years for Implanon)

### **Follow-up Counselling**

- ✿ Check whether the client is satisfied with method
- ✿ Inquire about problems and respond to concerns about side effects
- ✿ Re-assure the client that the rods can be removed at any time if desired
- ✿ Review the warning signs that indicate the need to return to the clinic
- ✿ Remind the client of removal date

### **Removing Contraceptive Implant Capsules**

#### **Equipment and Materials**

- ✿ Sterilized surgical drapes
- ✿ Sterile syringe (5–10 mls) and needle (23G or 21G) to apply anesthesia
- ✿ Sterile gloves
- ✿ Antiseptic solution like Savlon, Hibitane or Betadine
- ✿ Local anesthetic agent, e.g. 1% Xylocaine
- ✿ Scalpel blade holder and surgical blade
- ✿ Artery forceps (mosquito) 2
- ✿ Examination couch with arm rest
- ✿ Sterile gauze and cotton swabs
- ✿ Disinfectant, e.g. Jik
- ✿ Plastic bowl

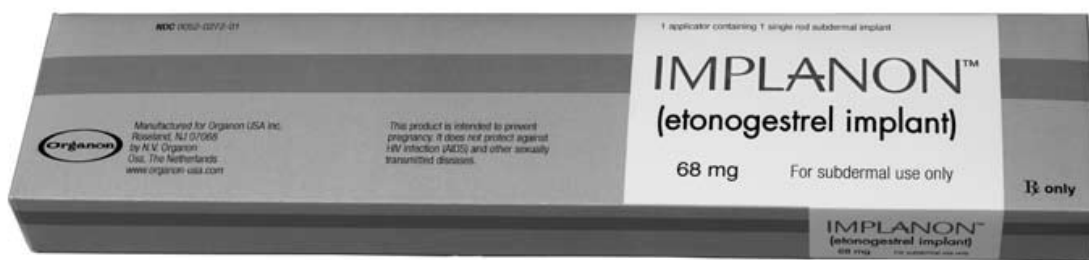
#### **Steps**

- ✿ Position the client and prepare the area of procedure as for insertion of implant
- ✿ Raise the head of the examining table so that the client can be more comfortable
- ✿ Be sure you are comfortable. You may be more at ease sitting rather than standing
- ✿ Locate the implants by palpation, possibly marking the position
- ✿ Inject the local anesthetic slowly under the implants. It is recommended that you initially inject approximately 1cc of 1% Xylocaine. Have an additional 2–5cc of Xylocaine available, which can be used for the removal of each implant if required
- ✿ Make a 2–3mm incision with the scalpel blade also to the ends of the implants. Do not make a large incision
- ✿ Rather than making the incision at exactly the same site as the location of the incision used to insert the implant, you may wish to make the incision as close as possible to the tip of all the implants. Some physicians use the incision so as to avoid a second scar
- ✿ If one implant is far from the other and cannot be reached, make a second incision
- ✿ Throughout the procedure, ask the client if she feels any pain and provide additional local anesthetic as needed
- ✿ With your finger, apply pressure to the distal end of each implant. Push the implant towards the incision with the fingers
- ✿ With a sharp blade, a gauze pad, or mosquito forceps, remove the scar tissue covering the implants (i.e. gently opening the tissue capsule around the implant
- ✿ When the tip of the implant is visible in the incision, grasp it with the mosquito forceps

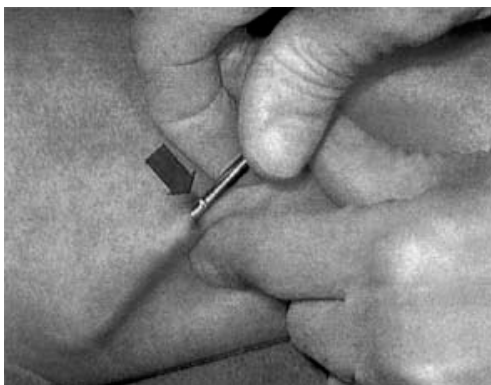
- ❌ Remove the implant from the incision with the second forceps
- ❌ The removal of the implants should be performed very gently and will take more time than the insertion



Jadelle implant



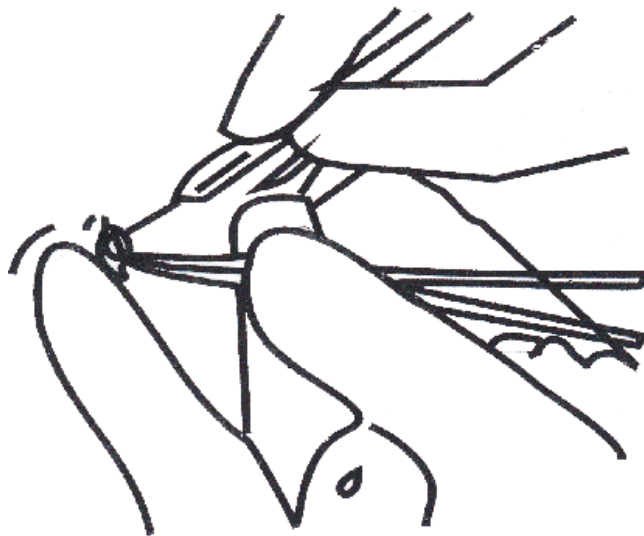
Implanon implant



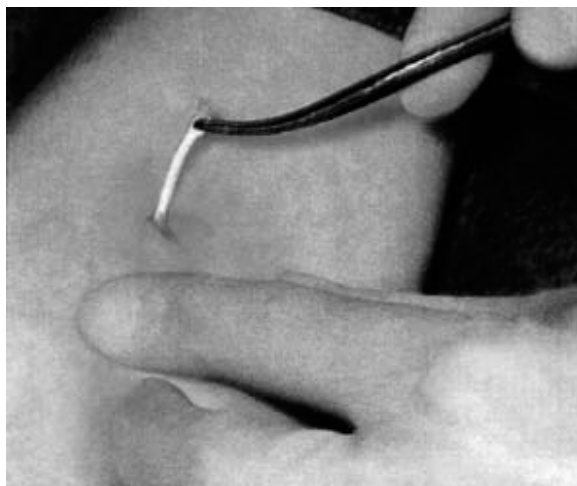
Inserting implant just under the skin



Incision to remove the implant



Using scalpel to open the tissue capsule around the implant



Gently pull out the implant



## Management of problems associated with contraceptive implants

Pain after insertion or removal	
If no signs of infection	<ul style="list-style-type: none"> <li>⊗ Advise her to avoid pressing on the implants for a few days and never press on the implants if tender</li> <li>⊗ Give Aspirin or another non-steroidal anti-inflammatory drug</li> </ul>
Infection at the insertion site	
If there is redness, heat, pain, pus	<ul style="list-style-type: none"> <li>⊗ Do not remove the implants</li> <li>⊗ Clean the infected area with soap and water or antiseptic</li> <li>⊗ Given an oral antibiotic, e.g. Amoxicillin 500 g tds for 7 days and ask the client to return in one week</li> <li>⊗ Then if no improvement, remove the implants or refer for removal</li> </ul>
If there is an abscess	<ul style="list-style-type: none"> <li>⊗ Clean the infected area with antiseptic, make an incision, and drain the pus</li> <li>⊗ Treat the wound and given oral antibiotic for seven days</li> <li>⊗ Ask client to return in 7 days if she still has symptoms (heat, pain, drainage, redness). If infection is still present, remove the implants or refer for removal. Help to choose another method</li> </ul>
Irregular or heavy bleeding	
History and examination	<p>Ask the client:</p> <ul style="list-style-type: none"> <li>⊗ the duration and quantity of bleeding</li> <li>⊗ if it coincides in timing with implants insertion</li> <li>⊗ the presence of abdominal pain or fainting spells</li> </ul> <p>Physical examination</p> <ul style="list-style-type: none"> <li>⊗ Check mucous membrane for colour and pallor</li> <li>⊗ Check weight</li> <li>⊗ Check blood pressure</li> <li>⊗ Check that the implant is still in place and complete</li> <li>⊗ If underlying condition is suspected, perform abdominal and pelvic examinations to exclude pregnancy or related complications, e.g. abortion or ectopic pregnancy (pregnancy is highly unlikely if it was ruled out prior to insertion of the implant and implant is still in place)</li> </ul> <p>Test</p> <ul style="list-style-type: none"> <li>⊗ Pregnancy test or a pelvic ultrasound if indicated</li> <li>⊗ Refer as indicated</li> </ul>
If no underlying condition is suspected (implant is still in place and bleeding started after implant initiation)	<ul style="list-style-type: none"> <li>⊗ Reassure the client that bleeding changes are common in women who are using implants, they are not harmful and usually become less or stops altogether after the first year of use</li> <li>⊗ If the client finds the bleeding unacceptable and no estrogen contraindication, offer: <ul style="list-style-type: none"> <li>- one cycle of low-dose combined oral contraceptive (pill containing the progestin levonorgestrel). The same progestin present in the implants is best for controlling bleeding</li> <li>- Ibuprofen or other non-steroidal anti-inflammatory drugs, but not aspirin</li> </ul> </li> <li>⊗ If bleeding is very heavy (twice as much as usual): <ul style="list-style-type: none"> <li>- check for anemia if the bleeding is heavy. If present, treat and refer</li> </ul> </li> </ul>



	<ul style="list-style-type: none"> <li>- advise on food containing iron</li> <li>⊗ If bleeding is unacceptable to the client, help her choose another method and remove implant</li> <li>⊗ uterine evacuation is not necessary and is contraindicated</li> </ul>
If bleeding is due to gynecological problems	⊗ Treat or refer for care as appropriate
Unexplained abnormal vaginal bleeding that suggests underlying medical condition unrelated to method use	<ul style="list-style-type: none"> <li>⊗ The client can continue using implant while her condition is being evaluated</li> <li>⊗ If no cause of bleeding can be found, consider stopping implants to make diagnosis easier. Provide another method until the condition is evaluated and treated (other than hormonal method or IUD)</li> <li>⊗ Treat any underlying medical problems or refer for care. If bleeding is caused by STI or PID, she can continue using implants during treatment. If caused by cervical or endometrial cancer, she can continue using implants while awaiting treatment.</li> </ul>
<b>Severe pain in lower abdomen</b>	
History and examination	<ul style="list-style-type: none"> <li>⊗ Rule out ovarian cyst, complicated ovarian cyst, ovarian tumor, pelvic inflammatory diseases, appendicitis, ectopic pregnancy or ruptured tumor</li> <li>⊗ Be particularly alert for additional signs or symptoms of ectopic pregnancy, which is rare, but serious: <ul style="list-style-type: none"> <li>- abnormal vaginal bleeding or no monthly bleeding, particularly if this is change from her previous bleeding pattern</li> <li>- light-headedness or dizziness</li> <li>- fainting</li> </ul> </li> </ul>
If ectopic pregnancy or another serious condition is suspected	<ul style="list-style-type: none"> <li>⊗ Refer for immediate diagnosis and care</li> <li>⊗ Implants can remain in place</li> </ul>
If pain is due to ovarian cyst	<ul style="list-style-type: none"> <li>⊗ Implants can remain in place.</li> <li>⊗ Re-assure the client that these cysts usually disappear on their own without surgery.</li> <li>⊗ To be sure there is no problem, see the client again in about three weeks if possible</li> </ul>
<b>Headaches</b>	
Ordinary headaches	<p>If these headaches are ordinary:</p> <ul style="list-style-type: none"> <li>⊗ Suggest painkillers such as ibuprofen or paracetamol</li> <li>⊗ Reassure</li> </ul>
If migrainous headaches with aura (blurred vision, temporary loss of vision, seeing flashing lights or zigzag line)	<p>If migraines with aura started or became worse after she began using the method, remove implants.</p> <ul style="list-style-type: none"> <li>⊗ Help client to choose non-hormonal contraceptive method</li> <li>⊗ Refer for care as needed</li> </ul>
If there is no pregnancy and amenorrhea is less than six weeks	<ul style="list-style-type: none"> <li>⊗ Re-assure the client that menstruation may resume within 4–6 weeks or onset of last menstruation</li> <li>⊗ Give follow-up appointment for 2–4 weeks</li> </ul>
If the client is pregnant	<ul style="list-style-type: none"> <li>⊗ Remove the implant</li> <li>⊗ Refer immediately for antenatal care</li> </ul>

## Summary

Hormonals are highly effective methods of contraceptives that are available in forms of Pills, injectables and Implants for the woman.

## Evaluation

- ✿ State the mechanism of action of combined contraceptive
- ✿ State the mechanism of action of progesterone-only contraceptives
- ✿ State the non-contraceptive benefits of hormonal contraceptive pills
- ✿ List the common disadvantages of hormonal methods?
- ✿ Describe the management of irregular bleeding in a client using injectables

## MODULE 5 SESSION 6: INTRA UTERINE DEVICES (IUDs)

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### Time

4 Hours (Including 2 hours for class demonstration/return demonstration session)

### Learners' Objectives

By the end of the session, participants will be able to:

- ✿ Describe the types and characteristics of IUDs
- ✿ Screen clients appropriately for IUD use
- ✿ Demonstrate appropriate techniques for IUD insertion and removal
- ✿ Identify and manage side effects and complications of IUDs

### Session Overview

- ✿ Types of IUDs
- ✿ Effectiveness
- ✿ Mechanism of action
- ✿ Specific Counselling issues
- ✿ Equipment and materials
- ✿ Procedure
- ✿ Instructions to clients
- ✿ Follow-up and problem management

### Methods

- ✿ Illustrated lecture
- ✿ Brainstorming
- ✿ Discussion
- ✿ Group exercises
- ✿ Demonstration/return demonstration

### Materials

- ✿ Flip chart and markers
- ✿ Multi-media projector
- ✿ Pelvic model
- ✿ IUD insertion and removal instruments
- ✿ Commodity samples

## Content

### Intra Uterine Devices (IUDs)

#### Definition

Intrauterine device (IUD), also called intrauterine contraceptive device (IUCD) is a small plastic object inserted in the uterine cavity to prevent pregnancy.

#### Types

There are two types of IUDs

- ✿ non-medicated
- ✿ medicated

Non-medicated IUDs are made of inert plastic materials (e.g. Lippes loop, SAF-coil, which are not available in Nigerian clinics now).

Medicated IUDs are made of plastic with copper sleeve or wire around it or impregnated with hormones, which are released in small amounts over time. These include

- ✿ Copper T (Cu-T 380A) effective for 10-12 years.
- ✿ Copper T (Cu-200) effective for 3 years
- ✿ Multiload (Cu-250) effective for 3 years
- ✿ Multiload (Cu-375) effective for 8 years
- ✿ Norgestrel- T (LNG-IUD or LNG-IUS) - contains levonorgestrel- effective for 5 years
- ✿ Lippes loop - effective indefinitely

#### Effectiveness

Less than one pregnancy occurs per 100 women using an IUD over the first year (6–8 per 1,000 women). Over 10 years of IUD use- about two pregnancies per 100 women.

**These guidelines will focus on Copper IUDs, as they are the most common type of IUDs in Nigeria.**

#### Mechanism of Action

They cause inflammatory reaction in the endometrium leading to phagocytosis of sperms thus preventing fertilization. Copper ions are also spermicidal, inhibiting sperm motility and acrosomal enzyme activation so that sperms rarely reach the tube and are unable to fertilize the ovum.

Progestogen impregnated IUDs cause thickening of the cervical mucus thus changes the uterotubal fluid that hinders sperm migration and some anovulatory effects (5-15%) of treatment cycles.

## **Specific Counselling Issues**

### **Advantages**

- ✿ IUDs are highly effective and safe for majority of women
- ✿ They are reversible
- ✿ They are independent of intercourse
- ✿ They are private
- ✿ No day-to-day action is required
- ✿ IUDs are easily available
- ✿ They have no effect on lactation
- ✿ There is no drug interaction
- ✿ May help protect from endometrial cancer
- ✿ They are long-acting (Cu-T-380A is effective for as long as 12 years)

### **Disadvantages**

- ✿ Have common side effects (usually diminish after the first three months of use)
- ✿ Prolonged and heavy monthly bleeding
- ✿ Irregular bleeding
- ✿ More cramps and pain during monthly bleeding
- ✿ Complications are rare, but may occur
- ✿ Expulsion of IUD, which may lead to pregnancy
- ✿ Uterine perforation
- ✿ PID (if inserted in woman with current gonorrhoea or Chlamydia)
- ✿ IUDs do not protect against STIs/HIV/AIDS
- ✿ They require trained provider to insert and remove

## **Women who can use IUDs without restriction (WHO Category 1)**

Women who

- ✿ are 20 years or older
- ✿ have had children
- ✿ are within the first 48 hours postpartum
- ✿ are more than 4 weeks postpartum, regardless of breastfeeding status
- ✿ have past ectopic pregnancy
- ✿ have hypertension
- ✿ have deep vein thrombosis (DVT)
- ✿ have current or history of cardiovascular disease
  - stroke
  - ischemic heart disease
  - multiple risk factors
- ✿ have lupus

- ⊗ have headaches (migrainous and non-migrainous)
- ⊗ have diabetes
- ⊗ have any type of liver disease- tumor or hepatitis
- ⊗ take certain drugs – Rifampicin, Rifabutin, anti-convulsants (e.g. Phenytoin) or ARVs (e.g. ritonavir)
- ⊗ are obese
- ⊗ have uterine fibroids (without distortion of uterine cavity)
- ⊗ have cervical ectopy
- ⊗ have current breast cancer
- ⊗ have cervical intra epithelial neoplasm (CIN)
- ⊗ have past pelvic inflammatory disease with subsequent pregnancy
- ⊗ smoke irrespective of age
- ⊗ had first trimester abortion (no sepsis)

### **Women who can generally use IUDs; some follow up may be needed (WHO category 2)**

Women who

- ⊗ have menarche up to <18 years
- ⊗ are nulliparous
- ⊗ had second trimester abortion
- ⊗ have heavy or prolonged vaginal bleeding pattern
- ⊗ have endometriosis
- ⊗ have severe dysmenorrhea
- ⊗ have pelvic inflammatory disease without subsequent pregnancy
- ⊗ have iron-deficiency anemia
- ⊗ have current STI other than gonorrhea or Chlamydia
- ⊗ was diagnosed with chlamydia or gonorrhoea while already using IUD (continuation only)
- ⊗ have vaginitis including *trichomonas vaginalis* and bacterial vaginosis (initiation and continuation)
- ⊗ have increased risk for STIs (e.g. have multiple sexual partners, but report consistent condom use, or live in the area with high prevalence of gonorrhea and Chlamydia )
- ⊗ developed AIDS while using IUD and are not on antiretroviral therapy (continuation only)
- ⊗ have HIV infection or have AIDS and are on antiretroviral therapy (clinically well)

### **Use of IUDs usually not recommended in these women (WHO Category 3)**

Women who

- ⊗ are at increased individual risk of STIs, e.g. have multiple sex partners and don't use condoms consistently, or have partner with multiple sex partners (initiation only)
- ⊗ are between 48 hours and 4 weeks postpartum
- ⊗ have AIDS and not on ARV therapy or are not clinically well on ARV therapy (initiation only)
- ⊗ have ovarian cancer (initiation only; women who are diagnosed with ovarian cancer while using IUD can continue while awaiting treatment)
- ⊗ have benign gestational trophoblastic disease (GTD)

## Women who should not use IUDs (WHO Category 4)

Women who

- ⊗ are pregnant
- ⊗ have current PID (initiation only)
- ⊗ have current STIs such as gonorrhoea and Chlamydia, or purulent cervicitis (initiation only)
- ⊗ have sepsis – puerperal and post-abortion
- ⊗ have cervical cancer (pre-treatment)
- ⊗ have endometrial cancer (initiation only; women who are diagnosed with endometrial cancer while using IUD can continue while awaiting treatment)
- ⊗ have unexplained vaginal bleeding (initiation only)
- ⊗ have uterine fibroids with cavity distortion
- ⊗ have pelvic tuberculosis

## Equipment and Materials

Ensure that the following essential items are available:

- ⊗ Examination couch/insertion couch
- ⊗ Light source (torch or angle-poised lamp)
- ⊗ A trolley containing the following
  - Speculum (various sizes)
  - Tenaculum (vulsellum)
  - Sponge holding forceps
  - Uterine sound (plastic preferably)
  - A pair of scissors
  - Sterile gloves
  - Plastic dilators
  - Straight artery forceps
  - Gallipots (2)
  - IUDs
  - Inserters and introducers (where applicable)
  - Antiseptic lotion, e.g. Savlon, Hibitane, Purit
  - Sterile receiver with cover containing 1 in 2500 iodine solution or 75% alcohol
  - Bowl with lid, swabs, pads, sterile towel
- ⊗ Sodium hydrochloride bleach (e.g. Jik, Parozone) 0.5%

## Time of Insertion

### Interval and Postpartum

IUD can be inserted

- ⊗ anytime during the menstrual cycle, provided pregnancy has been ruled out
- ⊗ if the woman is within the first 12 days of her menstrual cycle, no need for a pregnancy

test or other means to rule out pregnancy

- ✿ if it is more than 12 days after the start of monthly bleeding, provider should rule-out pregnancy by other means (pregnancy checklist, pregnancy test, etc.)
- ✿ no back-up method is needed after IUD insertion regardless of timing
- ✿ immediately or within the first 12 days after abortion if there is no infection
- ✿ four to six weeks after a vaginal delivery or caesarean section (if was not inserted within the first 48 hours postpartum)

### **Postpartum IUD (PPIUD) can be inserted only by trained personnel**

- ✿ within 10 minutes post-delivery of placenta - post-placental
- ✿ after 10 minutes but within 48 hours of delivery - pre-discharge
- ✿ during caesarean section - trans-caesarean

### **After child birth**

- ✿ If not immediately after childbirth, as early as 4 weeks after childbirth for copper T IUD such as T- 380A .At least 6 weeks after childbirth for other IUDs

### **After Miscarriage**

- ✿ Immediately if no infection is present
- ✿ If there is an infection , treat and help the client to choose another effective method .After 3 months and there is no further infection ,re infection is not likely and she is not pregnant, the IUCD can be inserted.
- ✿ When stopping another method insert immediately

## **Procedure**

### **Client preparation**

- ✿ Explain the procedure of IUD insertion to the client to ensure her cooperation and relaxation
- ✿ Demonstrate the procedure with a hand held uterus or pelvic model (where available)
- ✿ Ensure that she has emptied her bladder

### **Steps**

- ✿ Do a general physical examination of the
  - breasts for abnormal masses and discharge
  - abdomen for masses and tenderness
- ✿ Perform a pelvic examination wearing examination sterile gloves
  - external genitalia — lesions, abnormal discharge
  - bimanual examination
  - note shape, size, position, tenderness, and mobility of the uterus
  - feel for the adnexa — whether ovaries are enlarged or fallopian tubes thickened and tender
- ✿ Perform speculum examination to exclude abnormal vaginal discharge, cervicitis. If infection is found/suspected, postpone insertion
- ✿ Take a pap smear (if none has been done in the past two years)



If all the above are normal

- ✿ Leave clean Cusco's/Graves speculum in the vagina
- ✿ Clean the vagina and cervix with antiseptic solution (Savlon or mixture of Chlorhexidine and Savlon)
- ✿ Grasp anterior lip of the cervix with a tenaculum (at 10 o'clock and 2 o'clock positions to minimize bleeding)
- ✿ Gently place traction on the cervix with the tenaculum to reduce the angle between the uterine body and the cervix
- ✿ While maintaining traction on the tenaculum, gently pass a uterine sound into the uterine cavity until contact is made with the fundus
- ✿ Measure the depth from the external os to the top of the fundus by withdrawing the sound and looking at the level of blood or mucus on the sound or by marking the level of the external os on the uterine sound with your index finger before withdrawing the sound.
- ✿ Load the device into the inserter
- ✿ Using the recommended insertion technique, gently introduce the loaded inserter using the withdrawal or push method (depending on IUD type)
- ✿ Observe no-touch technique in all steps, i.e.
  - load the IUD in the inserter inside the sterile package
  - clean the cervix with antiseptic
  - be careful not to touch the vaginal wall or speculum with the uterine sound or loaded IUD/inserter
  - pass both the uterine sound and the loaded IUD inserter, only once, through the cervical canal
- ✿ Withdraw the plunger and inserter tube
- ✿ Be sure to describe the steps and expected sensations to the client (you will feel a pinch, some discomfort, IUD is being put in now, etc)
- ✿ Encourage client to take slow deep breaths to help her muscles relax
- ✿ Trim the vaginal ends of the tails (string) so that approximately 5 cm (2 inches) is left beyond the external cervical OS
- ✿ Release and withdraw the tenaculum
- ✿ Inspect the cervix for any bleeding from the tenaculum points and apply gentle pressure with swab on a sponge holder for a few minutes
- ✿ Remove the speculum
- ✿ Clean the client and offer sanitary pad

## Insertion of Copper-T

Insertion of Copper-T is done using the withdrawal technique:

- ✿ Open the Copper-T wrapper carefully
- ✿ Wear sterile gloves on both hands
- ✿ After sounding the uterus, load Copper-T as follows:
  - Bend the horizontal arms of the device so that the tips are forced into the top of the inserter
  - Adjust the movable flange along the inserter so that the distance from the tip equals the distance from the external OS to the fundus as determined by uterine sound
  - Adjust the flange so that it lies in the same horizontal plane as the arms of the T
- ✿ Introduce the loaded inserter through the cervical canal and upwards until the flange rests in the external OS. The tip of the inserter should be at the uterine fundus
- ✿ Release the Copper-T by holding the plunger and the tenaculum steady with left hand and withdraw the inserter a little (about half inch with the right hand). This releases the arms of the T
- ✿ Withdraw the plunger with the left hand while holding the inserter stationary with the right hand
- ✿ Push the inserter upwards until the resistance of the fundus is felt, thus ensuring fundal placement
- ✿ Then withdraw the inserter and plunger separately
- ✿ If IUD drops on the floor, or provider touches some other surface, discard the IUD and take another pack
- ✿ Trim the strings to a length of about 5 cm

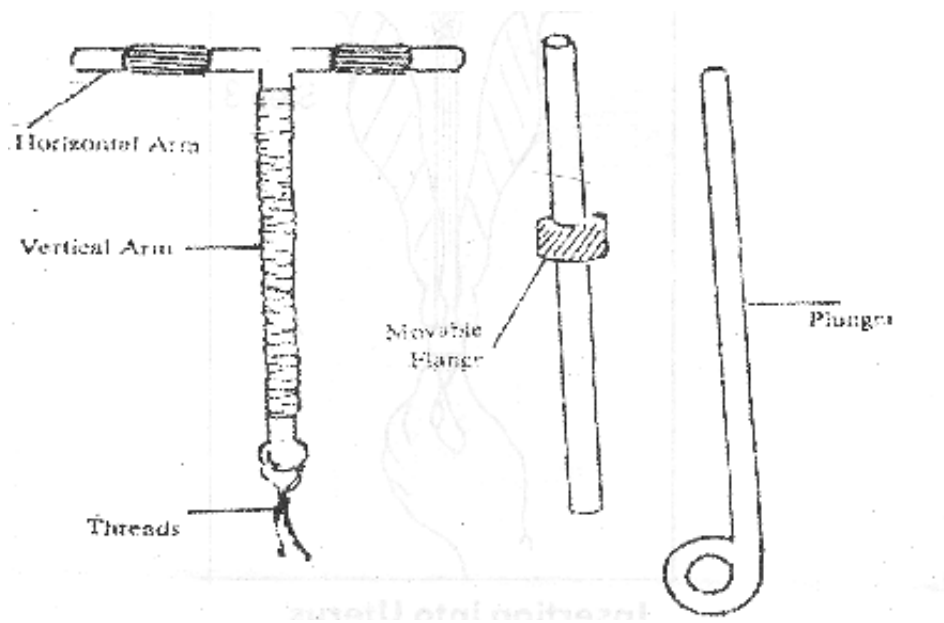
## Insertion of Multiload

The Multiload comes with the vertical stem already preloaded in the inserter. After sounding the uterus, insert as follows

- ✿ Pick up the inserter tube bearing the pre-loaded device and adjust the moveable cervical flange to the numbered mark corresponding to the uterine sound length in cm
- ✿ Carefully insert the Multiload into the uterus until it touches the fundus and the cervical flange rests against the external OS
- ✿ Withdraw the inserter to release the device into the uterine cavity
- ✿ Trim the string to about 5 cm from the external OS



Copper T inside the Pack



Copper T with Inserter and Plunger

## Insertion Technique for PPIUD

### Types of Techniques

- ⊗ Manual
- ⊗ Forceps (Kelly's forceps)

### Post-placental Insertion

- Manually insert IUD or use Kelly's forceps
- IUD insertion should be done within 10 minutes of expulsion of placenta following vagina delivery

### Trans-caesarean Insertion

- Done during caesarean section
- Massage the uterus until bleeding subsides
- Place the IUD at the top (fundus) of the uterine cavity manually or with a Kelly's placental or ring forceps
- Before closing the uterine incision, place the string in the lower uterine segment

Note: that success and effectiveness depend on high fundal placement of the IUD

### Pre-discharge Insertion

- Done within 48 hours after delivery while cervix is still open
- Insert IUD with Kelly's forceps or ring forceps

## Post-insertion procedure

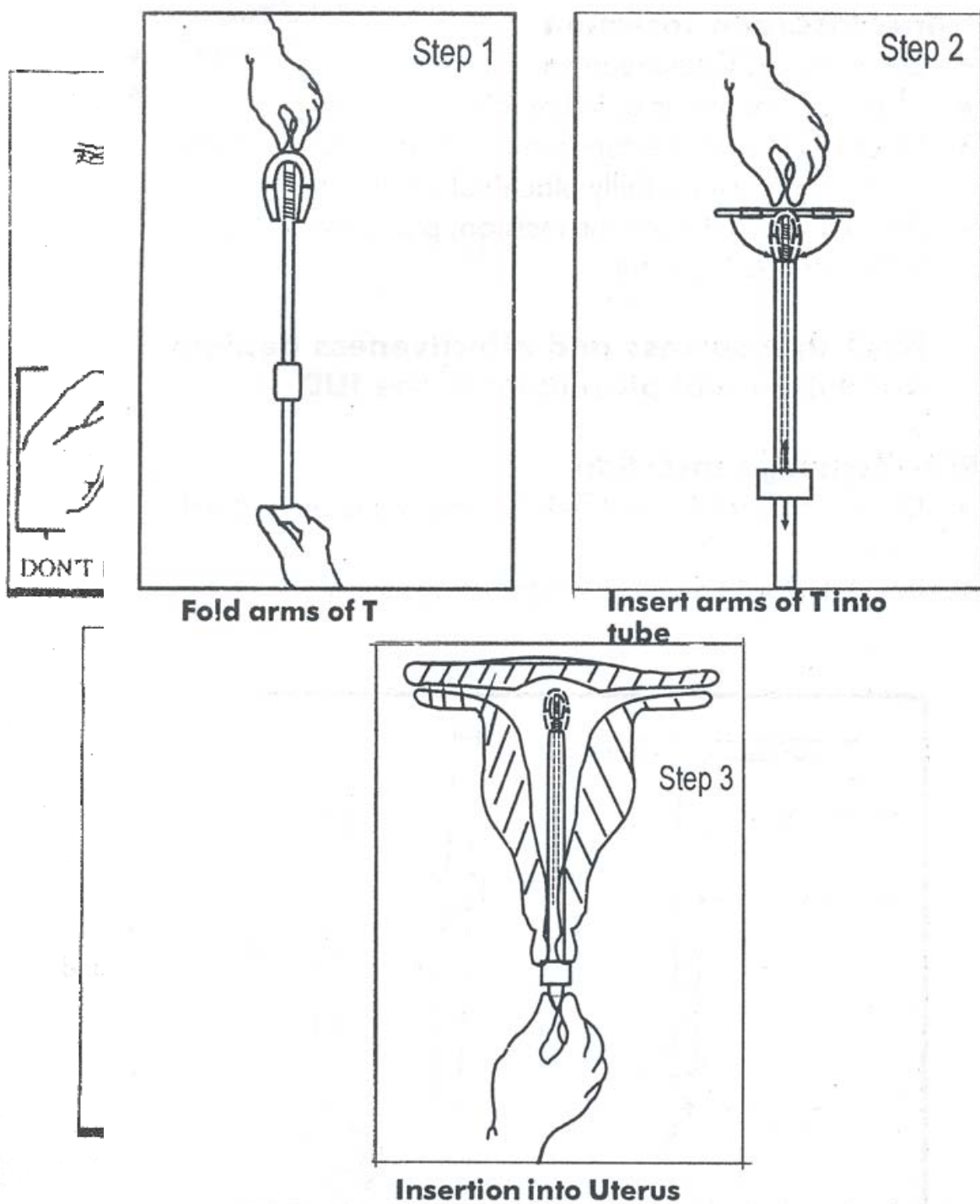
- ⊗ Ask the client about pain, fainting attacks, or any other discomfort
- ⊗ Allow the client to rest on the couch for a few minutes and then help her down
- ⊗ Record findings and give 4–6 weeks appointment

## Post-insertion Instruction for Interval IUD

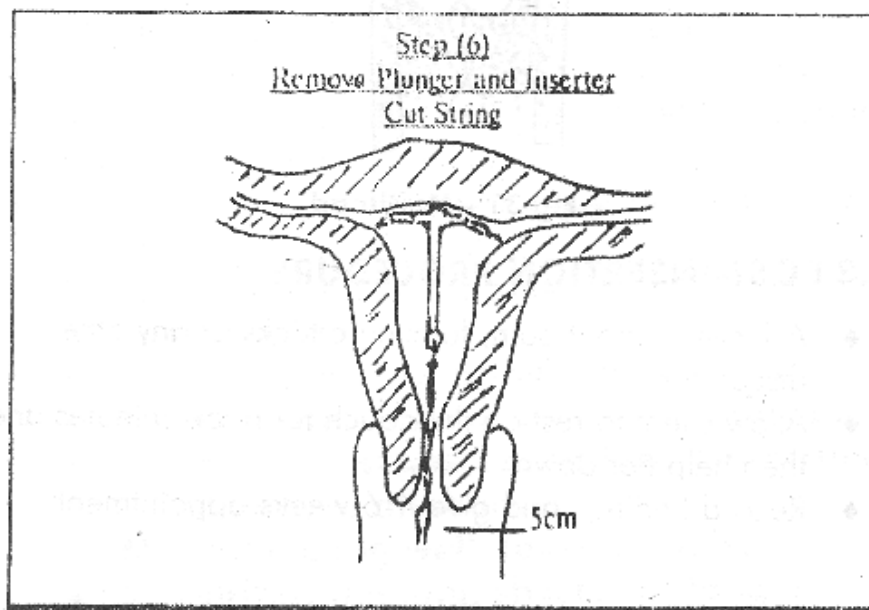
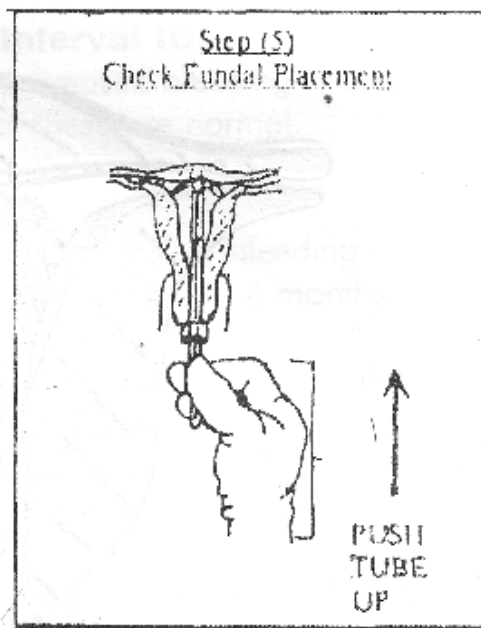
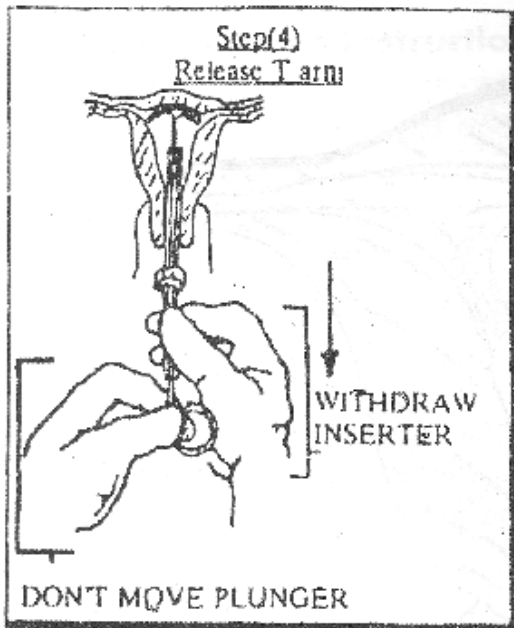
Inform client that there may be increased bleeding and/or cramping for a few days and that these are normal.

Advise her as follows

- ⊗ Heavier menstrual bleeding, and possible bleeding between periods, is common for the first 3–6 months after insertion
- ⊗ Inspect all sanitary pads or panties during menstruation because expulsion is more common during menstruation
- ⊗ Check for string after each menstrual period (recommended, but not required if woman is uncomfortable inserting fingers into vagina)
- ⊗ If at risk of STIs (e.g. multiple sexual partners, or partner with multiple partners), use condoms in addition to IUD for dual protection
- ⊗ Tell the client that she may have sexual intercourse as soon as it is comfortable for her
- ⊗ Report to the nearest family planning clinic if you notice any of the following
  - P - period late or abnormal bleeding
  - A - abnormal pain or pain with intercourse
  - I - infection exposure, such as gonorrhoea, abnormal discharges
  - N - not feeling well, fever or chills
  - S - strings missing, shorter or longer
- ⊗ Inform your physician of the presence of an IUD if you are going for any gynaecological surgical procedure
- ⊗ Maintain good personal hygiene



Steps in loading and inserting Copper-T



Steps in Loading and Inserting Copper-T

## Post-insertion Instructions for PPIUD

- ☼ Tell the client the kind of IUD she has received. Show her either a sample or picture of the IUD so that she can see how it looks and how large it is
- ☼ Indicate the type of IUD boldly on the client's card
- ☼ Explain how long the IUD will prevent pregnancy
- ☼ Assure the client that the IUD has no effect on breast milk and that she can breastfeed her baby
- ☼ Tell the client that she may have sexual intercourse as soon as it is comfortable for her
- ☼ Discuss the possibility that IUD may be expelled, especially during the first few weeks after insertion
- ☼ Tell the client that she may find the IUD if it is expelled
- ☼ Explain that the client can have another IUD inserted if she chooses
- ☼ Explain that within a few weeks, the IUD strings will probably come from the womb into the vagina
- ☼ Tell her that a health care worker will shorten the strings during a follow-up visit
- ☼ She may return before her six-week check-up if the strings are a problem
- ☼ Explain how to check for the IUD strings
- ☼ Tell the client to
  - wash her hands using soap to reduce the chances of infection
  - sit in a squatting position, or stand with one foot up on a step or ledge
  - gently insert her finger into her vagina and feel for the cervix, which feels firm, like the tip of the nose
  - feel for, but do not pull the strings because pulling it may move the IUD or cause it to be expelled
  - wait to begin checking for the strings until after six weeks postpartum
  - wash her hands again

## Follow-up

- ☼ First visit (4-6 weeks after insertion)
- ☼ Ask client about health generally
- ☼ Ask about complaints
- ☼ Ask about variations in her menstrual cycle. This should include inter-menstrual bleeding or spotting, excessive blood loss and painful menstruation
- ☼ Ask her when last she felt the strings of the device. (This is to ascertain the client complies with instruction to check the strings)
- ☼ Carry out abdominal and pelvic examination
- ☼ Inspect the cervix to confirm presence of strings, if long trim/tuck in, if short, remove and replace with another IUD
- ☼ Note any discharge, erosion, and cervicitis
- ☼ Palpate for pelvic tenderness
- ☼ Advise client on personal hygiene

## **Schedule of Subsequent Follow-up**

If all is well

- ⊗ Yearly visits until the client wishes to have the device removed or the life span of the device expires
  - Copper T-200 — 3 years
  - Copper T-380A — 10-12 years
- ⊗ Repeat the activities of first visit at each subsequent visit
- ⊗ Encourage a pap smear every two years

## **Removal of Intra Uterine Device**

### **Reasons for Removal**

- ⊗ Client desires pregnancy
- ⊗ Menopause, no need for contraception
- ⊗ Desires another method of contraception
- ⊗ Life span of IUD has expired
- ⊗ Accidental pregnancy
- ⊗ Unusual bleeding or pain
- ⊗ Pelvic inflammatory disease
- ⊗ Genital tract malignancy
- ⊗ Dyspareunia (painful intercourse)
- ⊗ Partial expulsion of the device
- ⊗ Cervical perforation
- ⊗ Uterine perforation
- ⊗ Missing strings
- ⊗ Copious vaginal discharge
- ⊗ Allergy to the device (copper types)

### **When to Remove IUDs**

Remove IUDs whenever a client insists on having it removed or when there are indications for removal. The best time to remove is during menstruation, because the cervix is slightly dilated, soft and removal is less uncomfortable.

### **Procedure for Removal**

Prepare equipment and materials as for insertion, but include alligator forceps and retrieval hook.

### **Preparation of Client**

Explain the removal procedure to the client to ensure her cooperation and relaxation.



## Steps for IUD Removal

- ✿ Ensure that the client has emptied her bladder
- ✿ Place the client in the dorsal position with the legs flexed at the hip and knees
- ✿ With sterile-gloved hand, part the labia and gently pass a Cusco's speculum
- ✿ Visualise the cervix
- ✿ Clean the cervix and fornices with antiseptic solution
- ✿ Grasp the IUD strings near the external os with artery forceps and apply gentle and steady traction to remove device
- ✿ Check that no part has broken off the device
- ✿ Show device to the client
- ✿ Clean the cervix with an antiseptic solution
- ✿ Apply a perineal pad

## Post-removal Instructions

- ✿ Explain to the client that slight vaginal spotting may continue for a few days
- ✿ If client wishes to use another method of contraception, counsel and/or initiate accordingly

## Difficulty in the Removal of IUDs

Trained family planning doctors should do the removal of IUDs. If traction, as described above, does not result in the removal of the device, or strings are not or snapped, proceed as follows:

- ✿ Probe the cervical canal with narrow artery forceps and attempt removal (if this fails, device is probably embedded in the endometrium)
- ✿ Explore the uterine cavity with alligator forceps, Sharman's curette, or retriever hook
- ✿ If this fails, dilate the cervix with small dilators and attempt removal again (cervical block may be necessary, or give appropriate analgesics)
- ✿ X-ray or scan with ultrasound to exclude partial or complete extrusion through the uterine wall. If this is found, explore the uterine cavity under general anesthesia and be prepared to remove a completely extruded IUD by laparoscopy or laparotomy.

## Management of Problems Associated with IUD

Suspected Perforation	
If perforation is suspected based on the signs such as fainting during or after insertion, pain, rapid pulse and respiration, fatigue	<ul style="list-style-type: none"> <li>⊗ Stop the insertion. If IUD was already inserted, remove it</li> <li>⊗ Place client in a horizontal position and observe for an hour</li> <li>⊗ Monitor vital signs (BP, pulse, respiration and temperature) every 5 to 10 minutes</li> <li>⊗ Check for signs of intra-abdominal bleeding (hematocrit, hemoglobin)</li> <li>⊗ If no signs of bleeding, observe for several more hours before sending home.</li> <li>⊗ Counsel to abstain from sex for 2 weeks</li> <li>⊗ Help her choose another method</li> </ul>
If intra-abdominal bleeding is suspected	⊗ If her vital signs are getting worse (rapid pulse, falling blood pressure, fainting) and or here hematocrit/hemoglobin are falling, refer to higher level of care without further delay
Bleeding Changes	
Spotting, irregular bleeding	<ul style="list-style-type: none"> <li>⊗ Reassure that many IUD users experience irregular bleeding or spotting. This is not harmful and usually becomes less after the first several months</li> <li>⊗ Suggest short course of non-steroidal anti-inflammatory drugs (NSAID) such as ibuprofen 400 mg or indomethacin 25 mg 2 times a day for 5 days</li> </ul>
Heavy or prolonged monthly bleeding	<ul style="list-style-type: none"> <li>⊗ Reassure that many women who use IUD experience heavy or prolonged menstruation. It is generally not harmful and becomes less or stops after the first several months of use</li> <li>⊗ For moderate short-term relief try (one at a time): <ul style="list-style-type: none"> <li>- Tranexamic acid 1500 mg 3 times a day for 3 days, then 1000 mg once a day for 2 days, beginning when heavy bleeding starts</li> <li>- NSAID such as ibuprofen 400 mg or indomethacin 25 mg 2 times a day for 5 days</li> </ul> </li> <li>⊗ Provide iron tablets if possible and counsel about diet high in iron</li> </ul>
If irregular, heavy or prolonged bleeding continues or starts after several months of normal bleeding or long after the IUD was inserted	<ul style="list-style-type: none"> <li>⊗ Rule out underlying condition such (e.g. infection or genital malignancy) and treat accordingly or refer to the specialist</li> <li>⊗ She can continue using the IUD while condition is being evaluated</li> <li>⊗ If bleeding is caused by STI or PID, she can continue using the IUD during treatment</li> </ul>
Severe pain in lower abdomen	
History and examination	<p>Assess for the signs/symptoms of PID and ectopic pregnancy</p> <ul style="list-style-type: none"> <li>⊗ Do abdominal and pelvic exam if possible to assess for PID symptoms such as abnormal vaginal bleeding or discharge, cervical discharge, tenderness in the ovaries or fallopian tubes, cervical motion tenderness</li> <li>⊗ Assess for symptoms such as: <ul style="list-style-type: none"> <li>- Unusual vaginal discharge</li> <li>- Fever or chills</li> <li>- Bleeding after sex</li> <li>- Nausea and/or vomiting</li> <li>- A tender pelvic mass</li> <li>- Rebound abdominal tenderness</li> </ul> </li> </ul>

	<ul style="list-style-type: none"> <li>- Abnormal vaginal bleeding or no monthly bleeding, especially if this is a change from her usual bleeding pattern</li> <li>- Light-headedness, dizziness or fainting</li> </ul>
If suspicious for PID	<ul style="list-style-type: none"> <li>⊗ Begin antibiotics immediately, e.g.</li> <li>⊗ Ciprofloxacin 500 mg bd x 5 days</li> <li>⊗ Doxycycline 100 mg tab orally twice daily x 7 days</li> <li>⊗ Metronidazole 400 mg tab orally twice daily x 14 days</li> <li>⊗ Follow-up in 48 hours</li> <li>⊗ There is no need to remove IUD unless client wants to discontinue. If she wants it removed, take it out after 2-3 days of antibiotic treatment</li> <li>⊗ Instruct client to take all medication until it is finished</li> <li>⊗ Tell patient to return to clinic 4–7 days after completing antibiotics</li> <li>⊗ Tetracycline/Doxycycline should be taken one hour before meals or two hours after meals. Avoid antacids, dairy products, e.g. milk, and mineral preparations, e.g. calcium, when taken tetracycline</li> <li>⊗ Counsel client to avoid sexual intercourse until client and partner(s) are cured; use condoms to prevent re-infections. If STI is suspected, treat partner(s)</li> <li>⊗ If IUD is removed, counsel client regarding choice of alternative family planning method until pregnancy is desired</li> <li>⊗ A client who desires another IUD can have it inserted after she and her partner were cured.</li> </ul>
If suspicious for ectopic pregnancy	⊗ Refer to a higher level provider immediately for diagnosis and care
<b>Pain and/or Cramping</b>	
If pain or cramps occurred since IUD insertion (first three months) and are linked to monthly bleeding	<ul style="list-style-type: none"> <li>⊗ Re-assure client that pain and cramps are not an unusual side effect of IUD use and usually decrease over time. They are not harmful.</li> <li>⊗ Give analgesic tablets</li> </ul>
If cramping continues and occurs outside of monthly bleeding	<ul style="list-style-type: none"> <li>⊗ Evaluate for underlying health condition (infection, partial expulsion of the IUD) and treat or refer</li> <li>⊗ If no underlying condition is found and cramping is unacceptable to the client, help her choose another method</li> </ul>
<b>Missing Strings</b>	
History and examination	<p>Ask the client</p> <ul style="list-style-type: none"> <li>⊗ Whether and when she saw the IUD come out</li> <li>⊗ When/if she last felt the strings</li> <li>⊗ When she had her monthly bleeding</li> <li>⊗ If she has any symptoms of pregnancy</li> <li>⊗ If she has used a backup method since she noticed the strings were missing</li> </ul> <p>Conduct pelvic examination to assess if IUD is still in place and for signs of pregnancy</p>
If strings are neither visible nor felt and client is not pregnant	⊗ Gently explore the endocervical canal with a narrow artery forceps or spiral tail extractor
If tail is found	⊗ Bring it down gently into the vagina, taking care not to pull it
If strings are not found after cervical exploration	⊗ Take lateral view x-ray or USS to locate the IUD

If the IUD is located within the uterine cavity	⊗ Leave it in place and explain the client that she is still protected from pregnancy, but will not be able to check for strings. Make a note in her chart that strings are not visible.
If ultrasonography or x-ray indicates that the device is in the abdominal cavity	⊗ Re-assure the client and refer to physician for removal by appropriate technique
<b>Uterine Pregnancy</b>	
If strings are visible	<ul style="list-style-type: none"> <li>⊗ Inform client of your findings and explain that IUD in the uterus during pregnancy increases the risk of preterm delivery or miscarriage (possibly septic) during the first or second trimester.</li> <li>⊗ Explain that if she is planning to continue the pregnancy, it is best to remove the IUD, although the removal procedure itself involves a small risk of miscarriage.</li> <li>⊗ If client consents, remove device by gently pulling the strings</li> <li>⊗ Refer for antenatal care, counsel client to return to clinic if abdominal pain and bleeding/spotting occurs</li> </ul>
If strings are not visible	<ul style="list-style-type: none"> <li>⊗ Refer for ultrasound if possible to determine whether the IUD is still in the uterus.</li> <li>⊗ If it is, or if ultrasound is not possible, her pregnancy should be followed closely.</li> <li>⊗ Counsel to seek care without any delay if she experience symptoms of miscarriage/infection.</li> </ul>
<b>IUD Expulsion</b>	
History and examination	<p>Ask the client:</p> <ul style="list-style-type: none"> <li>⊗ when she last felt the strings</li> <li>⊗ her last menstrual period and duration</li> <li>⊗ if there is abdominal pain/cramping with vaginal bleeding</li> <li>⊗ if IUD was seen on pad or on pants</li> </ul> <p>Physical examination</p> <ul style="list-style-type: none"> <li>⊗ Assess the breast and abdomen for signs of pregnancy</li> <li>⊗ Perform speculum and bimanual pelvic examination to check for the presence of strings and to rule out or confirm pregnancy</li> </ul>
If strings are unusually long or stem of device is at cervical os and pregnancy is ruled out	<ul style="list-style-type: none"> <li>⊗ Remove the IUD</li> <li>⊗ If client wants to continue using IUD, re-insert another one and follow-up in six weeks. If not, help her choose another method</li> </ul>
If strings are unusually long or stem of device is at cervical os, and unable to exclude pregnancy	<ul style="list-style-type: none"> <li>⊗ Remove the IUD</li> <li>⊗ Provide barrier contraceptive</li> <li>⊗ Ask client to return to the clinic in four weeks for re-evaluation</li> </ul>
If client reports that IUD came out	<ul style="list-style-type: none"> <li>⊗ Discuss whether she wants another IUD or a different method.</li> <li>⊗ If she wants another IUD, she can have one inserted at any time as long as provider is reasonably certain she is not pregnant</li> </ul>

Note: Strongly consider hospitalization or referral for hospitalization with acute low abdominal pain

- ⊗ diagnosis is uncertain
- ⊗ surgical emergency (e.g. appendicitis, ectopic pregnancy) is suspected
- ⊗ pelvic abscess is suspected
- ⊗ client is pregnant
- ⊗ client is unable to follow or tolerate outpatient therapy
- ⊗ client fails to respond to outpatient therapy
- ⊗ outpatient follow-up after 48–72 hours cannot be arranged

### **Demonstration/Return Demonstration: on IUCD insertion and removal.**

- ⊗ The items needed for IUCD insertion are displayed.
- ⊗ The visual aid(VA) for the steps in insertion procedure is displayed.
- ⊗ The procedure for inserting each IUCD is demonstrated with explanation
- ⊗ Participants are encouraged to ask questions for clarification
- ⊗ Participants are divided into groups
- ⊗ Participants are instructed to follow the steps in practicing the insertion procedure
- ⊗ The skills practiced is observed
- ⊗ Skills are corrected or reinforced
- ⊗ IUCD removal is also practiced along with the insertion technique

### **Group Exercise: on instructions for clients**

Participants are divided into 2 groups.

Group 1 = Post insertion instructions

Group 2 = Procedure for follow-up visits (6 weeks, 3/6 months)

### **Summary**

IUD remains a highly effective method if it is properly inserted and client is well informed about side effects. Therefore it is very important for providers to master the art of insertion so that clients can continue its use with satisfaction.

### **Evaluation**

Evaluation during this session is carried out by observing the following

- ⊗ Participants' ability to list the advantages and disadvantages of IUD use.
- ⊗ Ability to demonstrate the correct procedure for IUD insertion.
- ⊗ Participants' ability to present accurate post insertion instructions and correct procedure for follow-up visits.
- ⊗ Participants' ability to demonstrate the correct procedure for IUD removal.

## MODULE 5 SESSION 7: VOLUNTARY SURGICAL CONTRACEPTION (VSC)

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### Time

1 hour 30 minutes

### Learners' Objectives

By the end of the session, participants will be able to:

- ✿ Describe the types and characteristics of VSC
- ✿ Explain specific counselling issues for VSC
- ✿ Screen clients appropriately for VSC
- ✿ Describe the pre, intra – and post operative care of VSC
- ✿ Identify and manage complications of VSC

### Session overview

- ✿ Types of VSC
- ✿ Mechanism of action
- ✿ Specific counselling issues
- ✿ Procedures
- ✿ Client monitoring
- ✿ Instruction to clients
- ✿ Follow-up and problem management

### Methods

- ✿ Illustrated lecture
- ✿ Discussion
- ✿ Group exercise
- ✿ Brainstorming
- ✿ Role play

### Materials

- ✿ Writing board and chalk or markers
- ✿ Flip chart and markers
- ✿ Multimedia projector
- ✿ Male and female pelvic models(plastic), Filschle clips and Falope rings

## Content

### Voluntary Surgical Contraceptive

#### Definition

Voluntary Surgical Contraception (VSC) is a permanent method of contraception which involves a minor surgical procedure performed on the client to prevent pregnancy.

#### Types

##### 1. Vasectomy

This is the tying and cutting of the male tubes (called vas deferens) to prevent passage of spermatozoa into the seminal fluid (Figure 32). There are two approaches to the vas deferens:

- ✿ Conventional vasectomy
- ✿ No scalpel vasectomy

#### Effectiveness

Less than one pregnancy occurs per 100 women over the first year after having the sterilization procedure (2 per 1,000).

#### Method of Tying or Blocking the Vas deferens

- ✿ Ligation — removal of a segment of the vas deferens and simple ligation of both ends
- ✿ Coagulation — electro coagulation of the mucosa at both ends

Both ligation and coagulation can be done in conjunction with a technique called fascial interposition. This involves covering one ligated or coagulated end of the vas deferens with surrounding tissue (fascia). The improved effectiveness of this practice has not been documented.

##### 2. Tubal occlusion

This is the blocking or cutting and tying of the fallopian tubes to prevent the passage of the ovum through the fallopian tubes to the womb.

#### Effectiveness

Less than one pregnancy occurs per 100 women over the first year after having the sterilization procedure (5 per 1,000).

## Method of Occlusion

- ✿ Pomeroy (commonly used)
- ✿ Parkland
- ✿ Clips, e.g. Filschle clips
- ✿ Yoon/fallope rings
- ✿ Hulka

## Approaches used

- ✿ Minilaparotomy (commonly used)
- ✿ Laparoscopy
- ✿ Laparotomy

Note: Hysteroscopic/transcervical approaches are under development. The only transcervical sterilization method that is currently approved by regulatory agencies is Essure™. In most countries, including Nigeria, it is not yet available.

## Mechanism of Action

- ✿ Female sterilization involves blocking the fallopian tubes to prevent the sperm and egg from uniting. This can be accomplished by ligation, occlusion with clips or rings or electro-coagulation.
- ✿ Male sterilization (vasectomy) is the procedure that blocks the vas deferens to prevent passage of sperm. The vas deferens can be occluded by needle electrode or hot wire cautery at the cut ends or by simple ligature.

## Specific Counselling Issues

VSC should be a voluntary decision, therefore

- ✿ Explore and assess the client's reasons for choosing VSC
- ✿ Ask the client
  - How she/he knows about VSC
  - If she/he knows about VSC
  - Why she/he decides on VSC and his/her attitude to it.
- ✿ Discuss some changes in life situation which could lead the client desiring a reversal of this method (e.g. divorce, re-marriage, death of partner/child or sex preference)
- ✿ Assess the client's readiness for VSC
- ✿ Ensure that she or he meets eligibility for this method (e.g. clients with 2 or more children)
- ✿ Explore any indications of potential regret such as marital instability
- ✿ Ask the client to think about it again and schedule another meeting for further discussion.
- ✿ In the meantime encourage client to consider an alternative method
- ✿ If the client has finally chose VSC, discuss the points listed in the consent form again.



- ✿ Explain the advantages and disadvantages of VSC including the fact that it is a permanent method.
- ✿ Inform the client that there are effective temporary methods.
- ✿ Explain the surgical procedure including risks and benefits preferably using audio visual aids, such as flip charts, pelvic models, pamphlets, etc.
- ✿ Allow client to ask questions
- ✿ Let the client know that he/she can decide against the method anytime before the procedure is performed.
- ✿ Document counselling and all issues discussed, then discuss issues related to the procedure.
- ✿ Educate the client on the need for contraception before surgery (and also after surgery in case of vasectomy)
- ✿ Inform the client about what to expect in the theatre, (the medical and nursing staff, instruments that may be needed and drugs that will be used)
- ✿ Educate the client on the technique of surgical procedure and assure him/her of the safety of the procedure, using audio-visual aids.
- ✿ Identify and resolve any anxieties, doubt and rumors about VSC
- ✿ Obtain the client's signature (or mark); that of the partner (if necessary), and a witness on the consent form.
- ✿ Ask client relevant questions to demonstrate understanding of issues.

## **Advantages**

- ✿ VSC provides permanent contraception
- ✿ It is a highly effective method of contraception (99%)
- ✿ It is very safe
- ✿ It is cost effective over time
- ✿ It is not coitus related
- ✿ It is not client-dependent
- ✿ It promotes husband/wife involvement in family planning
- ✿ It has no adverse systemic effects
- ✿ It is one of the few available methods for men
- ✿ It does not affect the menstrual cycle or libido

## **Disadvantages**

- ✿ VSC requires a minor operation
- ✿ There are some risks of anaesthesia, particularly if done under general anaesthesia
- ✿ There is a slight chance of failure, but the risk is much less than for other methods of contraception
- ✿ It should be considered permanent. Reversal is expensive, not widely available, requires special skills for operation and the result is uncertain
- ✿ Female sterilization may help protect against pelvic inflammatory disease and ovarian cancer
- ✿ VSC does not protect against STIs and HIV/AIDS

End the counselling by

- ✿ asking the client to ask questions freely
- ✿ summarizing the important issues already discussed
- ✿ arranging appointment for surgical procedure
- ✿ providing temporary contraception if not already in use
- ✿ referring the client to a doctor if he/she has raised any issue beyond your competence and/or if he/she has accepted to have the VSC

## Eligibility Criteria for Sterilization

### Female Surgical Sterilization

**Category A: Accept** (there is no reason to deny sterilization to women with these conditions)

- ✿ Any parity, including nulliparous
- ✿ Postpartum less than seven days or more than 42 days
- ✿ Post-abortion without complications
- ✿ History of deep venous thrombosis
- ✿ Migrainous headaches with or without aura
- ✿ History of PID with subsequent pregnancy
- ✿ Current STIs other than gonorrhoea, chlamydia or active viral hepatitis
- ✿ High risk of HIV or HIV infected, but no AIDS
- ✿ Non-pelvic TB
- ✿ Smoking, irrespective of age
- ✿ Irregular, heavy or prolonged bleeding pattern
- ✿ Sterilization concurrent with caesarean section

**Category C: Caution** (the procedure is normally conducted in a routine setting, but with extra preparation and precautions)

- ✿ Young age
- ✿ Obesity
- ✿ Hypertension; systolic 140–159 mmHg, diastolic 90–99 mmHg
- ✿ History of stroke or ischemic heart disease
- ✿ Epilepsy
- ✿ Depressive disorders
- ✿ Current breast cancer
- ✿ Uterine fibroid with or without uterine cavity distortion
- ✿ PID without subsequent pregnancy
- ✿ Diabetes without vascular complications
- ✿ Hypothyroid
- ✿ Mild (compensated) cirrhosis or liver tumors
- ✿ Sickle cell disease or iron-deficiency anemia (Hb between 7 and 10 g/dl)
- ✿ Previous abdominal or pelvic surgery

**Category D: Delay** (the procedure should be delayed until the condition is evaluated and/or corrected)

- ✿ Postpartum 7–42 days
- ✿ Severe pre-eclampsia/eclampsia
- ✿ Prolonged rupture of membranes (24 hours or more)
- ✿ Severe antepartum hemorrhage or trauma to the genital tract
- ✿ Major surgery with prolonged immobilization
- ✿ Current ischemic heart disease
- ✿ Puerperal and post-abortal sepsis
- ✿ Current DVT/PE
- ✿ Unexplained vaginal bleeding before evaluation
- ✿ Cervical, endometrial or ovarian cancer
- ✿ Current PID, gonorrhoea, Chlamydia or active viral hepatitis
- ✿ Current gall-bladder disease
- ✿ Abdominal skin infection
- ✿ Iron-deficiency anaemia (Hg less than 7 g/dl)
- ✿ Acute respiratory disease
- ✿ Systemic infection or gastroenteritis

**Category S: Special** (the procedure should be undertaken in a setting with an experienced surgeon and staff, and other back-up medical support, including equipment for general anaesthesia)

- ✿ Elevated blood pressure; systolic more than 160 mmHg, diastolic more than 100 mmHg
- ✿ Endometriosis
- ✿ Uterine perforation after delivery or abortion
- ✿ Fixed uterus due to previous surgery
- ✿ Abdominal wall or umbilical hernia
- ✿ Multiple risk factors for cardiovascular disease
- ✿ Blood pressure 160/100 mmHg or above
- ✿ AIDS
- ✿ Known pelvic TB
- ✿ Diabetes with vascular complications
- ✿ Hyperthyroid
- ✿ Severe (decompensated) cirrhosis
- ✿ Coagulation disorders
- ✿ Chronic respiratory disease (asthma, bronchitis, emphysema, lung infection)

## **Male Surgical Contraception**

**Category A: Accept** (there is no reason to deny sterilization to men with these conditions)

- ✿ High risk of HIV
- ✿ HIV infected
- ✿ Sickle cell disease

**Category C: Caution** (the procedure is normally conducted in a routine setting, but with extra preparation and precautions)

- ⊗ Young age
- ⊗ Depressive disorders
- ⊗ Diabetes
- ⊗ Previous scrotal injury
- ⊗ Large varicocele/hydrocele
- ⊗ Cryptorchidism

**Category D: Delay** (the procedure should be delayed until the condition is evaluated and/or corrected)

- ⊗ Local scrotal skin infection
- ⊗ Active STI
- ⊗ Balanitis/epididymitis/orchitis
- ⊗ Systemic infection/gastroenteritis
- ⊗ Filariasis with elephantiasis
- ⊗ Intrascrotal mass

**Category S: Special** (the procedure should be undertaken in a setting with an experienced surgeon and staff, and other back-up medical support, including equipment for general anaesthesia)

- ⊗ AIDS
- ⊗ Coagulation disorders
- ⊗ Inguinal hernia

Note: Surgery should be postponed if there are medical conditions that increase the surgical risk e.g. acute PID, sepsis at site of infection

## **Equipment and Materials**

As indicated by technique

## **Procedure**

### **Client Preparation**

### **Assessment**

The objectives are

- ⊗ Determine the client's fitness for VSC
- ⊗ Identify any conditions that may increase the risks associated with VSC.

- ☼ Check that preliminary screening (in particular medical history, physical examination and relevant laboratory tests i.e. PCV, urinalysis) has been done

Note: A trained physician should conduct a final evaluation which should take place where the procedure is to be performed.

## Points of Informed Consent

- ⊗ Temporary methods available to the client and her/his partner
- ⊗ Voluntary sterilization is a surgical procedure
- ⊗ There are certain risks in the procedure as well as benefits (explain both to clients).
- ⊗ If successful, the operation will prevent the client from having more children.
- ⊗ The procedure is considered permanent and probably cannot be reversed.
- ⊗ The client can decide against the procedure at any time before it takes place.

## Pre-operative Information (for BTL and Vasectomy)

- ⊗ Instruct the client not to have breakfast on the day of operation
- ⊗ Ask client to be accompanied to the facility by an escort who should be an adult
- ⊗ Reassure the client and counsel on the safety of the procedure. Communication should be in the language the client best understands.
- ⊗ Explain the steps of the operation including pre-operation medication and anaesthetic/analgesics
- ⊗ Explain what pain or discomfort to expect
- ⊗ Discuss common and potential intra-operative complications
- ⊗ Instruct client how to use all medications that will be prescribed after surgery
- ⊗ Educate the client on care of the wound after surgery
- ⊗ Shave client on the table (Vasectomy)
- ⊗ In case of vasectomy, tell the client to use some back-up method e.g. condom for at least 20 ejaculations or 12 weeks after surgery
- ⊗ Explain the follow-up schedule and when client should return to facility for post-operative examination

## Client Monitoring

### Pre-operative monitoring

Check and record the following, which will provide the baseline data

- ⊗ Temperature
- ⊗ Blood pressure
- ⊗ Pulse
- ⊗ Respiration

### Intra-operative monitoring

- ⊗ Converse with the client continually to assess degree of analgesia (if local or regional anesthesia has been used)
- ⊗ Check and record the following every five minutes
  - Blood pressure
  - Pulse
  - Respiration

### Post-operative monitoring

- ⊗ Do not leave the client alone until he/she is fully alert
- ⊗ Check and record the following until client is stable

- Blood pressure every 15 minutes
- Pulse every 15 minutes
- Respiration every hour
- Temperature
- ⊗ During intra-operative and post-operative periods, observe for the following signs of danger
  - Rapid/excessive respiration
  - Restlessness
  - Rapid and/or weak pulse (over 90 beats per minute)
  - Systolic blood pressure less than 90 mmHg
  - Pallor or cyanosis
  - Respiratory rate of less than 10 per minute
  - Unresponsiveness

## Post-operative Instructions

### For vasectomy

- ⊗ Provide the client with scrotal support for about 48 hours to prevent discomfort or swelling
- ⊗ If possible, put cold compress on the scrotum for the first 4 hours, which may decrease pain and bleeding
- ⊗ Instruct the client
  - to rest from work for about 48 hours after the procedure
  - to avoid strenuous work for about one week
  - to report for consultation if he has undue pain, not relieved by simple analgesics like Paracetamol, or if he experiences
    - fever
    - bleeding
    - swelling of the operation area
    - fainting
  - to resume sexual intercourse when he feels comfortable (but not before 2-3 days after surgery), using a back-up method of family planning until 3 months after surgery (relying on 20 ejaculation is not recommended)
  - to come for sperm count test at three months if available and give an appointment. If sperm count is not available, he can still stop using back-up method as long as 3 months after surgery have passed
  - that the stitches will dissolve by themselves and they do not have to be removed (if only catgut has been used)
  - to return for follow-up appointment and removal of stitches if silk has been used on the seventh day post-surgery

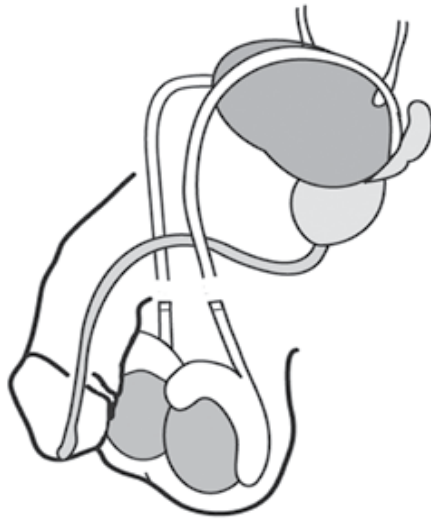


Diagram of Vas deferens after Vasectomy

### For Tubal Occlusion

Instruct the client to

- ⊗ rest at home for about 48 hours after the procedure
- ⊗ avoid vigorous work and heavy lifting for a week
- ⊗ keep incision clean and dry for 2 days (use towel-bath if needed)
- ⊗ avoid intercourse for at least one week and until it is comfortable after that
- ⊗ some abdominal pain and swelling are to be expected
- ⊗ report for consultation if she has undue pain not relieved by simple analgesics like Paracetamol, or if there is
  - fever
  - bleeding from site of procedure
  - excessive swelling
  - fainting
- ⊗ return for follow-up and removal of stitches if silk has been used on the seventh day after surgery
- ⊗ Catgut or Vicryl stitches will dissolve by themselves and need not be removed
- ⊗ If silk sutures are used it should be removed at follow-up visit.



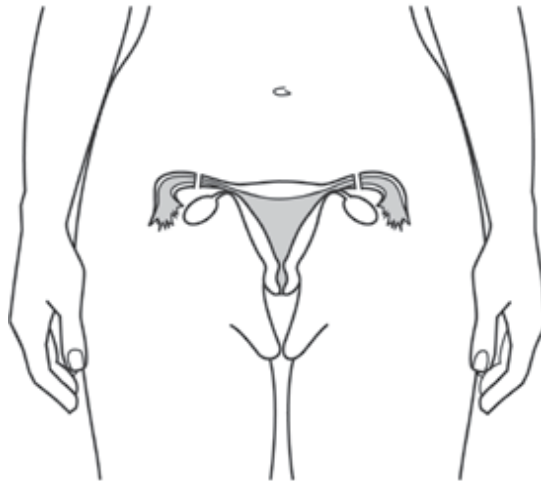


Diagram of the Fallopian Tubes after Tubal Occlusion

### Follow-up Visits

At follow-up visit (vasectomy and tubal occlusion):

- ⊗ find out if there are any complaint from the client
- ⊗ confirm that the client is satisfied with VSC and find out if the client will recommend it to others
- ⊗ allow the client to ask any questions and express his/her concerns
- ⊗ perform general physical examination
- ⊗ inspect the operation site and remove stitches if necessary
- ⊗ give appointment for semen analysis (vasectomy client) if available
- ⊗ advise the client to feel free to return to the clinic any time there is any problem even before the appointment day

### Complications

Refer clients with complications to the facility where the VSC was performed. Such complications may include

- ⊗ Infection at the incision site with or without fever
- ⊗ Abscess
- ⊗ Severe pain in lower abdomen (ectopic pregnancy in case of female sterilization failure)
- ⊗ bleeding or blood clots
- ⊗ pain lasting for months (in case of male sterilization)

### Clients who fail to Show up for Surgery

- ⊗ Trace client through the usual client tracking system and encourage client to report to the clinic
- ⊗ Give another appointment to report to the clinic

- ✿ Discuss client's reasons for missing his/her appointment and if client has any doubts, help him/her choose another method for either on-going contraception or until client can make a decision on VSC
- ✿ If client is still interested in sterilization, give another appointment for the surgery

## **Resuscitation and Emergency Equipment**

The following resuscitation and emergency equipment should be available at the facility where surgery is to be performed

- ✿ Anesthetic mask and self-inflating bags with oxygen nipple
- ✿ Oxygen tank with reducing valve, flow meter, tubing and mask
- ✿ Suction machine with tubing and two traps, and nasal airways (2 sizes)
- ✿ Intravenous fluids, drugs such as adrenaline, hydrocortisone, naloxone, etc.
- ✿ Venesection instruments
- ✿ Emergency Laparotomy instrument

## **Fertility after Use**

Both man and woman must accept the methods as permanent because reversal requires microsurgery.

## **Summary**

VSC is a permanent method of family planning. Client needs to know that the procedure is irreversible and therefore, the provision of adequate and correct information must be available to enhance his or her decision making.

## **Evaluation**

The following are observed during the session. Participants' ability to:

- ✿ list the advantages and disadvantages of VSC
- ✿ List clients for whom VSC would be indicated
- ✿ Identify correctly the situation when VSC use would be contraindicated
- ✿ Correctly describe the preparation of clients for VSC.

## MODULE 5 SESSION 8: EMERGENCY CONTRACEPTION (EC)

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### Time

1 Hour

### Learners' Objectives

By the end of the session, participants will be able to:

- ✿ Describe the types and characteristics of emergency contraceptives
- ✿ Screen clients appropriately for each type of EC
- ✿ Initiate clients on appropriate EC
- ✿ Manage side effects and complications of EC
- ✿ Institute appropriate management for failure of EC

### Session Overview

- ✿ Definition of EC
- ✿ Types of EC
- ✿ Effectiveness
- ✿ Mechanism of action
- ✿ Specific counselling issues
- ✿ Instructions to clients
- ✿ Follow-up and problem management

### Method

- ✿ Illustrated lecture
- ✿ Brainstorming
- ✿ Discussion

### Materials

- ✿ Flipcharts
- ✿ Writing board and chalk or markers
- ✿ Multimedia projector
- ✿ Commodity samples

## Emergency Contraception

### Definition

Emergency contraception (EC) includes any method that acts after unprotected intercourse to prevent pregnancy. It is a safe and effective way of preventing pregnancy after having unprotected sexual intercourse or after having unprotected sexual intercourse or after a contraceptive accident, such as condom slippage or breakage and dislodgement of diaphragm. There are currently 3 methods in widespread use worldwide

- ⊗ High dose progestin-only contraceptive pills (POPs).
- ⊗ Yuzpe Method with combined oral contraceptive pills (COCs).
- ⊗ Copper IUD insertion

### Types of Post-coital Methods

Characteristic	POPs	COCs	Copper IUD
Timing of initiation after intercourse	As soon as possible(ASAP) but can be used before 72 hours; sooner is better	ASAP but can be used before 72 hours; sooner is better	Up to 5 days
Pregnancies/100 women	Early start: 0.4% (<24 h) Late start: 2.7% (1-3 days) Average: 1.1%	Early start: 0.4% (<24h) Late start: 2.7% (1-3 days) Average: 2-3.2%	0.1%
Advantages	Fewer side effects than COCs	Wide range of COCs available for use	May be inserted 5 or more days after intercourse, but before implantation. Effective long-term contraceptive for appropriate women
Disadvantages	Less available than COCs.	Gastrointestinal side effects can be reduced with antiemetic pre-treatment.	Pain, bleeding, expulsion
Avoid use in pregnant women and women with other prescribing precautions	Avoid use in women with known pregnancy; the treatment will not be effective	Avoid use in women with known pregnancy or current severe migraine. POPs a better option for all women	Prescribing precautions for IUD insertion.

## Emergency Contraception with Emergency Contraception Pills

### POPs

- ☼ Two doses of progestin (0.75mg of levonorgestrel or 1.5mg of norgestrel in each dose). Take first dose ASAP within 72 hours after inadequately protected sex; take second dose 12 hours later (second dose may be more than 72 hours after unprotected sex).
- ☼ Ovrette (20 yellow pills for each dose; she needs 2 packs of Ovrette)

### Yutzpe method using levonorgestrel-containing COCs

- ☼ Two large doses of COCs with at least 100 ug of ethinyl estradiol and either 100 mg of norgestrel or 50mg of levonorgestrel. Take first dose ASAP within 72 hours after inadequately protected sex; take second dose 12 hours later (second dose may be more than 72 hours after unprotected sex). Try to provide ECPs to women in advance.
- ☼ The PREVEN<sup>TM</sup> Emergency Contraceptive Kit facilitates utilizing combined OCs with instructions for and pills for each dose.

### Effectiveness

<b>EC with POPs</b>	Only 1.1% of 967 women using POPs for EC became pregnant in a WHO multi-centre study. (WHO task force on Postovulatory methods of Fertility regulation Lancet August 8, 1998).	80% average reduction of pregnancy rate based on WHO perfect-use study population.	12 pregnancies per 1000 unprotected acts of sexual intercourse.
<b>EC with COCs</b>	2-3% failure rate	74% average reduction of pregnancy rate WHO perfect-use study	20-32 pregnancies per 1000 unprotected acts of sexual intercourse.

- ☼ In the above WHO study, effectiveness was greater the sooner ECPs were taken. Only 4 pregnancies per 100 unprotected acts of sexual intercourse if ECPs taken within the first 24 hours
- ☼ Soon to be published study demonstrates that ECPs remain effective for 5 days after unprotected sex.
- ☼ Taking more than number of pills specified is not beneficial and may increase risk of vomiting.

Note: If taken within 120 hours after unprotected intercourse, ECPs prevent 75% to 95% of expected pregnancies. The sooner ECPs are taken after unprotected sex, the more effective they are. Also progestin-only regimen of ECPs is more effective than combined pills regimen.

## Mechanism of Action

ECPs act by preventing pregnancy and not by disrupting an implanted embryo, i.e. never as an abortifacient.

- ✿ If taken before ovulation, ECPs disrupt normal follicular development and maturation, blocks LH surge, and inhibit ovulation; they may also create deficient luteal phase and may have a contraceptive effect by thickening cervical mucus.
- ✿ If taken after ovulation, ECPs have little effect on ovarian hormonal production and limited effect on endometrial maturation
- ✿ ECPs may affect tubal transport of sperm or ova.

## Specific Counselling Issues

Discuss the common side effects associated with emergency contraceptive pills (ECPs) with the client:

- ✿ Nausea (it does not last for more than 24 hours)
- ✿ Vomiting occurs in 20% of women
- ✿ Irregular bleeding or spotting
- ✿ Breast tenderness
- ✿ Headache
- ✿ Dizziness
- ✿ Menstrual cycle disturbance: the next menstrual bleeding may be a few days early or late

## Advantages

- ✿ ECs are safe for all women regardless of age and health status
- ✿ EC drugs exposure and side effects are of short duration
- ✿ ECs are readily available (combined oral contraceptives are more readily available for emergency contraception throughout the country)
- ✿ They are convenient and easy to use
- ✿ They significantly reduce the risk of unwanted pregnancy
- ✿ They reduce the need for abortion
- ✿ They are appropriate for young women who may have unplanned sex
- ✿ They can provide a bridge to the practice of regular contraception

## Disadvantages

- ✿ ECs offer no protection against the transmission of STIs and HIV/AIDS
- ✿ They must be used within five days of unprotected intercourse. The sooner they are taken after unprotected sex the higher the efficacy
- ✿ They are less effective than regular contraceptives
- ✿ They may produce nausea and sometimes vomiting
- ✿ They may change the time of the women's next menstrual period

## Complications

Several cases of DVT reported in women using COCs as ECPs. No increased DVT risk with POPs.

## Women who can use Emergency Contraceptives

All women can use emergency contraceptive pills safely and effectively, including women who cannot use continuing hormonal contraceptive methods. Because of the short-term nature of their use there are no medical conditions that make emergency contraceptive pills unsafe for any woman.

## Equipment and Materials

- ⊗ Progestin only pills, e.g. Ovran, Ovrette or Ovidon
- ⊗ Combined oral contraceptives, e.g. Duofem
- ⊗ Clinic card
- ⊗ Equipment for physical examination
- ⊗ Visual aids

## Initiating Method: Pregnancy testing is optional, not required

- ⊗ Offer ECPs routinely to all women who may be at risk for unprotected intercourse
- ⊗ Advance prescription increases use of EC but does not diminish use of primary method of contraception
- ⊗ Provide EC for all women who present after-the-act, acutely in need. If you dispense off-label pills in your clinic, be sure to have her remove the inactive pills to reduce risk of mistake
- ⊗ Obtain client history before prescribing EC
  - LMP, previous menstrual period, dates of any prior unprotected intercourse
  - Any problems with previous use of ECPs, COCs or POPs?
  - Breast feeding or severe headaches now? History of DVT or PE? (Use POPs rather than COCs)
  - Any foreseeable problems if antiemetic causes drowsiness
- ⊗ No physical exam/labs needed on a routine basis
  - No pelvic exam is necessary, now or in the future
  - No BP measurements needed in asymptomatic women
  - Pregnancy testing useful only if concerned about prior intercourse
- ⊗ Advise patient about possible side effects and consider other EC options (Copper IUD)
- ⊗ If prescribing COCs premedicate with long-acting antiemetic one hour prior to first ECP dose. Take one tablet of phenergan tablet. Avoid antiemetic if drowsiness will pose safety hazard. Antiemetics usually not prescribed prior to Plan B.
- ⊗ Offer appropriate number of tablets for particular ECP brand to get adequate dose.

- ⊗ Encourage patient to take first dose ASAP and second approximately 12 hours.
- ⊗ Realise that 72 hours is not the absolute limit, particularly if patient is still early (follicular phase) in cycle so ECPs could still block ovulation.
- ⊗ Consider providing EC kit now for patient to have available at home in case she has another need to use EC again.
- ⊗ Men using condoms may be provided with ECPs for their partners.

### Starting Regular Use of Contraceptive after Use of ECPs

- ⊗ Start using regular method immediately. ECPs offer no lingering reliable protection
- ⊗ If missed OCs, restart day after ECPs taken (no need to make up missed pills)
- ⊗ If starting COCs, see COC precautions and then
  - May wait for next menstruation or
  - Start OCs next day with 7 day back-up method (this will affect timing of next menstruation).

### Special Issues/Frequent Questions

- ⊗ *When in cycle should EC be offered?* Anytime except perhaps if she is having menstruation
- ⊗ *How many times in a year can women use ECPs?* No limit except that it would be better to have the patient use regular preventive contraceptive because ECPs are less effective and more expensive than other methods.
- ⊗ *What if a patient has had unprotected intercourse earlier in the cycle?* Carry out urine test to exclude pregnancy. Offer EC. Advise that EC will not work if she already has (undetectable) pregnancy, but it will not adversely affect the foetus or the pregnancy
- ⊗ *What if she used EC earlier in the month?* Offer it again; she has just delayed ovulation. Review why her primary contraceptive is failing her and remedy the situation (perhaps with a new method). Consider performing pregnancy test in this setting even though it may be too early to have become positive; counsel her about this possibility
- ⊗ *What if the pharmacy is closed or does not carry EC?* Plan ahead – provide EC by advance prescription. Check with local pharmacies, encourage stocking up with POP, ECPs

### Instructions to the Client

High dose COC formulations (those containing 50 mcg of estrogen in each pill)

- ⊗ Take two pills immediately or within 120 hours (or up to five days) of unprotected sex
- ⊗ Take additional two pills 12 hours after the first dose. Examples are Neogynon, Nontiol, Duofem, Ovral, etc.

Low dose COC formulations (those containing 30 mcg of estrogen)

- ⊗ Take four pills immediately or within 120 hours (up to five days) of unprotected sex
- ⊗ Take additional four pills 12 hours after the first dose. Examples are Microgynon 30, Nordette, Lo-Femenal, etc.



Progestin only pills (specially designated for emergency contraception)

- ⊗ Take two tablets of Postinor-2 within 120 hours (up to five days) after unprotected sex or
- ⊗ Take one tablet of Postinor-2 can within 12 hours after unprotected sex and take another tablet of Postinor-2, 12 hours after the first dose
- ⊗ For details on dosage refer to Table 6.1

### Important Instructions for Clients

- ⊗ Drinking milk or eating food with the pill or taking them near bedtime may help reduce nausea
- ⊗ The dosage needs to be repeated if the client vomits within two hours of taking ECPs
- ⊗ Counsel client about ongoing contraception and help her choose a method.
- ⊗ All methods but implants can be initiated on the same or next day after ECPs were used
- ⊗ If client wants to delay initiation until the next menstruation, instruct her to use a barrier method (e.g. condom) for the remaining part of her cycle. Provide her with condoms.
- ⊗ If the menstrual period is more than a week late or if there is a concern, client should come back or visit a referral clinic

### Follow-up

- ⊗ Provide follow-up care as follows:
  - Ask about her state of health
  - Record her menstrual date to verify that she is not pregnant
  - If not sure, do a pregnancy test
  - Discuss contraceptive option as appropriate

When ECP fails and client is pregnant

- ⊗ Explain available options to the client
- ⊗ Allow client to make a decision that is most comfortable to her
- ⊗ If client decides to continue with pregnancy, re-assure her that ECP does not have any known harmful effect
- ⊗ Refer the client to other service providers as appropriate

### Management of Problems Associated with Emergency Contraceptive Pills

Complaint	Management
To minimize nausea and vomiting	<ul style="list-style-type: none"><li>⊗ Advise client to take each dose with food</li><li>⊗ Taking the first dose at bed time may reduce nausea and vomiting</li><li>⊗ There is decreased nausea and vomiting if anti-emetics are taken as prophylaxis (routine use is not recommended)</li></ul>
If vomiting occurs within two hours of taking the first or second dose	<ul style="list-style-type: none"><li>⊗ Repeat the dose</li></ul>
Irregular bleeding	<ul style="list-style-type: none"><li>⊗ Tell the client that irregular bleeding will stop without treatment soon</li><li>⊗ Advice that next menstruation may start a few days earlier or later</li></ul>

	than expected. In case menstruation are delayed by more than a week, return for a pregnancy test
Headache and breast tenderness	<ul style="list-style-type: none"> <li>☼ Re-assure client</li> <li>☼ Give paracetamol or other pain relievers</li> </ul>

**Amenorrhoea:** If menstruation does not occur in 21 days (or more than 7 days beyond expected day of menstruation to begin), there is need to rule out pregnancy.

### Pregnancy in Spite of using ECPs

- ☼ If there is a pregnancy, the woman should be reassured that there is evidence that ECPs do not increase the risk of foetal anomalies or disruption of pregnancy once established.

### Fertility after Use

Excellent: Fertility returns after next menstruation (may be before)

### Formulation and Dosage for Emergency Contraception

Formulation	Common Brand Names	Tablets per Dose	Doses Required	Timing of Administration
EE 50 mcg +LNG 0.25	Neogynon, Noral Nordiol, Ovidon, Ovral	2	2	First dose within 120 hours of unprotected sex, second dose 12 hours later
Or EE 50 mcg +NG 0.50 mg	Eugynon	2	2	First dose within 120 hours of unprotected sex, second dose 12 hours later
EE 30 mcg LNG 0.15 mg or EE 30 mcg NG 0.3 mg	Microgynon 30, Nordette, Riveidon, Confidence, Lo- femenal, Ovral 1, Duofem	4  4	2  2	First dose within 120 hours of unprotected sex, second dose 12 hours later
LNG 0.75 mg	Postinor-2	2	1	Take within 120 hours of unprotected sex
LNG 0.03 mg or NG 0.075 mg	Microlut, Norgeston, Microval  Ovrette	25  20	2  2	First dose within 120 hours of unprotected sex, second dose 12 hours later

EE = Ethinyl estradiol; LNG = Levonorgestrel; NG = Norgestrel

*The client may repeat the dose with anti-emetics or consider administering the dose vaginally*

## Emergency Contraception with Copper IUD

### Description

Copper IUD inserted following the usual procedures, within 5 days after unprotected or inadequately protected sexual intercourse. It may be used up to 8 days after intercourse, if ovulation is known to have occurred 3 days or more after the unprotected sex.

### Effectiveness

Failure rate < 1% (only about 6 pregnancies per 1000 insertions in world's literature)

### Mechanism of Action

- ⊗ Causes endometrial changes that inhibit ovulation
- ⊗ Copper ions released appear to be directly embryotoxic
- ⊗ Rarely, may act as contraceptive, if inserted days before ovulation

### Cost

- ⊗ Extremely expensive unless used as a long-term contraceptive method after insertion as EC

### Advantages

- ⊗ The most effective post-coital method
- ⊗ May be used 2-5 days later than ECPs
- ⊗ Provide long-term protection against pregnancy following insertion

### Disadvantages

Same as using Copper IUD as contraceptive

- ⊗ Very expensive, if only used for EC and removal expected soon
- ⊗ Timing constraints of EC use may make it difficult to properly screen patients for IUD insertion (counselling, pre-insertion, etc)
- ⊗ Does not protect against STI/HIV/AIDS

Complications, Candidates for use, Prescribing Precautions, Initiating Method, Instructions for Patient Follow up, Problem Management, Fertility after use  
**(Same as using Copper IUD as ongoing contraceptive)**

## Emergency Contraception with Mifepristone (RU-486)

### Description

- Single 10mg to 25mg (China) dose of the anti-progestogen mifepristone (RU-486), taken within 5 days of unprotected intercourse. Still not approved by many major regulatory agencies in the world.

### Effectiveness

- Prevent over 98% of pregnancies
- One international study allowed initiation up to 120 hours and still found 85% overall efficacy.

### Mechanism of Action

- Block action of progesterone by binding to its receptors
- Stops ovulation if given in follicular phase (contraceptive)
- Slows endometrial maturation in luteal phase (interceptive)

### Fertility after Use

- Fertility may return later in cycle or with next menstruation.

### Summary

ECs are methods initiated to prevent undesired pregnancy after unprotected sexual intercourse by the woman. The client must be encouraged to commence more effective method as soon as possible especially if sexually active.

### Evaluation

During the session, the following were observed:

- List the types of EC and the indications for use
- State the mechanism of action of ECs
- Describe dosages for oral ECs

## MODULE 5 SESSION 9: NEW TRENDS IN FAMILY PLANNING

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### Time

1 hour 30 minutes

### Learners' Objectives

By the end of the session, participants will be able to:

- ⊗ List at least 3 sources for keeping up with new trends in family planning
- ⊗ List contraceptive methods under development
- ⊗ Describe the desirable evolution of family planning programs based on the consideration of global trends and goals.

### Session Overview

- ⊗ Resources for new trends in family planning
- ⊗ Types of new methods and methods under development
- ⊗ References

### Methods

- ⊗ Illustrated lecture
- ⊗ Discussion
- ⊗ Brainstorming

### Materials

- ⊗ Multimedia projector
- ⊗ Samples of new commodities

## Content

### New Trends

Contraceptive research is a science that is shaped by many political, sociological, economic and legal considerations. Contraceptive research succeeds when the political, economic and legal climates are favourable.

Up until now, most contraceptive research has been done by male investigators, thus it lacks particularly female orientation. A massive contribution of women's perception, insights and careful leadership is needed to make contraception the same equally shared responsibility that conception is. Equality between men and women in reproductive decision making processes is vital to progress in the whole area of Family Planning (FP) development

The search for newer, more effective, and more acceptable methods of FP is not a simple issue. Controversy, competition and confusion attend each step. Nonetheless, there is a substantial body of work being done, which can be summarized as follows

### Natural Family Planning

1. Great effort is being made to develop a “dip-stick” type of test that will reliably tell a woman whether or not she is potentially fertile by simply applying it to her cervical or vaginal mucus.
2. More effective methods of teaching partner motivation and couple support are being developed
3. An electronic thermometer has been produced which, in some studies, has predicted fertility with over 85% accuracy.

### Barrier Methods

#### Male Condom

1. One of the major complaints by male users of the traditional latex condom is that it feels cold and unnatural. Preliminary studies show that polyurethane is as effective as latex for blocking the passage of sperm, HIV and other STD organism. Polyurethane has several advantages over latex: it is stronger, less subject to deterioration under adverse conditions of heat and light, and can be used effectively with oil-based lubricants. Perhaps even more important for compliance is the fact that polyurethane condom transmits heat, causing test subjects to report a high level of user satisfaction.
2. Another complaint regarding the use of the traditional latex condom is that it reduces sensation for the male. A new design under study has a “bubble” of loose-fitting

materials that can be positioned over or near the glans penis for better sensation during intercourse. The looseness of the “bubble” means less constriction of the penis causing friction, and thus the male receives more stimulation.

## **Female Condoms**

Another form of female condom is fashioned into a kind of “G string” crotch in such a way that penetration occurs and carries the sheath into the vagina with the erect penis. Advantages are that no “insertion” is required to interrupt lovemaking, and that more physical protection is provided for both partners than with the traditional male condom.

## **Diaphragms**

Work is being done on a disposable diaphragm that would also release the spermicide nonoxynon – 9. Lea’s shield, silicone rubber diaphragm, one size fits all.

## **Cervical Caps**

The cervical cap is under further investigation. Efforts are directed towards making it easier to insert and remove, less likely to be dislodged during intercourse and less apt to be associated with unpleasant odours. Failure rates are quite high – 40% in nulliparous woman, 20% in multiparous women. Further research into improving effectiveness is being carried out.

## **Vaginal Rings**

One is presently being investigated that would release low doses of progesterone on a continuous basis. It would be particularly useful for women during lactation. Another is being developed which releases bezalkonium chloride as a local spermicide. The NuvaRing which, releases oestrogen and progestogen have been developed and is now available.

## **Vaginal Contraceptive Ring – Monthly (NuvaRing)**

### **Definition**

The NuvaRing is a combined hormonal contraceptive consisting of 5.4-cm (2 inches) diameter flexible ring 4mm (1/8 inch) in thickness. The ring is made of ethylene vinylacetate polymer. It is left in place in the vagina for 3 weeks and then removed for a week to allow the withdrawal of menstrual period.

The ring is not removed for intercourse. Douching is discouraged but topical therapies are allowed. NuvaRing releases low doses of ethinyl estradiol (15 micrograms daily) and etonogestrel, the active form of desogestrel (120 micrograms daily). Etonogestrel is the

hormone that is used in Implanon, a subdermal contraceptive implant for which FDA approval is expected soon in USA. With oral hormones there is a daily spike in hormone levels after the woman swallows each dose, followed by a gradual drop throughout the rest of the day. The vaginal ring maintains a steady, low release rate throughout wear. This method was FDA approved in November 2001.

### **Mechanism of Action**

- ✿ This method suppresses ovulation (Mulders 2001)
- ✿ Other contraceptive effects similar to combined pills

### **Effectiveness**

- ✿ Overall pregnancy rate 0.65 per 100 women-years (all first-year users (Roumen-2001))

### **Advantages**

- ✿ Withdrawal bleeding occurs in 98% of cycles, and bleeding at other times in only 6.4% cycles (Roumen-2001)
- ✿ Irregular bleeding is low in the first cycle of use (less than 5%) and continues to be low throughout subsequent cycles (Roumen-2001)

**Sexual/Psychological:** Decreased fear of pregnancy may increase pleasure for intercourse.

**Cancers/tumours and masses:** No published data; probably similar to COCs

**Others:** There are only 2 tasks for ring users to remember: Insertion and removal

- ✿ 95% of women say they cannot feel it
- ✿ 70% of partners say they cannot feel it

### **Disadvantages**

#### **Menstrual**

- ✿ Withdrawal bleeding continued beyond the ring-free interval in about one quarter of cycles (20% to 27%) (Roumen-2001)

**Sexual/Psychological:** None

**Cancers/tumours and masses:** None



## Others

- ⊗ Device – related problems were reported by 2-5% of women in European ring study sites (vaginal discomfort during intercourse, vaginal discharge, or vaginitis) (Roumen – 2001)
- ⊗ Side effects reported by 1% or more of subjects.
- ⊗ Expulsion in about 2% of users; vaginal discharge occurs in 14% of users.

## Prescribing Precautions

The WHO Medical eligibility Criteria for the NuvaRing are the same as for combined pills.

## Indication for Use

**Women who wants to avoid having something to remember to do every day, or at the time of intercourse**

- ⊗ Women wanting regular menstrual periods.

**Adolescents:** Excellent option; requires less discipline than taking pills daily

## Initiating Method

- ⊗ A new ring is inserted any time during the first 5 days of a normal menstrual cycle.

## Instructions for clients

- ⊗ The first ring is inserted any time during the first 5 days of a normal menstrual period, use additional backup method, such as condoms, for the first 7 days of ring use.
- ⊗ The NuvaRing is removed at the end of 3 weeks of wear, then, after one ring-free week, the woman inserts a new ring.
- ⊗ The woman's menstrual period occurs during the ring-free week
- ⊗ Ring removal during intercourse is not recommended; however, women who want to remove during intercourse may do so without having to use a backup method as long as it is not removed for longer than 3 hours.
- ⊗ No special accuracy is required for ring placement; absorption is fine anywhere in the vagina
- ⊗ Because the ring is small and flexible, most women do not notice any pressure or discomfort, and it is not likely to be uncomfortable for their partners during intercourse.
- ⊗ Always have 2 rings on hand in case one is lost
- ⊗ If the ring is left in place longer than three weeks, the user is still protected from pregnancy for up to 35 days by the same ring. The NuvaRing remains effective for well beyond 21 days, allowing clinicians the flexibility to determine how often they tell women the ring must be placed. For example, the ring could be reinserted on the first day of each month with no hormone-free interval (similar to taking combined pills with no hormone-free days).

## Follow Up

Similar to women on pills; ask about difficulty during removal or insertion.  
Women may need closer follow-up if they have

- ⊗ Genital prolapse
- ⊗ Severe constipation
- ⊗ Frequent vaginal infection (i.e. recurrent yeast infection)

**Fertility after Use:** Presumably excellent but no data yet.

## Adverse Event Reported by Vaginal Contraceptive Ring Users

Adverse Event*	Related ** (%)	Total (%)
Headache	6.6	11.8
Nausea	2.8	4.5
Weight increase	2.2	3.0
Breast pain	1.9	2.8
Dysmenorrhoea	1.8	2.6
Depression	1.7	2.4

\*Adverse event occurring in 1% or more of the 1,145 treated subjects

\*\*Possibly probably or definitely treatment-related as judged by investigator

Source: Adapted from Table IV incidence of adverse events. Roumen FHME, Apter D, Mulders TMT et al. Efficacy tolerability and acceptability of a novel contraceptive vaginal ring releasing etomogestrel and ethinyl oestradiol.

Human Reproduction 2001; 16:469-475.

## Other Vaginal Rings

- ⊗ Progestin – only vaginal rings: may be worn continuously
- ⊗ Progesterone daily suppositories

Note: Contraceptive vaginal rings that release only progestin have been studied. Like other progestin-only methods, however, they have a slightly lower effectiveness and slightly higher rates of spotting and bleeding between menstruations. Progestin-only rings may prove in the future to be a good option for women who are postpartum or breastfeeding or who have contraindications to estrogen containing methods.

## Other Female Barriers

- ☼ Protectaid: new vaginal sponges

## Hormonal Contraception

### New Products

Research continues to be directed towards finding new synthetic hormones, which will combine ideal contraceptive efficacy with minimum side effects

#### ☼ New Hormonal Formulations for Oral use

Several lower-dose COCs are currently available in Europe with EE levels of 10-15ug and newer progestins that are not derived from androgens but from spironolactone. These new progestins have anti-mineralocorticoid activity and anti-androgenic activity. The first of these new progestins in the U.S. is drospirinone.

- ☼ More physiological sequencing of combined pills-quadri-phasic pills e.g Natazia
- ☼ Preconceptional use of RU 486 inhibits ovulation and causes endometrial atrophy.
- ☼ Subdermal pellets, injectable microspheres or microcapsules with polymer. Hormone is released over periods up to a year. Steroid effect stops almost immediately with removal of the pellet.
- ☼ Monthly injectables such as Lunelle are currently available.

### Injectations - Lunelle

#### Description

Lunelle is a 0.5 cc suspension containing 25mg medroxyprogesterone acetate and 5mg estradiol cypionate injected intramuscularly into the deltoid or gluteus maximus muscle every 28+5 days (ideally every 28 – 30 days). Estradiol cypionate is metabolized to estradiol in the bloodstream. Brand names: Lunelle, Lunella, Cylco-Provera, Cyclofem, Ciclofemina, Feminena and HRP 112.

#### Mechanism of Action

Same as COCs. Primary mechanism is suppression of ovulation

#### Effectiveness

Perfect use failure rate in first year 0.05%

Typical use failure rate in first year: 3%

#### Advantages

- ☼ Excellent cycle control after first few cycles
- ☼ Decreases ovulatory pain (mittelschmerz) and dysmenorrhoea

- ⊗ Prevents internal haemorrhage from ovulation in women with coagulation defect
- ⊗ Prevents haemorrhagic corpus luteum cysts
- ⊗ Combined injection users are less likely to experience bleeding pattern changes than users of progestin-only injectables
- ⊗ May enhance sexual enjoyment due to diminished fear of pregnancy
- ⊗ Convenient: one injection dose provides up to 33 days protection. No disruption at time of intercourse; facilitates spontaneity
- ⊗ 10 days window of time 28+5 days (ideally every 28-30 days) over which injections may be given (flexibility!) In average woman, ovulation on Lunelle actually is suppressed for about 40 days which is more than 28+5 days.
- ⊗ Effectiveness, convenience, rapid reversibility and privacy
- ⊗ May diminish adverse effects on triglycerides seen with COCs (on clinically demonstrated benefits as of the present time)
- ⊗ Less effect on clotting factors than COCs; No clotting or cardiovascular complications in WHO studies.

## Disadvantages

- ⊗ First period usually comes 2-3 weeks after first injection
- ⊗ Increase number of days of spotting/bleeding in first month of use. Excessive bleeding in some women. Then predictable pattern established which closely corresponds to patient's injection schedule.
- ⊗ Amenorrhea in 1% (first cycle) to 4% (60<sup>th</sup> week) of cycles. In cycles 2-12, 15% of Lunelle users experienced a missed period
- ⊗ Depression, anxiety, irritability, fatigue, other mood changes or decreased interest in sexual intercourse may develop (same as COCs).
- ⊗ Fear of needles may preclude use of this method
- ⊗ Must return each month for reinjection (every 28+ 5 days); (Client does not have to return if she has a friend or school nurse to administer shots). May be confused with the 13-weeks/3 months regimen called Depo-Provera
- ⊗ The annual cost of the medication and injection may exceed the cost of any reversible contraceptive
- ⊗ Weight gain was the leading cause of method-related discontinuation in U.S. trials.
- ⊗ If side effects develop, a woman must wait 4-6 weeks for symptoms to subside
- ⊗ No protection against STIs/HIV/AIDS, must use condom if at risk
- ⊗ Mastalgia reported and other hormonal side effects.

## Complications

Inflammation of the injection site may occur

## Women who can use

- ⊗ Women who are candidates for estrogen/progestin combined hormonal medication and who
  - Do not want to have to remember to take a pill daily and desire greater efficacy than pills.

- Appreciate convenience of injections and desire more regular menstruation than women experience with DMPA.
- Have had bleeding irregularities on DMPA or Norplant
- Want private method
- 

**Drug Interaction:** Unknown, but may be similar to OCs.

- ⊗ Aminoglutethimide may decrease serum medroxyprogesterone acetate.

### Initiating Method

- ⊗ A pelvic examination is not necessary to initiate this method.
- ⊗ First injection is to be given in the first 5 days after onset of menstruation, within 10 days of an abortion or 4 weeks postpartum (unless breastfeeding)
- ⊗ Could also be given at other time in cycle if reasonably certain patient is not pregnant. If given at other time, recommend backup for 7 days.

### Instructions for Client

- ⊗ No backup method needed if started within 5 days of menstruation.
- ⊗ Expect first menstruation early (approximately 2 weeks after injection)
- ⊗ Return in 28+5 days (22-33 days) for next injection (ideally every 28-30 days).
- ⊗ Re-injections are not timed by your menstruation but by the calendar
- ⊗ Each subsequent menstruation depends on timing of previous injection

### Follow up

- ⊗ What is happening to your menstrual periods?
- ⊗ Have you had pain at the injection site?
- ⊗ Have you gained 5 lbs (2.5kg) or more?
- ⊗ Have you had the feeling that you might be pregnant?
- ⊗ Are you having problems returning on time for injections?
- ⊗ Do you plan to have children? Or do you plan to have more children?

### Problem Management

- ⊗ Similar to COCs
- ⊗ If a woman has heavy or prolonged menstruation, injection of Lunelle after just 21-23 days may decrease bleeding
- ⊗ If there is pain or infection at injection site.

## **Fertility after Use**

- ⊗ Excellent return to baseline fertility: 2-month delay from last injection
- ⊗ Fertility returns considerably faster than with Depo-Provera; five months after the last Lunelle injection, nearly twice as many users are able to conceive compared to women using Depo-Provera (Kaunitz – 1999)
- ⊗ Pain or infection at injection site

## **Long-acting Injectables - for both Males and Females**

### **For males**

Use of testosterone derivatives such as testosterone enanthate, either alone, which effectively depresses spermatogenesis, but may interfere with erection; or with Luteinizing Hormone releasing Hormone antagonist to preserve libido. Also combination of progestin and testosterone can be used.

### **For females**

A search for effective product for monthly injection, thus permitting withdrawal bleeding and avoiding the irregular menstruation, these are major reasons for discontinuing the familiar three-monthly injections

Use of Gonadotrophin Releasing Hormone (GnRH) analogs. Very effective as contraception, however side effect remains as major obstacle: liver cancer, arteriosclerosis, and erectile dysfunction.

## **Broader Possibilities of Use**

If safer hormonal contraception can be developed, then new applications become immediately apparent. Much research is being done in the realm of extending steroid use in traditionally difficult contraceptive phases of a woman's life.

1. Postpartum
2. Women below 14 and above 35
3. Peri-menopausally – providing both contraceptive protection and the relief of menopausal symptoms.

## **New Delivery Systems**

1. Skin patches – both one-day and seven-day models are under study
  - A weekly patch “Ortho Evra” is currently available and details are as follows

## Patches – Weekly Ortho Evra Patch

### Description

One OrthoEvra patch is worn for one week for each of 3 consecutive weeks, usually on the lower abdomen or buttocks. It can also be applied to the upper outer arm or to the upper torso (except for the breasts). The fourth week is patch-free during this week the woman has her period. This 4.5-cm square patch delivers 20 micrograms of ethinyl norgestimate daily (Grimes – 2001). It takes 2 days to achieve therapeutic levels of hormones after application of patch.

### Mechanism of Action

The patch prevents pregnancy in the same ways that combined pills do.

### Cost

The patch will cost approximately the same as one cycle of pills.

### Effectiveness

Among perfect users (users who apply transdermal contraceptive patches on schedule and each patch remains in place for the full week), only 3-6 in 1,000 women (0.3-0.6%) are expected to become pregnant during the first year. Pooled data from three contraceptive efficacy studies (22,155 treatment cycles) using life table analysis found an overall failure rate of about 1% (0.8% or 8 pregnancies per a 1000 women through 13 cycles) (Zieman – 2001)

In a multicentre trial of 1417 women randomized to use the patch (n=812) or the oral contraceptive, Triphasil (n=605), the pregnancy rate was lower (but not significantly lower) with three patch than with the pills. There were 5 pregnancies among women using the patch (1 user failure and 4 method failures). (Audet – 2001) of 9 pregnancies in the 3 clinical trial of the Evra patch, 5 were in women who were markedly overweight (women more than 90 kilograms or 198 pounds). (Zieman – 2001). One of their studies was an open-label study of 1,672 women weighing 90kg or more (Smallwood-2001). There are no data available about typical failure rates, but compliance (correct and consistent use) was significantly better among patch user compared to pill user.

### Advantages

**Menstrual:** Like combined pills

### Sexual/Psychological

- ✿ May enhance sexual enjoyment due to diminished fear of pregnancy
- ✿ Nothing to do on a daily basis.
- ✿ Does not interrupt intercourse

**Cancers/tumours and masses:** No data yet; benefits probably quite comparable to combined pills

## Others

- ☼ Option throughout the reproductive years. Age is not a reason to avoid the Patch. For some women compliance may be easier than taking a pill everyday. (Audet-2002). If the patch remains on up to 2 days too long, it remains effective. In randomized trials compliance was perfect in 88.2% of participants' cycles using the patch. This was significantly better than women placed on pills (in 77.7% of women's cycles on pills compliance was perfect). (Audet – 2001).
- ☼ Evra may be used like continuous OCPs – i.e. 9 patches in a row then a 7 day patch-free interval (Guillebaud – Personal communication 10/14/01)

## Disadvantages

**Menstrual:** In the first cycle about one-fifth of patch users experienced breakthrough bleeding or spotting. There were no statistically significant differences between the patch and COCs with regard to breakthrough bleeding in any cycle in the randomized trial of the patch Vs Triphasil (Audet – 2001)

**Sexual/Psychological:** Spotting scanty or missed menstruation possible.

- ☼ Lack of protection against sexually transmitted infection (STIs)
- ☼ Among 812 on the patch, 3 serious adverse events were considered possible or likely related to use of the patch, including 1 case of pain and paraesthesia in the left arm, 1 case of migraine and 1 case of cholecystitis (Audet – 2001)
- ☼ Must remove and replace patch weekly. Application site problems include partial detachment (2.8%) or, complete detachment (1.8%) (Audet – 2001) 2.6% of women discontinued using the patch because of application site reactions. Problems did not increase over time. (Audet – 2001).

## Complications

- ☼ Nausea occurred in 20.4% of women receiving the transdermal contraceptive patch vs 18.3% of women using oral contraceptives; the patch was discontinued by 1.8% of women because of nausea. (Audet-2001)
- ☼ Breast discomfort was greater in women using the patch than in women on the pill. The difference was significant only in cycles 1 and 2 (15.4% vs 3.5%) of women using the patch and in 0 to 1.7% of women of pills (not statistically significant). (Audet-2001)
- ☼ Headaches were as likely to occur in women on the patch (21.9%) as in women on the combined pill (22.1%).



## Women who can use

- ⊗ Women who desire the patch are the same as those for combined pills
- ⊗ Women wanting regular menstrual period.

Adolescents: Excellent option, particularly for teenage women unable to remember to take pills on a regular basis (Archer, 2002).

## Women who cannot use

- ⊗ Precautions for the patch are the same as those for combined pills
- ⊗ Women weighing more than 90kg (198lbs) are not good candidates for the patch.

## Initiating Method

- ⊗ A pelvic examination is not necessary prior to starting this method (Steward – 2001)
- ⊗ It is usually recommended that the first patch be placed on the first day of the next menstrual period. It may be placed anytime in the first 5 days after a period begins without needing to use a backup contraceptive.

## Instructions for Client

- ⊗ If the PATCH-FREE interval is lengthened (late re-start) there is risk for pregnancy (as with pills). If this interval is more than 9 days, and had unprotected coitus in the past 5 days, consider using EC.
- ⊗ No band – aids, tattoos, or decals on top of patch.

## Follow up

- ⊗ What is happening to your menstrual periods?
- ⊗ Have you experienced skin irritation?
- ⊗ Has your patch ever come off partially or completely?
- ⊗ Have you had problems remembering to replace your patch each week for 3 weeks followed by a week of no patch?
- ⊗ Do you plan to have children? Or do you plan to have more children?

## Fertility after Use

Likely the same excellent return of fertility as COCs

- ⊗ Testosterone patch combined with slow release progestin implant being developed for male use.
- ⊗ Mucosal “buckles” – a medicated staple-like device placed in the oral or vaginal mucosa. Constant hormone release provides continuous contraception. This route of administration

permits use of lower dosages, and almost immediate cessation of steroid effect with removal of the “buckle”.

- ⊗ Sublingual progesterone – effective low-dose contraception for breastfeeding women.
- ⊗ Luteinizing Hormone Releasing Hormone (LHRH) analogs – used as a nasal spray to inhibit ovulation
- ⊗ Implants: 2-implant system with GnRH and androgen being developed for male us.

## **Intra-Uterine Devices**

1. Progesterone releasing IUCDs, already on the market, decrease cramping, blood loss, and the incidence of infection. Studies continue on both short-term models, and on a slow-release model which could be effective for as long as seven years.
2. Post partum: Work is being done on a flexible copper IUCD to be fixed into the uterus, and on others which are shaped to reduce the higher expulsion rate usually experienced with postpartum insertion.
3. Gynefix Copper IUD (Multiload Copper IUD): 5 sleeves of copper on a string that has one end embedded in fundus and other end protruding through cervix for monthly monitoring. IUD has low expulsion rate and cumulative 3-year failure rate of 0.5%.

## **Ultrasound**

Ultrasound has been shown to suppress spermatogenesis in both animals and humans without demonstration of serious side effect.

## **Gossypol**

Gossypol, a derivative of cottonseed oil has been demonstrated to depress spermatogenesis with an effectiveness rate of 99%. Potassium depletion has been reported in some users and this may lead to cardiac arrhythmias. The reversibility of gossypol-induced sterility is not uniform. Triptolide is another anti-sperm compound being investigated for contraceptive use.

## **Sterilisation**

### **Tubal Sterilisation**

1. In addition to the many permanent and temporary surgical techniques, which are already being used, experiments with chemical tubal sterilization are being done, for example tubal sclerosis using iodine. Quinacrine sterilization is still quite controversial.
2. Essure- these are micro-insert containing polyethelene terephthalate placed into the fallopian tube. It induces fibrotic reaction and tissue growth around it resulting in the occlusion of the tube within three months. One year effectiveness is > 99.8%. Procedure is an office procedure and

thus a major advantage. Complications include failure to place the micro-insert in the first procedure, expulsion, ectopic pregnancy and infection.

## **Vasectomy**

1. Vas deferens blockade: injecting a polymer into the lumen of the vas causes a barrier to the passage of sperm. It also lowers the pH of the vas, which would interfere with the motility of any sperm that might make their way past an incomplete block. Reversibility is an obvious advantage.
2. Chemical vasectomy: preliminary studies in animals show that the injection of zinc arginine into the epididymis causes aspermia without significant changes in the testes or prostate glands. Human trials are planned.

## **Contraceptive Vaccine**

Much work is being done in the field of developing an immunological approach to contraception in both males and females. The use of peptides from the follicular fluid seems to have an inhibiting effect on FSH secretion. Luteinizing Hormone Releasing Hormone (LHRH) and its analogs are being investigated. Human Chorionic Gonadotrophin (HCG) shows promise. It will undoubtedly be a number of years before any of these “vaccines” becomes marketable. Vaccines are currently in phase 1 trials.

Finally family planning service providers play an integral role in developmental research. They practice at the interface between method and consumer. Their alertness to problems of method use prompts new investigations. Their contact with clients permits field-testing. Their ability to perceive their daily work with a broad perspective maintains the challenges of their unique opportunity to assist couples in the management of their reproductive life.

## **Summary**

Family planning is evolving constantly with efforts to improve upon existing methods and develop new methods with a view to providing safe and effective contraceptives that have minimal side effects. Main areas of focus include male method and contraceptive vaccines.

## **Evaluation**

During the session, the following observations are made:

- ☼ The content of participants' questions
- ☼ Participant's ability to list sources for keeping abreast with new family planning trends
- ☼ Mention at least 3 types of new contraceptive methods discussed.

## ***MODULE 6***

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## MODULE 6

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### CLINIC MANAGEMENT AND QUALITY OF CARE

The aim of this module is to provide the participants with the knowledge and skills needed to manage family planning clinic and provide quality services. It also introduces the concept of MIS in family planning.

**Session 1:** Steps in Clinic Setting

**Session 2:** Management Information System in FP service delivery

**Session 3:** Introduction to MIS tools in FP

**Session 4:** Elements of quality of care

## MODULE PLAN - CLINIC SETTING AND CLINIC MANAGEMENT

TITLE	DURATION	OBJECTIVES	METHODS	MATERIALS
<b>Session 1:</b> Steps in clinic setting	1 hour	<ul style="list-style-type: none"> <li>Discuss steps in clinic setting</li> <li>Discuss the key elements of implementation</li> <li>List ways of commodity storage</li> </ul>	<ul style="list-style-type: none"> <li>Brainstorming</li> <li>Lecture</li> <li>Discussion</li> </ul>	<ul style="list-style-type: none"> <li>Flipchart and markers</li> <li>Multimedia projector</li> </ul>
<b>Session 2:</b> Management Information System in family planning services	30 Minutes	<ul style="list-style-type: none"> <li>Understand the role of MIS in family planning setting</li> </ul>	<ul style="list-style-type: none"> <li>Brainstorming</li> <li>Discussion</li> <li>Group work</li> </ul>	<ul style="list-style-type: none"> <li>Flip chart stand/ paper</li> <li>Markers</li> <li>Chalk</li> <li>Multimedia Projector</li> <li>Lap top</li> </ul>
<b>Session 3:</b> Introduction to MIS Tools	1 hour	<ul style="list-style-type: none"> <li>Identify the various tools utilised in a Management Information System for family planning services and their uses</li> <li>Differentiate between different tools in terms of function and relevance to their work</li> <li>Enter basic data relevant to the work and how to utilise it in programme implementation</li> <li>Identify the sample MIS forms and explain their uses.</li> </ul>	<ul style="list-style-type: none"> <li>Brainstorming</li> <li>Discussion</li> <li>Group work</li> <li>Individual exercise</li> </ul>	<ul style="list-style-type: none"> <li>Sample MIS tool/ forms</li> <li>Rulers</li> <li>Pencil</li> <li>Erasers</li> <li>Papers</li> <li>Flipchart stand/paper</li> <li>Markers</li> <li>Multimedia Projector</li> <li>Lap top</li> </ul>
<b>Session 4:</b> Elements of Quality of Care	45 Minutes	<ul style="list-style-type: none"> <li>Define quality of care</li> <li>State the elements of quality of care</li> <li>Describe the benefits of quality of care</li> </ul>	<ul style="list-style-type: none"> <li>Brainstorming</li> <li>Discussion</li> <li>Lecture</li> <li>Case studies</li> </ul>	<ul style="list-style-type: none"> <li>Flip Chart stand/paper</li> <li>markers</li> <li>Multimedia projector</li> <li>Lap top</li> </ul>

## MODULE 6 SESSION 1: CLINIC SETTING AND MANAGEMENT

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### Time

1 hour

### Learners' Objectives

By the end of the session, participants will be able to:

- ✿ Discuss steps in clinic setting
- ✿ Discuss the key elements of implementation
- ✿ List ways of commodity storage

### Session Overview

- ✿ Definition
- ✿ Steps in clinic setting
- ✿ Key elements of implementation of clinic activities
- ✿ Contraceptive storage guideline

### Methods

- ✿ Brainstorming
- ✿ Lecture
- ✿ Discussion

### Materials

- ✿ Flip chart and markers
- ✿ Multimedia projector

## Content

### Clinic Setting and Clinic Management

In setting up a Family Planning clinic, the CSP will have to go through the four steps of the management process, which are:

1. Needs assessment
2. Planning
3. Implementation
4. Monitoring and Evaluation

#### Steps in Clinic Setting

Assessment:

Conduct the community needs assessment:

- ⊗ Gather information to assist in planning e.g. type of service, staff, space
- ⊗ Gather information to assist in how to expand a service
- ⊗ Gather information to assist in planning and conducting community out-reach activities
- ⊗ To document a need(s) that is beyond the clinic's ability to resolve

#### Steps for Community Need Assessment:

These steps help identify the need and set the objectives for service as well as identify needs that are beyond the capability of a clinic to resolve. Community assessment includes the following:

- ⊗ Population (number of women needing family planning services)
- ⊗ Other health facilities available with the community
- ⊗ Availability of resources (materials, e.g. motorable roads, existing health facilities staff, self help project, trained Family Planning Providers)
- ⊗ Community activities that may interfere with client flow, aiming at high clinic census.
- ⊗ Location to clinic site

This information can be obtained by gathering information from community leaders, traditional leaders, women's groups, reviewing of records and reports (official or published) health services reports, clinic/hospital records and statistics.



## Planning

Planning is to prepare for implementation and evaluation of decisions and to set up a future course of action for the family planning clinic. It deals with decisions about objectives, activities and resources by systematically considering who, what, where, when and how much will be needed to achieve set objectives

## Objectives

Objectives are set by stating the desired outcome in a way that is specific, measurable, attainable, realistic and time bound to give direction and evaluate services offered. Use the following acronym:

S - Specific  
M - Measurable  
A - Attainable  
R - Realistic  
T - Time bound

## Activities

- ⊗ Set up family planning clinic (if not available within the community) or integrate/incorporate family planning clinic into existing health facility
- ⊗ Make staff available to man the clinic. Employ and/or train staff
- ⊗ Provide family planning commodities to the clinic

## Materials

**Infrastructure:** The physical layout of the family planning clinic will require adequacy of space with a consideration for privacy in all areas

## Clinic Requirements

Minimum requirements for a family planning clinic include:

- ⊗ Space for reception, consulting, counselling, examination, procedures, and storage (2 rooms)
- ⊗ A theatre and a recovery room for voluntary surgical contraception
- ⊗ Toilet facility

## **Furniture/Equipment/Materials**

- ✿ Examination table/couch (1)
- ✿ Desks (2)
- ✿ Chairs for staff and clients (4)
- ✿ Benches for clients (2)
- ✿ Stool for the examiner (1)
- ✿ Sink with running water or a bowl in a stand (1)
- ✿ Filing cabinet for record and files (1)
- ✿ Cupboard for storing contraceptives (1)
- ✿ Desk and chair for receptionist (optional) (1)
- ✿ Table for sterilizer (1)
- ✿ Cabinet to store equipment and supplies (1)
- ✿ Chalkboard for IEC illustration (1)
- ✿ Flip chart stand, blackboard, painted sidewall (1)
- ✿ Assorted IEC materials
- ✿ Cotton wool/gauze (12 rolls)
- ✿ Sanitary pads (24 packets)
- ✿ Disposable gloves (size 7) (200 pairs)
- ✿ Latex rubber gloves (sizes 6, 7 and 8) (72 pairs)
- ✿ Stove, lantern, kerosene and matches (as needed)
- ✿ Disinfectant (sodium hypochlorite, e.g. household bleach) (50 liters)
- ✿ Antiseptic lotion (such as Savlon) (5 liters)
- ✿ Soap for washing hands (24)
- ✿ Acetic acid (2 liters)
- ✿ Wooden spatula (200 pieces)

Note: Replenish as required

## **Linen**

- ✿ Mackintosh (10)
- ✿ Draw sheets (6)
- ✿ Dirty linen bag (2)
- ✿ Hand towels (6)
- ✿ Sterile linen and drapes for implants and VSC (16)

## **Instruments**

- ✿ IUD kits (6)
- ✿ Contents of the IUCD insertion kit vary, depending on the source of supply. However, it should contain the following:
  - 3 vaginal specula (1 large, 1 medium, 1 small)
  - 1 Vulsellum or Tenaculum
  - 1 gallipot
  - 1 pair of blunt-nosed scissors
  - 1 pair of latex rubber gloves
  - Uterine sound

- 2 sponge holding forceps
- Inserter
- IUD
- ✿ IUD remover hook (2)
- ✿ Implant insertion/removal kit (6)
  - Sterile/clean dry surgical drape
  - Pair of sterile latex gloves
  - Syringe (5 or 10 ml) and 2.5 to 4 cm long needle (22G)
  - Size No. 10 trocar with plunger
  - Scalpel with size No. 11 blade
  - Ordinary band aid or sterile gauze with surgical tape
- ✿ Instrument trolleys (2)
- ✿ Cheatle forceps (1)
- ✿ Forceps holding jug (1)
- ✿ Sims specula (1 large, 1 medium) (2)
- ✿ Blunt nose scissors (2)
- ✿ Alligator forceps (2)
- ✿ Remover hook (2)
- ✿ Large kidney dish (1)
- ✿ 20 cm by 12.5 cm rectangular covered tray for sterilizing solution for Lippes loop (2)
- ✿ Graduated plastic uterine sound (2)
- ✿ Plastic buckets with lids (1 for dirty cotton wool and used disposable gloves, 1 for contaminated linen and 3 for cleaning) (5)
- ✿ MVA kit (where necessary) (2)
- ✿ Fitting rings (for diaphragm) (1 set)
- ✿ Stethoscope (2)
- ✿ Blood pressure apparatus (sphygmomanometer) (1 small and 1 large cuff) (2)
- ✿ Torch with battery or angle-poised lamp (2)
- ✿ Adult scale (1)
- ✿ Brushes (for hand, instrument and general scrubbing) (10)
- ✿ Autoclave (1)
- ✿ Autoclave drum (1)
- ✿ Screen (1)
- ✿ Utility gloves (12)
- ✿ Clinical thermometer (oral) (2)
- ✿ Pedal bin (1)
- ✿ Brooms (20)
- ✿ Mopping bucket and mop stick (6)
- ✿ Flannels for dusting (12)
- ✿ Electric sterilizer (1) **OR**
- ✿ Stove and 10 liters size covered aluminum pot (2)

## Stationery

- ✿ FMOH-approved client record cards (200)
- ✿ FMOH-approved management information system forms for:
  - Monthly report (200)

- Daily activity (200)
- Commodity supply (200)
- Commodity request (200)
- Referral forms (200)
- ⊗ Book-keeping ledgers for revenue generated (2)
- ⊗ Informed consent form for voluntary surgical contraception (100)
- ⊗ Client register (2)

### Audio-visual aids

- ⊗ Samples of contraceptives (10)
- ⊗ Models, i.e. pelvis, wooden/plastic penis, breast (Eve's model)
- ⊗ Flip chart for male and female reproductive anatomy (10)
- ⊗ Pamphlets or method booklets (200)
- ⊗ Posters

### Commodities

- ⊗ Oral contraception pills (low dose) (200 cycles)
- ⊗ Male condom (600 pieces)
- ⊗ Female condom (50 pieces)
- ⊗ IUD (50 units)
- ⊗ Injectables (50 vials)
- ⊗ Cycle beads (50 pieces)
- ⊗ Implants (50 pieces)
- ⊗ Spermicides (500 pieces)
- ⊗ Diaphragm (2 sets of all) (2 set sizes 60–85)
- ⊗ Circle beads (5 pieces)

### Supply of Commodities

After identifying the commodities, the next step is to identify where to get the commodities. In a State set up, the Family Planning state Co-ordinator is in charge of all Family Planning programmes in the State. The clinics are grouped into zones and a Family Planning Zonal Co-ordinator is the linking pin between the State Family Planning Co-ordinator and the clinic in the state. All supplies of commodities of individual clinics are supplied by the Family Planning Co-ordinator, the Provider may approach the village head who may supply some resources especially the infrastructures (e.g. Community may construct a building; dig a well).

Another area in planning is the staffing for service. Depending on the space available and population need, a Provider can estimate the clinic's ability to deliver service by computing

- ⊗ The number of clients to be seen per Provider
- ⊗ The number of clients to be seen per hour
- ⊗ The number of clinic hours per day

- ✿ The number clinic days per week.

These will give an estimate of the clinic capacity to serve the maximum number of clients. If the staff wants to increase their capacity, this analysis can be used to request for more staffing.

### **Implementation (Clinic operations)**

Implementation deals with the day to day decisions about the:

- ✿ Execution of activities
- ✿ Deployment of manpower in the right amount at the right time and in the right place to perform activities that have been planned
- ✿ Mobilisation of resources, i.e. allocation of the physical and financial resources needed to perform the activities
- ✿ Required information, its processing and its communication in support of the previous decisions taken.

In organising a FP clinic, there must be a leader who will be willing to work with a team to achieve set out objectives. People work well together when they agree with one another. To fulfill the objective of an organisation those who work for the organisation should know what the objectives are. People, who do not know what the objectives are, may waste much of their efforts on activities that do not bring the objectives any nearer to achievement.

The health worker (leader) in charge of a programme and a health team deals first with the people and then with things. People do not give of their best when they are dictated to. The best way to ensure that people agree on objectives is to see that they take part in setting the objectives.

### **Strategies for Achieving include the following:**

- ✿ Co-operate with a team in setting practical and feasible objectives and targets
- ✿ Understand and apply those factors that motivate people to work
- ✿ Reduce the efforts of factors that cause dissatisfaction
- ✿ Decide when, how and whom to delegate authority and responsibility
- ✿ Choose a style of supervision that suits the health team and circumstances in which they work (see section on supervision)

Resources may be physical resources such as equipment and supplies including drugs, money, time, space and information. Information is a special type of resource especially in the form of records.

Decisions regarding the allocation of resources are of the following types

All renewable resources need monitoring and control. This can be achieved through tracking availability, consumption, use (i.e. quality) and as the case may be to-order, to issue, to discard. Watching quality control is equally important.

Time, (a non-renewable resource) is similarly subject to monitoring and control decisions, with the objective of using it efficiently.

Most physical resources also imply a LOGISTIC decision i.e. the procurement, clearance, storage, forwarding or dispatching, distribution, and replenishment of goods, both consumable, e.g. drugs and non-consumable, e.g. vehicles.

## Accounting

Money, as renewable resources, is subject to accounting, a special form of monitoring and control, the purpose of which is to keep track of and compare receipts and expenditures and ensure that the funds are expended for the purposes for which they were allocated and not for other purposes.

## Organisation

Some resources like workspace and records need organisation. Physical resources also need some form of organisational decisions, e.g. in regard to storage. Details of these four areas are as follows

## Logistics

### 3. Ordering

The family Planner in charge of the clinic checks inventories and supplies monthly so as to place early orders if supplies are short. The orders for supplies are sent to the Family Planning State Co-ordinator through the Zonal Family Planning Co-ordinator. Another worker may be responsible for managing supplies, as you must play a part in deciding what is needed. Consider what supplies you want, how many users use the supplies, how frequently you receive supplies of commodities, and how much storage space you have, i.e.

- ✿ Compute the supplies you will use for a period (e.g. 1 year)
- ✿ Calculate the size of reserve stock- this is the amount of supplies you should have on hand to keep you from running short if demand is higher than expected.

### Guidelines for storage of Contraceptives:

- ✿ Clean room and walls
- ✿ No direct sunlight on the supplies and temperature should not exceed 24 degrees centigrade
- ✿ Storeroom not subject to water penetration from floor, walls or roof
- ✿ Supplies to be stacked at least 10 cm from the floor
- ✿ Supplies to be stacked at least 35 cm from any wall

- ✿ Separate stacks accessible for “first expired first out” (FEFO) counting and general management
- ✿ Stacks not more than 2.5 m high
- ✿ Identification marks and other labels visible
- ✿ Issue supplies by carton or box lot if possible
- ✿ Room well ventilated
- ✿ Fire extinguishers not blocked
- ✿ Insecticides and other chemicals not to be stored together with contraceptives and medical supplies
- ✿ The storeroom to be disinfected and sprayed against insects every third month
- ✿ Damaged and condemned supplies to be separated and reported to headquarters of Central Medical stores without delay.

Trainer distributes handout on storage guidelines to participants

## **Time Limitation for use of Contraceptives**

### **Pills**

5 years from the date of manufacture, provided the storage temperature does not exceed 24 degrees centigrade. The date of manufacture is printed on the cartons as well as on the individual pill-cycle package.

### **Foam**

Expiration date (month/year) is indicated on each container

### **Jelly**

At least 5 years if stored according to instructions furnished with jelly containers. Date of manufacture is on each tube.

### **Condoms**

3 years from the date of manufacture. The date of manufacture is printed on the condom box

### **Diaphragm**

5 years in a hot humid climate from date of manufacture noted on box.

### **IUCDS**

Expiration date noted on packaging.

Note: Outdated and spoiled contraceptives should neither be used nor destroyed. They should be separated and reported to Central Medical Stores or Health Headquarters.

## 4. Budgeting

The provider, manager of a small unit such as the family Planning clinic, usually has very little responsibility for spending money. Sometimes, however, the provider may be asked to record the spending of money (i.e. to keep accounts). There are two types of money.

### ☼ **Invisible Money of Budgetary Allocation.**

This is the money that is not seen or handled. It is a paper credit given as an allowance, allocation or warrant of funds. For example, the government may give the clinic an allocation of N5,000 to collect antiseptics or disinfectants from the medical stores. The clinic accounts for the materials drawn from the medical stores. A written account must be kept of each order or requisition used against the allocation.

### ☼ **Visible Money or Cash**

This is money that is seen and handled. It is advanced to the provider to spend for the work of the services provided. It is called cash. Visible money is usually a small amount (petty cash) if in large amounts it may be stolen. Most work places find it convenient to have some petty cash. "Invisible" money (allocations) can be used for large purchases such as drugs and equipment, but there are many small items, which cannot be bought with allocations, e.g. bus fares, postage stamps, detergents, antiseptics etc.

Petty cash is advanced to the provider to be used exclusively for certain authorised health service needs. What the provider is allowed to buy or pay for with petty cash may vary from one place to another.

Below are some examples of the types of items that are sometimes paid for with petty cash.

Transport -Bus fares, mending bicycle punctures, petrol etc

Postage - stamps, telegrams, calls from public telephone service

Cleaning needs - soap detergent, antiseptic, furniture polish

Office needs - Paper, envelopes, glue, string, cello tape, and pins

Sundries - Matches, paraffin, candles, tea, emergency supplies, Kerosene, etc.

## Summary

Following the steps of clinic setting enhances the utilization of the facility by the community members who will also provide the required support for its sustainability.

## Evaluation

- ☼ Describe the 4 steps of clinic setting
- ☼ Mention at least 4 storage guidelines for contraceptives.



## MODULE 6 SESSION 2: MANAGEMENT INFORMATION SYSTEM IN FAMILY PLANNING SERVICES

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### Time

30 minutes

### Learners' Objectives

By the end of this session, participants will be able to:

- ✿ Understand the role of MIS in Family Planning setting

### Session Overview

- ✿ Introduction
- ✿ Family Planning issues managed using MIS
- ✿ Use of MIS in Family Planning Setting

### Method

- ✿ Brainstorming
- ✿ Group work
- ✿ Discussion

### Materials

- ✿ Flip chart stand/paper
- ✿ Markers
- ✿ MIS forms
- ✿ Multimedia projector
- ✿ Lap top

## Content

### Management Information System in Family Planning Services

#### Introduction

Effective management of programmes demand quality MIS that would provide necessary information for optimal decision making, MIS is an essential tool in the management of family planning programmes

#### Family Planning issues Managed using MIS

Some family planning issues that are managed using MIS

- ⊗ Adolescent pregnancy - birth rates among young women, both married and unmarried
- ⊗ Sexually transmitted infections (STIs)
- ⊗ Abortion
- ⊗ Maternal morbidity and mortality
- ⊗ Common ailments
- ⊗ Service utilization - clinic, contraceptive option, counselling, provision of IEC materials and referrals

#### Uses of MIS in Family Planning

The following are the possible uses of MIS outputs in FP

##### ⊗ **Management decision making**

Information generated from MIS is used for management decision making. In this regard, such information could be used

- to improve/modify programme intervention
- for new programme design
- to strengthen programme institutionally

##### ⊗ **Advocacy**

Results of MIS operations could be used to advocate for:

- additional resources from possible funding sources
- support Family Planning (FP)

##### ⊗ **Documentation**

- Understanding of issues
- Identification of trends

##### ⊗ **Information Dissemination on Programme Performance**

- To the media for publicity
- To various stakeholders – Primary, secondary and key stakeholders

- To appropriate government institutions and departments e.g. Health, Planning and Research Department of Federal Ministry of Health.
- For public relations work of programme implementers
- Social marketing of organization's services

#### **Input into monitoring, evaluation and programming**

- To see whether the objectives of the projects are being met
- Identifying weaknesses and gaps
- Provide a guide in re-strategizing
- Could be used for the purpose of replicating programmes
- Designing new programmes or follow up on interventions for the target population.

### Summary

MIS is very important for effective and relevant decision making in family planning services. It enables the authority to appreciate better the strength and weaknesses of the program in order to put in appropriate resources.

### Evaluation

-  State 4 uses of MIS in family planning.

## MODULE 6 SESSION 3: INTRODUCTION TO MIS TOOLS

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### Time

1 hour

### Learners' Objectives

By the end of this session, participants will be able to:

- ✿ Identify the various tools utilised in a Management Information System for family planning services and how and why they are used
- ✿ Differentiate between different tools in terms of function and relevance to their work
- ✿ Should be able to enter basic data in an MIS form
- ✿ Identify the sample MIS forms and explain their uses

### Session Overview

- ✿ Identification of tools used in MIS
- ✿ Functions of the different tools and how their outcomes are utilised for planning
- ✿ How to utilise data from various tools
- ✿ Adapting sample tools for field work
- ✿ Other users of field data and the usual channel for field data.

### Methods

- ✿ Brainstorming
- ✿ Group work
- ✿ Individual exercises
- ✿ Discussion

### Materials

- ✿ Sample MIS tool (forms)
- ✿ Rulers
- ✿ Pencil
- ✿ Erasers
- ✿ Papers
- ✿ Flipchart/stand/paper
- ✿ Markers
- ✿ Multimedia projector
- ✿ Lap top

## Content

### MIS Tools

MIS tools are used for keeping track of various services provided by the programme and activities performed

#### Types of MIS Tools

##### **Client Record Form/Instruction (Form A)**

This form is used to record client's history

##### **Tally Sheets/Daily Activity Summary Forms (Form B1.1 & B1.2)**

This is used to record services provided to client at the facility level. Information in this sheet is summed up at the end of every day and this summation should be transferred into the monthly summary sheets.

##### **Monthly Summary Form (Form C1.1 & C1.2)**

This form is to be used for compilation of data in the Tally/Daily Activity Summary Form, i.e. Forms B1.1 & B 1.2. It should be completed monthly by the responsible health worker in the facility.

##### **Facility Based Referral Form (Form D)**

It is used by clinical service providers or outreach workers who provide clinical services to refer a client to a referral centre where further services can be obtained. This form is designed in a way that enables service providers to keep track of how many referrals they have made and how many of these referrals have gone to the points of referral and follow-up. It enables providers keep track of clients for follow up purposes.

##### **Quarterly Summary Form (Form E)**

This form is used for compilation of data in the Monthly Summary Form (C1.1 & C1.2). It should be completed monthly or at the end of the quarter by the responsible health worker in the facility.

##### **Annual Summary Forms (Form F)**

This is used for compilation of the data in the quarterly summary form. It should be a summary of all quarterly reports for the year in question.

### **Outreach Activity Form (Form G)**

This is used for obtaining a record of reproductive health outreach activities undertaken by individual health worker (peer educator, community health extension worker, etc) during the month in question.

### **Monthly Outreach Summary Form (Form H.1)**

This is used for summarizing all reproductive health outreach activities undertaken by individual health workers (peer educator, community health extension worker etc.) during the month in question. This form is filled by the supervising officer, and submitted to the project Coordinator, who would use the information generated for programme planning and report writing.

### **Quarterly/Annual Outreach Summary form (Form H.2)**

This form summarizes all outreach reproductive health activities carried out by health workers during the quarter of year under reference.

### **Outreach Referral Forms (Form J)**

To be used by clinical service providers or outreach workers to refer a client to a referral centre, where further services can be obtained

### **Appointment Card (Form K)**






This card is used by the service provider to enter appointments for the client. A copy of each of the forms discussed above is appended to this module.

## **Types of Forms at Different Levels**





### **Community level**

-  CBD voucher

### **Health facility level**

-  Daily clinic register
-  Daily consumption record (DCR)
-  Requisition, issue and report form (RIRF)
-  Cost recovery record (CRR)
-  NHIMS monthly forms

### **LGA level**

-  Tally cards
-  Requisition, issue and report form
-  Cost recovery record
-  NHMIS forms

## State level

- ✿ Tally cards
- ✿ Requisition, issue and report form
- ✿ Cost recovery record
- ✿ NHMIS forms

## The Role of the Health Provider in MIS

### General

- ✿ Ensures that service data are collected and collated regularly
- ✿ Forwards information to appropriate quarters in time
- ✿ Ensures that the record is checked daily, monthly, quarterly, semi-annually and annually

### Daily

- ✿ Ensures availability of MIS report forms
- ✿ Completes (fill out) client record form and daily activity register
- ✿ Stores client forms properly on shelves or in the cupboard
- ✿ Ensures that all records are completed at the end of each day

### Monthly

- ✿ Ensures collection of record from necessary sources, e.g. from voluntary health workers (VHWs), traditional birth attendants (TBAs), community health extension workers (CHEWs), primary health centres (PHCs), etc
- ✿ Summarizes the daily activity registers and transfers appropriately to the daily consumption record
- ✿ Completes the daily consumption record
- ✿ Forwards collated forms to appropriate LGA RH/FP coordinator
- ✿ Analyses information and makes graphic presentation of data collected
- ✿ Displays data charts in the staff room for all to refer to or make use of
- ✿ Interprets data and uses same for management decisions

### Bi-monthly: Provider at Health Facility

- ✿ Completes requisition issue and report form
- ✿ Forwards to RH/FP local government supervisor

### Quarterly at the LGA level: LGA FP Supervisor

- ✿ Completes the RIRF forms
- ✿ Forwards to state FP coordinator
- ✿ Updates the tally cards
- ✿ Completes the cost recovery record
- ✿ Completes the NHMIS forms

### **Every 4 Months at the State Level: State FP Coordinator**

- ☼ Completes the RIRF
- ☼ Forwards to central level
- ☼ Updates tally cards
- ☼ Completes the cost recovery record
- ☼ Summarizes the NHMIS forms

### **Semi-annually**

- ☼ Collates two quarterly summary reports, e.g. January to March and April to June into one semi-annual form to cover the period January to June for the year
- ☼ Forwards appropriately from the state to the zone
- ☼ Analyses and interprets data for management decisions

### **Annually**

- ☼ Collates all monthly, quarterly or semi-annual summary forms
- ☼ Summarizes into annual form
- ☼ Forwards it to the appropriate office
- ☼ Analyzes data collected, i.e. the Department of Health Planning and Research and the Department of Community Development and Population Activities
- ☼ Makes graphic presentation and display to show program performance
- ☼ Interprets data for management decisions

### **Utilisation of Data Generated from Various Tools**

Data from the summary forms are analysed as desired whether monthly, quarterly or annually. This interpretation informs service providers and project managers on areas of need and issues that need attention, for instance, observation in drop of number of young people utilising a particular service. Interpreting this involves examining reasons responsible for the drop in the utilisation of these services. Another example where analysed data indicates that male adolescents are utilising a particular service more than female adolescents or vice versa, such data will involve examining the reasons for this gender gap and re-strategizing to bridge the gap.

### **Summary**

Record keeping when properly maintained and interpreted enhances the provision of services now and in the future.

### **Evaluation**

- ☼ Define MIS
- ☼ State the importance of accurate record keeping
- ☼ Describe 3 forms being used in MIS.



**Time**

45 minutes

**Learners' Objectives**

By the end of the session, participants will be able to:

- ✿ Define quality of care
- ✿ State the elements of Quality of Care
- ✿ Describe the benefits of Quality of Care

**Session Overview**

- ✿ Definition of Quality of Care
- ✿ Elements of Quality of Care
- ✿ Benefits of Quality of Care

**Methods**

- ✿ Brainstorming
- ✿ Discussion
- ✿ Case studies
- ✿ Lecture

**Materials**

- ✿ Flip chart and markers
- ✿ Multimedia projector
- ✿ Lap top

## Content

### Definition

Quality of Care is defined in terms of the way individuals and couples are treated by the system providing family planning services.

### Elements of Quality of Care

- ✿ Choice of methods
- ✿ Information given to users
- ✿ Technical competence
- ✿ Interpersonal relations
- ✿ Mechanisms to encourage continuity
- ✿ Appropriate constellation of services
- ✿ Safety

### Choice of Methods

- ✿ Refers to the various methods offered on a reliable basis and their intrinsic variability
- ✿ They should be readily available and accessible

### Provider Competence

This has two components:

#### 1. Qualifications

Refers to education, training, experience and knowledge that service providers bring to their jobs to perform the technical aspects of the services.

#### 2. Technical Competence

Refers to the clinical and non-clinical competence of providers in:

- Screening clients and patients for high-risk factors;
- Providing clinical services;
- Handling complications and side effects.

### Provider-Client Information Exchange

#### 3. Understanding Patients/Clients

- Refers to information obtained from clients/patients to understand their background, attributes, preferences, medical and RH history, and personal goals.
- Information given to the user

- To the extent that clinical information is transmitted accurately and clients are appropriately screened for contraindications.
- Follow-up
  - To the extent that medically indicated follow-up is conducted.

⊗ Technical Competence is the aspect of Quality of Care least easily judged by clients.

- Clients lack ability to fully evaluate clinical competence
- Clients often do not notice obviously dirty conditions

Instead, clients are more interested in

- Discomfort they did not expect
- Amount of time spent with them
- The caring attitude of provider

⊗ Yet, clients bear the consequences of poor technique in the form of

- Unnecessary pain
- Infection
- Side effects
- Other adverse effects
- In some circumstances, death

⊗ Commonly reported causes of Clinical Incompetence include:

- Unsanitary physical circumstances
- Gross errors in technique
- Application of inappropriate medical standards

## **Benefits of Good Quality of Care in Family Planning Services**

- ⊗ Safety and effectiveness
- ⊗ Increased client satisfaction
- ⊗ Increased patronage and use of family planning services
- ⊗ Securing confidence of clients/community
- ⊗ Expanded access to Reproductive Health services
- ⊗ Increased job satisfaction for providers
- ⊗ Better programme reputation and competitiveness
- ⊗ Clients are handled with dignity and care
- ⊗ Clients are helped to choose methods that they will most likely continue to use
- ⊗ Enhanced Client-Provider Interaction

## **Summary**

Quality of Care consists of the proper performance of interventions that are known to be safe and affordable with ability to produce and impact on morbidity and mortality

### Evaluation

- ✿ Define Quality of Care
- ✿ State the elements of Quality of Care
- ✿ List the benefits of Quality of Care

## ***MODULE 7***

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## MODULE 7

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### INFECTION PREVENTION

The module covers the information necessary for participants to perform and supervise the infection prevention (IP) practices in providing reproductive health/family planning services.

**Session 1:** Introduction and Definition of Terms

**Session 2:** Aseptic Techniques

**Session 3:** Use of antiseptics and disinfectants

**Session 4:** Steps of Processing Instruments and Storage

**Session 5:** Use and Disposal of Needles and other Sharps

**Session 6:** Housekeeping and Waste Disposal

## MODULE PLAN - INFECTION PREVENTION

SESSIONS	DURATION	OBJECTIVES	METHODS	RESOURCES
<b>Session 1:</b> Introduction and definition of terms	30 minutes	<ul style="list-style-type: none"> <li>Discuss importance of Infection Prevention.</li> <li>Explain Disease Transmission Cycle.</li> <li>Identify roles of health provider in Infection Prevention</li> <li>Identify potential consequences of poor Infection Prevention practices.</li> <li>Define Infection Prevention terms</li> <li>Explain standard precautions</li> </ul>	<ul style="list-style-type: none"> <li>Lecture</li> <li>Discussion</li> <li>Handouts</li> <li>Group Exercises</li> <li>Case Studies</li> <li>Demonstration and return demonstration</li> </ul>	<ul style="list-style-type: none"> <li>Flip chart stand</li> <li>Paper</li> <li>Masking tape</li> <li>Coloured markers</li> <li>Transparencies</li> <li>Multimedia Projector</li> <li>Laptop</li> </ul>
<b>Session 2:</b> Aseptic Technique	30 minutes	<ul style="list-style-type: none"> <li>Define Aseptic Technique.</li> <li>Describe ways to properly prepare a client for clinical procedures.</li> <li>Demonstrate the gloving process</li> <li>Demonstrate appropriate attire for RH/FP service provision</li> <li>Explain the importance of establishing and maintaining a sterile field</li> </ul>	<ul style="list-style-type: none"> <li>Discussion</li> <li>Demonstration and return demonstration</li> </ul>	<ul style="list-style-type: none"> <li>TV and Video tapes</li> <li>Samples(mask, surgical gown, cap, gloves, etc)</li> </ul>
<b>Session 3:</b> Use of antiseptics and disinfectants	30 minutes	<ul style="list-style-type: none"> <li>Define antiseptics</li> <li>Define disinfectants</li> <li>Differentiate between antiseptics and disinfectants</li> <li>Name correct and incorrect uses of antiseptics and disinfectants</li> <li>State correct ways for diluting and storing of antiseptics</li> </ul>	<ul style="list-style-type: none"> <li>Illustrated lecture</li> <li>Demonstration and return demonstration</li> </ul>	<ul style="list-style-type: none"> <li>Different types of antiseptics/disinfectants</li> <li>Chloroxylonol</li> <li>Chlorhexidine</li> <li>Ethyl alcohol</li> <li>Laptop</li> <li>Multimedia projector</li> <li>Flip charts/markers</li> </ul>
<b>Session 4:</b> Steps of processing instruments and storage	30 minutes	<ul style="list-style-type: none"> <li>Explain steps of processing instruments and other items</li> <li>Demonstrate appropriate order for conducting the steps</li> <li>Explain the importance of carrying out the steps in the correct order</li> <li>Identify how to appropriately organize an area of the facility for processing</li> </ul>	<ul style="list-style-type: none"> <li>Lecture</li> <li>Discussion</li> <li>Demonstration and Return Demonstration</li> <li>Handout</li> <li>Case Studies</li> </ul>	<ul style="list-style-type: none"> <li>Flip charts stand</li> <li>Paper</li> <li>Coloured markers</li> <li>Masking tape</li> <li>Multimedia projector</li> <li>Laptop</li> </ul>

SESSIONS	DURATION	OBJECTIVES	METHODS	RESOURCES
		instruments and other items ☼ Describe the storage of processed equipment and instruments		
<b>Session 5:</b> Use and disposal of needles and other sharps	30 minutes	☼ List ways that health workers can be injured by needles/sharps ☼ Describe actions that surgical team can take to prevent or minimize injuries by needles/sharps. ☼ Describe the proper procedures for safe use and disposal of needles/sharps ☼ Describe the proper procedures for giving injections and use of multi dose vials	☼ Lecture ☼ Discussion ☼ Demonstration and Return Demonstration ☼ Handouts ☼ Case studies	☼ Flip chart stand ☼ Paper ☼ Coloured markers ☼ Masking tape ☼ Multimedia projector ☼ Laptop
<b>Session 6:</b> Housekeeping and waste disposal	30 minutes	☼ Explain housekeeping in a health facility ☼ List 5 general housekeeping guidelines ☼ Describe how to prepare disinfectant cleaning solution ☼ Describe appropriate waste disposal ☼ State the importance of correct disposal of waste.	☼ Lecture ☼ Discussion ☼ Demonstration and Return Demonstration ☼ Handouts ☼ Case studies	☼ Flip chart stand ☼ Paper ☼ Coloured markers ☼ Masking tape ☼ Multimedia projector ☼ Laptop



## MODULE 7 SESSION 1: INTRODUCTION AND DEFINITION OF TERMS

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### Time

30 Minutes

### Learners' Objectives

- ⊗ Discuss importance of Infection Prevention
- ⊗ Explain Disease Transmission Cycle
- ⊗ Identify Roles of health provider in Infection Prevention
- ⊗ Identify potential consequences of poor Infection Prevention practices
- ⊗ Define infection prevention terms
- ⊗ Explain standard precautions

### Session Overview

- ⊗ Importance of Infection Prevention
- ⊗ Potential consequences of poor Infection Prevention practices during clinical service
- ⊗ Disease transmission cycle
- ⊗ Supply requirement for Infection Prevention
- ⊗ Role of Health Provider in Infection Prevention
- ⊗ Definition of Infection Prevention terms

### Methods

- ⊗ Lecture
- ⊗ Discussion
- ⊗ Demonstration and return demonstration
- ⊗ Handout
- ⊗ Group exercise
- ⊗ Case studies

### Materials

- ⊗ Flip chart stand/paper
- ⊗ Coloured markers
- ⊗ Masking tape
- ⊗ Multimedia projector
- ⊗ Laptop
- ⊗ TV and video tapes

## Content

### Importance of Infection Prevention

Proper Infection Prevention practices must be followed in order to minimize the risk of infection and serious disease for the client, the provider and all facility staff members.

People with infections, both clients and staff member, may not have any sign or symptoms of the infections they are carrying. This is particularly notable for HIV and Hepatitis viruses. Therefore, it is important for all staff to practice proper infection prevention with all clients at all times.

As a RH/FP provider, you are responsible for the safety of clients and staffs. This includes ensuring that appropriate infection prevention practices are followed at your facilities. In almost all settings, there is room for improving infection prevention practices, and providers play an important role in this on-going improvement process.

### The Six components of the Disease Transmission Cycle

#### **Infectious agent**

An infectious agent is the microorganism that can cause infection or disease. The infectious agent can include bacteria, viruses, fungi and parasites.

#### **Reservoir**

The place where the agent survives, grows, and/or multiplies. People, animals, plants, soil, air, water and other solutions, instrument and other items used in clinical procedures can serve as reservoirs for potentially infectious microorganisms.

#### **Place of exit**

The route by which the infectious agent leaves the reservoir, the infectious agent can leave the reservoir through the blood stream, broken skin (e.g. puncture, cut, surgical site or rash), mucous membranes (e.g. eyes, nose, mouth), the respiratory tract (e.g. lungs), the genitourinary tract, the gastrointestinal tract or the placenta, by means of blood, excretions, secretions or droplets that come from these places.

#### **Mode of transmission**

The way in which the infectious agent moves from the reservoir to a susceptible host

Transmission can occur by four modes

- **Contact:** The infectious agent can be transmitted directly from the reservoir to a susceptible host through touch (e.g. staphylococcus), sexual intercourse (e.g. gonorrhoea, HIV), or droplets (e.g. influenza, tuberculosis).

- **Vehicle:** The infectious agent can be transmitted indirectly from the reservoir to a susceptible host by material that maintains the life of the infectious agent. Such vehicles include food (e.g. salmonella), blood (e.g. hepatitis B, HIV), water (e.g. cholera, shigella) or instruments and other items (e.g. hepatitis B, HIV, Pseudomonas)
- **Airborne:** The infectious agent can be carried by air currents (e.g. measles, tuberculosis).
- **Vector:** The infectious agent can be transmitted to susceptible host through insects and other invertebrate animals (e.g. mosquitoes can transmit malaria and yellow fever; fleas can transmit plague)

### **Place of Entry**

This is the point at which the infectious agent moves into the susceptible host.

The infectious agent can enter the susceptible host through the bloodstream, broken skin (e.g. puncture, cut, surgical site, rash), mucous membrane (e.g. eyes, nose, mouth), the respiratory tract, (e.g. mouth, anus or the placenta).

### **Susceptible Host**




A person who can become infected by the infectious agent

For the purpose of this training, susceptible hosts include clients, service providers, ancillary staff and members of the community.

**Remember:** The “mode of transmission” is the easiest point at which to break the disease transmission cycle. In a health care facility, this can be accomplished by following appropriate infection prevention practices, such as hand washing, practicing aseptic technique, correctly processing instruments and other items for reuse, and correctly disposing of medical waste.

## **Potential Consequences of Poor IP Practices during Service provision**

There are several serious consequences of using ineffective infection prevention practices during service provision.

-  Infection, such as HIV, hepatitis and others commonly found in clinic settings (e.g. staphylococcus, streptococcus) may be transmitted to clients, providers or clinic staff.
-  Many infections related to service use are consequences of inappropriate IP procedure used during the service provision.
-  A provider-caused (iatrogenic) reproductive tract infection, such as endometritis or PID may result from poor infection prevention practices.

- ⊗ A client who acquires a postpartum infection as a result of using a clinical family planning method may never want to use the method again.

## **Supply Requirements for Infection Prevention**

Supplies needed for optimum infection prevention practices include:

- ⊗ Water
- ⊗ Hand washing soap
- ⊗ Antiseptics
- ⊗ Supplies and equipment for sterilization or high-level disinfections (HLD) of instrument
- ⊗ Sterile or HLD gloves
- ⊗ Utility gloves
- ⊗ Hypochlorite solution(Bleach)
- ⊗ Bucket (plastic preferred)
- ⊗ Container for measuring bleach
- ⊗ Detergent (liquid preferably) for instruments and facilities
- ⊗ Brush for cleaning instruments

## **The Clinician's Role in Infection Prevention**

Health care providers play an important role in improving the infection prevention practices in the facilities where they work. The clinician's role in effective infection prevention efforts begins with a basic understanding of infection transmission and proper infection prevention practices. Along with good IP practices, the clinician has a responsibility to supervise IP services of other staff and to facilitate improved IP practices in the facilities.

Following the guidelines below will help to begin the improvement of infection prevention practices:

- ⊗ Establish procedures to address situations in which clients and staff are exposed to risk of infection.
- ⊗ Provide staff with orientations and training before new infection prevention procedures are begun.
- ⊗ Provide adequate equipment, supplies, and facilities for implementing new or improved infection prevention practices
- ⊗ Conduct periodic reviews to make sure the implementation of infection prevention practices is going well, and to bring to light any staff concerns.

The clinician's role includes making sure that staff receive training in infection prevention. Initially, all staff (including nurses, physicians, cleaners and housekeepers) will need to be oriented to the importance of infection prevention. Topics such as the following should be addressed:

- ⊗ The process of disease transmission and potential routes of infection in the hospital or clinic environment
- ⊗ The key role each staff members plays in infection prevention

- ⦿ Practices for minimizing disease transmission (including hand washing, use of gloves, gowns, and other protective barriers, decontamination of gloves and instruments, and other proper waste disposal.

## Definition of IP Terms

**Microorganisms** are the causative agents of infection. They include bacteria, viruses, fungi and parasites. For infection prevention purposes, bacteria can be further divided into three categories: vegetative (staphylococcus), mycobacteria (tuberculosis) and endospores (tetanus) which are the most difficult to kill. The terms asepsis, antisepsis, decontamination, cleaning, disinfection and sterilization often are confusing. For the purpose of this module, the following definitions will be used:

- ⦿ **Asepsis** and aseptic technique are general terms used to describe the combination of efforts made to prevent entry of microorganisms into any area of the body where they are likely to cause infection.
- ⦿ **Antisepsis** is the prevention of infection by killing or inhibiting the growth of microorganisms on skin and other body tissues using a chemical agent (antiseptic).
- ⦿ **Decontamination** is the process that makes objects safer to be handled by staff before cleaning (i.e. reduces, but does not eliminate the number of microorganisms on instruments and other items). Objects to be decontaminated include large surfaces (e.g. pelvic examination or operating tables), surgical instruments, gloves and other items contaminated with blood or body fluids.
- ⦿ **Cleaning** is the process that physically removes all visible blood, body fluids or any other foreign materials such as dust or dirt from skin or inanimate objects.
- ⦿ **Disinfection** is the process that eliminates most, but not all, disease-causing microorganisms from inanimate objects.
- ⦿ **High-Level Disinfection (HLD)** by boiling, steaming or the use of chemicals eliminates all microorganisms except some bacterial endospores from inanimate objects.
- ⦿ **Sterilization** is the process that eliminates all microorganisms (bacteria, viruses, fungi and parasites) including bacteria endospores from inanimate objects.

## Summary

The session provides an overview of the various terms used in Infection Prevention. It discusses in details the Disease Transmission Cycle and the role of the provider in Infection Prevention.

## Evaluation

- ✿ Discuss the importance of Infection Prevention
- ✿ Explain the components of Disease Transmission Cycle
- ✿ State the consequences of poor Infection Prevention practices
- ✿ List the roles of the health provider in Infection Prevention
- ✿ State the standard precautions for Infection Prevention

## MODULE 7 SESSION 2: ASEPTIC TECHNIQUE

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### Time

30 Minutes

### Learners' Objective

- ⊗ Define Aseptic technique
- ⊗ Explain the importance of hand washing in Infection Prevention
- ⊗ Demonstrate the gloving process
- ⊗ Demonstrate appropriate attire for RH/FP service provision
- ⊗ Describe ways to properly prepare a client for clinical procedures
- ⊗ Explain the importance of establishing and maintaining a sterile field

### Session Overview

- ⊗ Definition of Aseptic techniques
- ⊗ Importance of hand washing in IP.
- ⊗ Proper hand gloving
- ⊗ Appropriate attire for procedure
- ⊗ Preparation of a client for clinical procedures
- ⊗ Importance of establishing and maintaining a sterile field

### Methods

- ⊗ Discussion
- ⊗ Demonstration and return demonstration handout
- ⊗ Handout
- ⊗ Case studies

### Materials

- ⊗ TV and video tapes
- ⊗ Samples
- ⊗ Masks and surgical gowns
- ⊗ Caps, gloves

## Content

### Aseptic Technique

#### Definition

**Aseptic technique:** Practices that help reduce the risk of post-procedure infections in clients by reducing the likelihood that, during clinical procedures, microorganisms will enter areas of body where they can cause disease.

Placing a physical, mechanical or chemical “barrier” between microorganisms and an individual, whether a client or health worker, is an effective means of preventing the spread of disease (i.e., the barrier serves to break the disease transmission cycle). The following aseptic techniques refer to infection prevention practices that create protective barriers for infections:

- ✿ Hand washing
- ✿ Wearing gloves (both hands) either for surgery or when handling contaminated waste materials or soiled instruments;
- ✿ Wearing appropriate attire (e.g. protective goggles, face mask or apron) when contact with blood or body fluids is possible;
- ✿ Using antiseptic solutions to prepare the skin prior to clinical procedure.
- ✿ Using safe work practices such as not recapping or bending needles, safely handling surgical instruments, and properly disposing of waste materials; and
- ✿ Maintaining a safer environment in the procedure area

#### Hand Washing

Hand washing is one of the most effective ways to reduce the risk of infections. To minimize the risk of post procedure infections in clients, always wash your hands before and after examining each client and before putting on and after removing gloves for clinical procedures.

#### Importance of Routine Hand washing in Infection Prevention

For more than 100 years, experts have known that hand washing is the most important way to reduce the spread of infections in the health care setting. However, hand washing is often under-emphasized, not performed, or not performed correctly in health care facilities.

#### Why Hand Washing is so important

Our skin contains microorganisms that normally live within the outer layers of the skin or in the glands of the skin. These **resident microorganisms** cannot easily be removed from the skin



either by mechanical friction (scrubbing or rubbing) or by washing with plain soap or detergent. However, killing them or inhibiting their growth can reduce the risk of infections.

Our skin also acquires microorganisms during the course of our work and daily living. These **transient microorganisms** can easily be removed both by mechanical friction and by washing with plain soap or detergent. During the course of their work, service providers' hands can easily become contaminated with potentially infectious transient microorganisms. If service providers do not wash their hands, any potentially infectious transient microorganisms contained on them can cause infections in clients. In addition, during their work service providers and ancillary staff may be exposed to potentially contaminated blood and other body fluids, even when gloves are worn, putting them at risk of infections. Hand washing can help reduce this risk.

## **Appropriate Times for Hand washing**

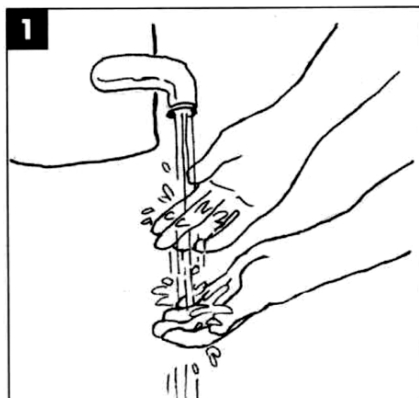
### **Hands should be washed**

- ✿ Immediately after arriving at work
- ✿ Before examining each client
- ✿ After examining each client
- ✿ After touching any instrument or object that might be contaminated with blood or other body fluids, or after touching mucous membranes (e.g., eyes, nose, mouth)
- ✿ Before putting on gloves for clinical procedures
- ✿ After removing gloves (hands can become contaminated if gloves contain invisible holes or tears)
- ✿ After using the toilet or latrine
- ✿ Before leaving work at the end of the day

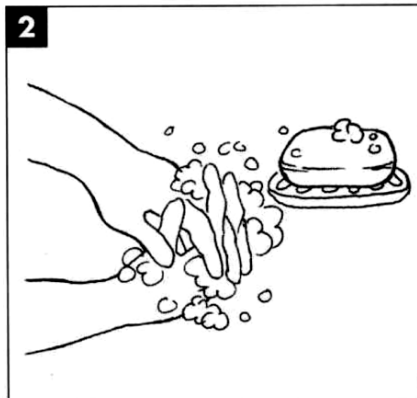
### **Hand washing with Soap and Running water (routine hand washing)**

- ✿ Removes transient microorganisms and soil (any material that should **not** be found on clean hands, such as dirt, blood, feces, and remnants from food).
- ✿ Is appropriate in most situations when hands should be washed, including immediately after arriving at work, before and after contact with a client, after handling specimens or potentially contaminated items, after using the toilet or latrine, and before leaving work.

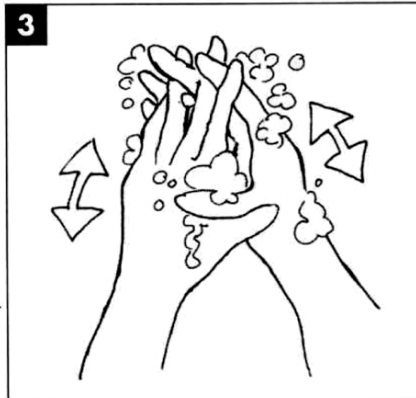
## Steps of Hand washing



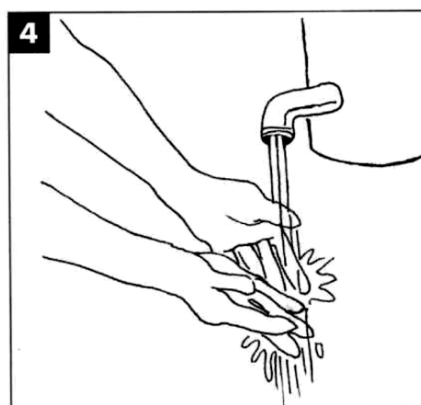
Wet hands with running water.



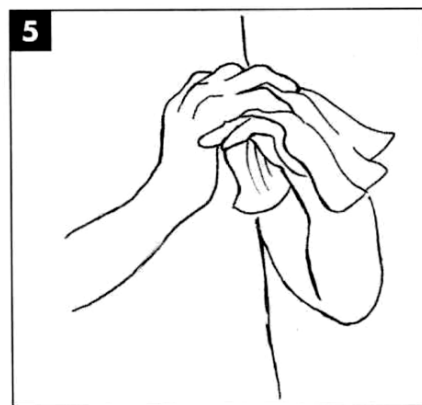
Rub hands together with soap and lather well. Make sure to rub all parts of your hands.



Vigorously weave fingers and thumbs together and slide them back and forth for 10–15 seconds (longer if hands are visibly soiled). Remember to wash around the nails.



Rinse hands under a stream of clean, running water until all soap is gone.



Dry hands with a clean towel or allow hands to air-dry.

After hand washing, dry hands with a clean towel or air-dry; shared towel can become contaminated quickly. Ask the person in charge of ordering supplies for your facility to cut up a large towel or purchase small towels or facecloths that staff can use to dry their hands; if possible, carry an individual handkerchief or towel attached to your belt or in your pocket to avoid using dirty towels. If necessary, bring a small towel from home for your personal use.

**Remember:** Use soap or detergent when washing hands; water alone does not effectively remove protein, oils, grease, and dirt. After hand washing, rinse hands under running water to wash away the microorganisms and soil.

Microorganisms grow and multiply in moisture and standing water. Therefore:

- ☼ Keep bar soap on a soap rack or in a dish that allows for drainage. Leaving soap in a pool of water will lead to increased growth of microorganisms.
- ☼ Avoid dipping or washing hands in a basin containing standing water, even if an antiseptic solution (such as Dettol or Savlon) is added. Microorganisms and soil will not be washed away, and the water can easily become contaminated from repeated use.
- ☼ Use small bars of soap, if available, or cut large ones into smaller pieces to reduce the likelihood of contamination.

**To clean hands when running water is not available, use either:**

- ☼ A bucket with a tap that can be turned off to lather hands and turned on again for rinsing.
- ☼ A bucket and pitcher, with one person pouring the water over the other's hands and allowing it to drain into the bucket.
- ☼ An alcohol hand rub, which does not require water.

### **Steps of Alcohol Hand Rub**

- ☼ Apply 3-5 ml of alcohol or an alcohol hand rub solution
- ☼ Rub hands together until they are dry

Because using alcohol alone tends to dry the skin, it is best to use an alcohol hand rub solution.

**To prepare an alcohol hand rub solution, add together:**

- ☼ 2 ml of glycerin, propylene glycol, or sorbitol and
- ☼ 100 ml of 60-90% alcohol

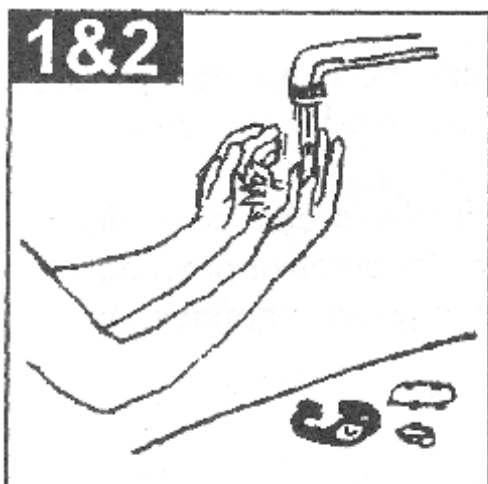
**Note:** An alcohol hand rub does **not** remove soil or organic material such as blood. Therefore, an alcohol hand rub should **not** be used when hands are visibly soiled.

### **Surgical Hand Scrub**

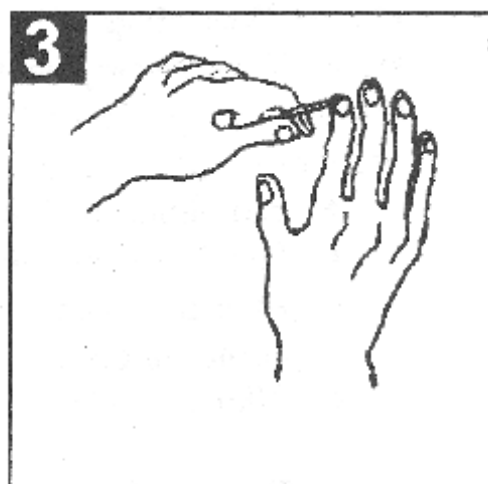
- ☼ Remove all jewellery
- ☼ Wet hands and forearms thoroughly
- ☼ Clean fingernails with a brush
- ☼ Hold your hands up above the level of your elbows
- ☼ Apply antiseptic
- ☼ Using a circular motion, begin at the finger tips of one hand, lather and wash between fingers, continuing from finger tips to elbows
- ☼ Repeat for the second hand and arm for 3–5 minutes
- ☼ Rinse each arm separately, finger tips first, holding your hand above the level of your elbow
- ☼ Using a sterile towel, wipe your arms dry from finger tips to elbow
- ☼ Use one side of the towel to dry the first hand and the other side to dry the second hand
- ☼ Keep your hands above the level of your elbows and do not touch anything

Note: Recent studies have shown that using a brush to scrub the hand during surgical hand scrub provides no greater reduction in the number of microorganisms on the hands than scrubbing with antiseptic alone. Surgical hand scrub may be performed using either a soft brush, a sponge or antiseptic alone. Avoid using a hard brush, which is not necessary and may irritate the skin.

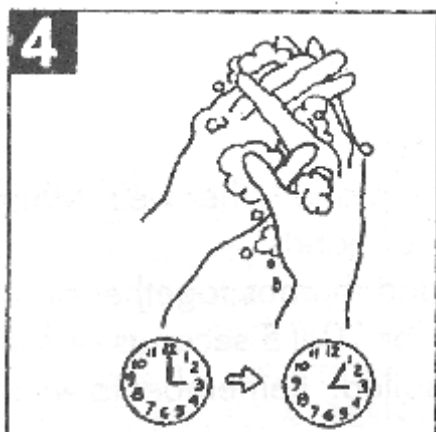
### Steps in Performing a Surgical Hand Scrub



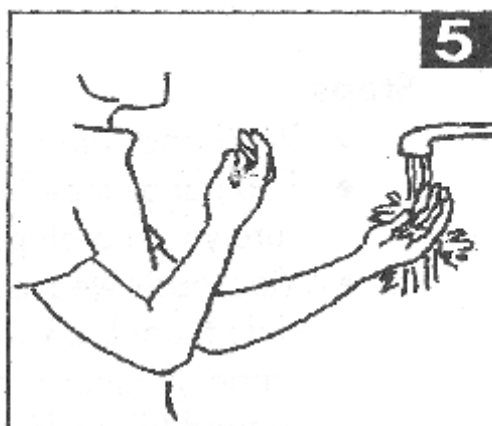
**1&2**  
Remove all jewelry on your hands and wrists.  
Adjust the water to a warm temperature and wet your hands and forearms thoroughly.



**3**  
Clean under each fingernail with a stick or brush. (Note: Fingernails should be kept short.)



**4**  
Holding your hands up above the level of your elbow, apply the antiseptic. Using a circular motion, begin at the fingertips of one hand and lather and wash between the fingers, continuing from fingertip to elbow. Repeat this for the second hand and arm. Continue washing for 3-5 minutes.



**5**  
Rinse each arm separately, fingertips first, holding your hand at the level of your elbow.



**6**  
Using a sterile towel, wipe your arm- from fingertips to elbow- dry. Use one side of the towel to dry the first hand and the other side of the towel to dry the second hand.



**7**  
Keep your hands above the level of your elbow and do not touch any thing

## Hand Gloving

### Putting on and Removing Surgical Gloves

To prevent the spread of infections, sterile or high-level disinfected surgical gloves should be worn during all procedures in which there will be contact with the bloodstream or tissues under the skin (e.g., surgical procedures, insertion of Norplant implants, pelvic examinations for women in labour).

Wearing sterile or high-level disinfected surgical gloves:

- ⊗ Protects the client from microorganisms on the service provider's hands.
- ⊗ Protects the service provider from infectious microorganisms in the client's blood or other body fluids and on contaminated instruments, other items, and surfaces.

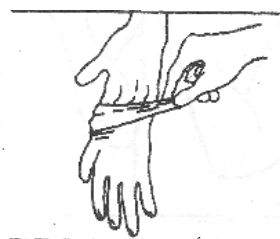
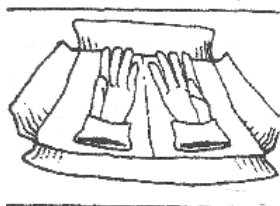
### Use of Gloves

When to wear gloves	<p>All staff prior to contact with blood and body fluids from any client should wear gloves. Wear gloves:</p> <ul style="list-style-type: none"> <li>⊗ When performing a procedure, such as inserting or removing IUD in the clinic</li> <li>⊗ When disposing of contaminated waste items (cotton, gauze or dressings)</li> </ul> <p>A separate pair of gloves must be used for each client to avoid cross-contamination</p>
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## Preparation for Putting on Surgical Gloves

Gloves are cuffed to make it easier to put them on without contaminating them. When putting on sterile or high-level disinfected surgical gloves, remember that the first glove should be picked up by the cuff only; the second glove should then be touched only by the other sterile or high-level disinfected surgical glove.

### Steps for Putting on Sterile or High-level Disinfected Surgical Gloves

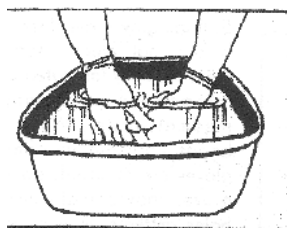


1. Prepare a large, clean, dry area for opening the package of gloves. (If the gloves have been processed and are not wrapped in a package, lay them on a sterile or high-level disinfected surface). Either (1) open the outer glove package and then perform a surgical hand scrub, or (2) perform a surgical hand scrub and then ask someone to open the package for you. Dry your hands completely.
2. Open the inner glove wrapper, exposing the cuffed gloves with the palms up.
3. Pick up the glove by the cuff, touching only the inside portion of the cuff (the side that will be touching your skin when the glove is on).
4. While holding the cuff, slip your other hand into the glove. (Pointing the fingers of the glove toward the floor will keep the fingers open). Be careful not to touch anything, and hold the gloves above waist level. (Note: if the first glove is not fitted correctly, wait to make any adjustment until the second glove is on. Then use the sterile or high-level disinfected fingers of one glove to adjust the sterile or high-level disinfected portion of the other glove).
5. Pick up the second glove by sliding the fingers of the gloved hand under the cuff of the second glove. Be careful not to contaminate the gloved hand with the ungloved hand as the second glove is being put on.
6. Put the second glove on the ungloved hand by maintaining a steady pull through the cuff.
7. Adjust the position of the gloved fingers until the gloves fit comfortably.

adapted from *Intrah*, 1996. Infection Prevention in FP/MCH Clinics. Guidelines for Clinical Procedures in Family Planning: A Reference for Trainers. Chapel Hill, NC, ppA11-22, A11-23.



## Steps for Removing Surgical Gloves

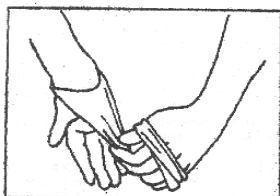


1. Rinse gloved hands in a basin of decontaminated solution to remove blood or other body fluids.

2. Grasp one of the gloves near the cuff and pull it part of the way off. Turn the glove partially on your hand before removing the second glove to protect you from touching the outside surface of either glove with your bare hands.

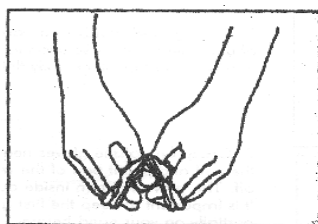


3. Leaving the first glove over your fingers, grasp the second glove near the cuff and pull it part of the way off. The glove will run inside out. It is important to keep the second glove partially on your hand to protect you from touching the outside surface of the first glove with your bare hand.



4. Pull off the two gloves at the same time, being careful to touch only the inside surfaces of the gloves with your bare hands.

5. If the gloves are disposable or are not intact, dispose of them properly (as stated under information on managing medical waste at the end of this chapter. Wash your hands immediately after removing the gloves, since the gloves may contain invisible holes or tears, leaving you at risk of exposure to contaminated blood and other body fluids.



## Ways that sterile or high-level disinfected surgical gloves can become contaminated:

- ✿ By touching the outside of a sterile or high-level disinfected surgical glove with the ungloved hand as the gloves are being put on.
- ✿ By touching anything that is not sterile or high-level disinfected.
- ✿ By tears and punctures
- ✿ By holding the gloved hands below the level of the waist

## If sterile or high-level disinfected surgical gloves become contaminated:

- ✿ Stop what you are doing
- ✿ Step away from the sterile field
- ✿ Remove the contaminated gloves)
- ✿ Put on new gloves; if only one glove is being replaced, make sure not to contaminate the uncontaminated glove in the process.

- ☼ Remove used gloves before touching anything. Countertops, faucets, and pens and pencils are frequently contaminated because health care workers touch them while wearing used gloves.
- ☼ Processing gloves for reuse is **not** recommended, since gloves are difficult to properly process. Processing and reusing disposable gloves is especially not recommended.
- ☼ Studies have shown that invisible holes or tears are likely to occur when gloves are processed.
- ☼ Surgical gloves are the most expensive. Whenever possible, they should be used only for procedures in which there will be contact with the bloodstream or tissues under the skin.

## **Surgical Attire**

- ☼ This includes wearing of masks, eye covers, caps, footwear, gowns and gloves

## **Preparing Clients for Clinical Procedures - Shaving**

- ☼ This is no longer recommended, but if you must shave, use antimicrobial soap and water or shave dry. In each case, shave just before surgery
- ☼ Prepare the skin using antiseptic, e.g. Iodophor (Betadine), 4% Chlorhexidine (eg Hibitane), 1–3% Iodine, followed by 60–90% alcohol
- ☼ Wipe off excess antiseptic with sterile dry cotton gauze
- ☼ Clean vagina with antiseptic such as Chlorhexidine with Cetrimide, e.g. Savlon
- ☼ Clean cervix with Iodophor, e.g. Betadine

## **Steps for Maintaining a Sterile Field**

- ☼ Place only sterile items within the sterile field
- ☼ Open, dispense, and transfer sterile items without contaminating them
- ☼ Consider items located below the level of draped painted as unsterile
- ☼ Do not allow *scrubbed personnel* to reach across unsterile areas or touch unsterile items
- ☼ Do not allow *unscrubbed personnel* to reach across sterile field or touch sterile items
- ☼ Recognize and maintain sterile field
- ☼ Recognize that the edges of a package containing sterile items are unsterile
- ☼ Recognize that a sterile barrier that has been penetrated is considered contaminated
- ☼ Be conscious of where you are at all times and move within or around the sterile field
- ☼ Do not place sterile items near open windows or doors

## **Steps for using Good Surgical technique**

- ☼ Ensure gentle handling/minimal manipulation of tissues during surgery
- ☼ Control excessive blood loss



## Steps for Maintaining a Safer Environment

- ⊗ Limit entry of unauthorized individuals to surgical/procedure areas
- ⊗ Close doors and draw curtains during all procedures
- ⊗ Ensure that all personnel in the surgical area wear clean clothes, masks, caps and good footwear
- ⊗ Enclose the surgical procedure area; to minimize dust and eliminate insects, air-condition the room
- ⊗ Decontaminate and clean examination/operating tables, counters, instrument trolleys, etc, before a new client is brought into the room

## Summary

Adoption of Aseptic Techniques when conducting medical procedures remains one of the major strategies for preventing infection.

The understanding of the various procedures of proper hand washing, gloving and removal of used gloves and the wearing of proper attires is imperative for the maintenance of a sterile field.

## Evaluation

- ⊗ Describe Aseptic Technique.
- ⊗ Demonstrate the proper use of gloves.
- ⊗ Explain the Importance of maintaining a sterile field.

**Time**

30 Minutes

**Learners' Objectives**

By the end of the session, participants will be able to:

- ✿ Define antiseptics
- ✿ Define disinfectants
- ✿ Differentiate between antiseptics and disinfectants
- ✿ Name correct and incorrect uses of antiseptics and disinfectants
- ✿ State correct ways for diluting and storing of antiseptics

**Session Overview**

- ✿ Definition of antiseptics and disinfectants
- ✿ Types of commonly used antiseptics and disinfectants
- ✿ Correct use of antiseptics and disinfectants

**Methods**

- ✿ Illustrated Lecture
- ✿ Demonstration and return demonstration

**Materials**

- ✿ Different types of antiseptics/disinfectants
  - Chloroxylonol
  - Chlorhexidine
  - Ethyl alcohol
- ✿ Multimedia projector
- ✿ Lap top
- ✿ Flip charts/markers

## Content

### Definition

Antiseptics are chemical solutions used on skin and mucous membranes to remove or kill microorganisms. They should not be used on inanimate objects like instruments.

### Uses of Antiseptics

Antiseptics are used for the following:

- ✿ Surgical hand scrub
- ✿ Skin and vaginal preparation
- ✿ Hand washing in high risk situations e.g. lumbar puncture, chest tube insertion etc

### Common Types of Antiseptics:

- ✿ Alcohol 60-90%: commonly available and inexpensive. It is effective against all hepatitis viruses and HIV. They should not be used on mucous membranes e.g. Vagina as it dries and irritates mucous membranes thereby promoting growth of microorganisms.
- ✿ 2-4% Chlorhexidine gluconate (Hibitane, Hibiscrub): Excellent antiseptic which remains active against microorganisms on the skin for up to six hours.
- ✿ Chlohexidine with cetrimide (savlon): Active against microorganisms and has good persistent effect. It is not recommended for cleaning of vagina because of vaginal irritation in some cases. It is preferable to use iodophor or chlohexidine.
- ✿ 3% Iodine: Three percent iodine solutions are very effective antiseptics and are available as both aqueous (Lugol) and tincture (iodine in 70% alcohol) solutions.
- ✿ 10% Iodophor(eg betadine, povidone iodine -contain iodine in a complex form, less irritating form than iodine)
- ✿ 0.5-4% chloroxylonol (Dettol): Fairly effective against tuberculli and fungi. (*Not recommended for routine use*)

## Disinfectants

Disinfectants are chemicals used to kill microorganisms on inanimate objects e.g. instruments and surfaces. They should not be used on skin and mucous membranes

### Types of Disinfectants

High level disinfectants: they kill bacteria, viruses and fungi but do not kill bacterial endospores. Used for processing instruments e.g. 0.5% chlorine solution, glutaraldehyde.

Low level disinfectants: They are used for cleaning floors e.g. Phenols (carbolic acid), Benzalkonium chloride

### Correct use of Antiseptics

- ☼ Pour antiseptics into a small container for use
- ☼ Wash containers with soap and water and drip dry before refilling
- ☼ Label containers each time they are washed and refilled. Solutions are at increased risk of contamination if stored for more than one week
- ☼ Do not store cotton wool or cotton balls in antiseptics
- ☼ Pour antiseptics into containers without touching the rim or the solution
- ☼ Keep bottles closed
- ☼ Store in cool dark areas
- ☼ Allow antiseptics enough time before beginning procedure

### Inappropriate use of Antiseptics

- ☼ As antiseptics – they do not have the same killing property as chemical disinfectants and should not be used for this purpose
- ☼ Avoid topping up of dispensers because of risk of contamination.

## Summary

Antiseptics are used on skin and mucous membranes while disinfectants are used on instruments or inanimate objects. Prolonged storage results in contamination of antiseptics.

## Evaluation

- ☼ What is an antiseptic
- ☼ What is a disinfectant
- ☼ List 3 correct ways of using antiseptics

### Time

30 Minutes

### Learners' Objectives

- ✿ Explain steps of processing instruments and other items
- ✿ Demonstrate appropriate order for conducting the steps
- ✿ Identify how to appropriately organize an area of the facility for processing instruments and other items

### Session Overview

- ✿ Steps of processing instruments and other items
- ✿ Organizing an area for processing instruments and other items in the health facility
- ✿ Storage of processed instruments.

### Methods

- ✿ Lecture
- ✿ Discussion
- ✿ Demonstration and Return Demonstration
- ✿ Hand out
- ✿ Case studies

### Materials

- ✿ Flip charts stand and paper
- ✿ Coloured markers
- ✿ Masking tape
- ✿ Multimedia projector
- ✿ Lap top

## Content

To prevent transmission of infections via medical instruments, each step of instrument processing, decontamination, cleaning, and sterilization or high level disinfection, must be done properly.

### Step 1: Decontamination

Decontamination kills many disease-causing microorganisms such as hepatitis virus and HIV, making instruments and other items safer for handling during cleaning. Decontamination is performed by soaking used instruments and other items in 0.5% chlorine solution for 10 minutes.

### Making a Chlorine Solution

Use the following formula to prepare a dilute chlorine solution from liquid

$$\left[ \frac{\% \text{ Chlorine in solution}}{\% \text{ Chlorine solution desired}} \right] - 1 = \text{number parts water needed per part chlorine}$$

Example: to make a 0.5% chlorine solution from bleach with 3.5% active chlorine

$$\left( \frac{3.5\%}{0.5} \right) - 1 = 7 - 1 = 6$$

Thus, add 6 parts water to 1 part liquid bleach

Instruments should not be exposed to chlorine for prolonged periods, 10 minutes is sufficient for decontamination.

Large surfaces such as examination and operating tables, laboratory bench tops and other equipment that may have come in contact with blood or other body fluids also should be decontaminated. Wiping them down with a suitable disinfected towel or cloth (e.g. 0.5% chlorine or 1-2% phenol) is a practical, inexpensive way to decontaminate these items.

### Step 2: Cleaning

Cleaning instruments with detergent and water removes blood and particulate matter and improves the quality of subsequent high-level disinfection or sterilization. A brush should be used for cleaning most instruments. Staff members must wear thick utility gloves while cleaning instruments.

### Step 3: Sterilization or High-Level Disinfection (HLD)

To be effective, both sterilization and high-level disinfection (HLD) must be preceded by decontamination, careful cleaning, and thorough rinsing. When sterilization of instruments is not possible, HLD is the only acceptable alternative.

#### a. Sterilization

- ☼ Sterilization using steam, dry heat, or chemical solution destroys all microorganisms (bacteria, viruses, fungi, and parasites) including bacterial endospores, from instruments and other items.
- ☼ Sterilization is the method recommended for items that come in contact with the blood stream or tissues beneath the skin (such as reusable needles, syringes, and surgical and many delivery instruments)
- ☼ Jointed instruments, such as ring forceps, should be open or unlocked for sterilization.
- ☼ Sterilization can be done using steam (autoclaving), dry heat (oven) or chemical solutions.
- ☼ Sterilized items should then be used immediately or stored in a sterile, covered container.

##### i. Steam Sterilization

- Instruments may be sterilized either wrapped or unwrapped
- If items are to be wrapped before steam sterilization, use two layers of paper wrap or two layers of cotton fabric (do not use canvas);
- The unwrapped items or wrapped packs should be arranged to allow free circulation of steam
- Steam items at 121 degrees C (250 degrees F) and 106 kPa pressure (15 lbs/in<sup>2</sup>). Steam for 30 minutes for wrapped and 20 minutes for unwrapped items.

**Note:** Do not begin timing until the steam sterilizer reaches the desired temperature and pressure.

- ☼ Allow unwrapped items or wrapped packs to dry before removing them from the steam sterilizer. Allow items to cool before storage or use.

##### ii. Dry Heat Sterilization

- ☼ Items can be wrapped in foil or double-layered cotton fabric before dry heat sterilization.
- ☼ Sterilize items at 170 degrees C (340 degrees F) for 60 minutes, or 160 degrees C (320 degrees F) for 120 minutes.

**Note:** Do not begin timing until the oven reaches the desired temperature.

- ☼ Dry heat can dull sharp instruments and needles. These items should not be sterilized at temperatures higher than 160 degrees C.
- ☼ Items should be allowed to cool before they are removed from the oven.

### iii. Chemical Sterilization

- ☼ Cover all items with correct dilution of glutaraldehyde solution (Cidex); do not use sporicidin for sterilization, or an 8% formaldehyde solution (this is least desirable because it is dangerous to breathe)
- ☼ Jointed instruments such as ring forceps should be opened or unlocked.
- ☼ Soak items for 10 hours for Cidex, or 24 hours for formaldehyde, or as per manufacturer's instructions.
- ☼ Nothing should be added to or removed from the chemical solution once timing has begun. After soaking items, rinse them with boiled water ( which has been boiled for 20 mins)
- ☼ Air dry before use or storage

### b. High-Level Disinfection (HLD)

If sterilization is not available, High Level Disinfection is the only acceptable alternative for preparing instruments and other reusable items

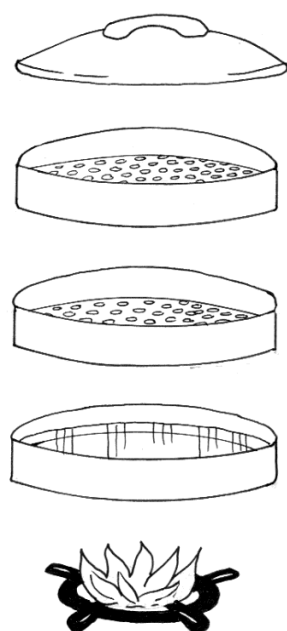
- ☼ High-Level Disinfection (HLD) is effective in eliminating all microorganisms except some bacterial endospores.
- ☼ There are two methods of HLD: boiling and chemical HLD

After either HLD procedure, items that are not used immediately should be air-dried and stored in a covered high-level disinfected container (for up to one week).

### High-Level Disinfection by Steaming

The best method of High-Level Disinfection of gloves and a useful method of High-Level Disinfection of cannulae used during manual vacuum aspiration (MVA) is to steam them in a steamer containing one to three tiers.





**Two-Tiered Steamer**

MVA cannulae may also be High-Level Disinfected or sterilized by other methods. However, High-Level Disinfection of gloves by other methods is less appropriate, e.g.

- ⊗ Gloves may be High-Level Disinfected by boiling, but this is **not** recommended, since it is difficult to dry gloves properly without contaminating them. If it is necessary to High-Level Disinfect gloves by boiling, the gloves may be worn wet.
- ⊗ Using chemicals to High-Level Disinfect gloves is impractical, since it is difficult to adequately rinse off the chemical residue.
- ⊗ Whenever possible, use disposable gloves, rather than reusable gloves, since gloves are difficult to process.

## Steps of HLD by Steaming

These steps should be followed for steaming gloves and MVA cannulae. Gloves are mentioned and shown in the illustrations as an example.

- 1 Decontaminate and clean gloves to be high-level disinfected.

- 2 Place water in the bottom tray (which has no holes).



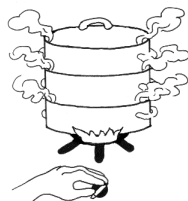
- 3 Fold back the cuffs of the gloves, arrange them in pairs and place them in the tray(s) that have holes. The number of gloves that will fit in each tray depends on the size of the tray (usually 5–15 pairs). If more than one layer of gloves is being steamed, loosely layer the gloves in a criss-cross design. Gloves should not be packed tightly in the tray



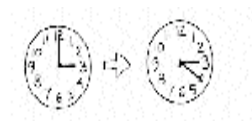
- 4 Stack the tray(s) of gloves on top of the bottom tray.



- 5 Place the lid on the top tray and bring the water to a boil. When steam comes out between the trays, this indicates the water is boiling. Reduce the heat, but maintain the water at a rolling boil (steam should continue to come out between the trays). High heat wastes fuel and causes the water to evaporate more quickly.



- 6 Steam the gloves for 20 minutes. Use a timer or make sure to record the time.



- 7 Remove each tray of gloves, shake off the excess water, and place the tray(s) on a second tray that does not have holes or contain water (a second bottom tray). (Do not place the tray containing the gloves directly on the countertop, since this may contaminate the gloves; remember; there are holes in the bottom of the tray.)



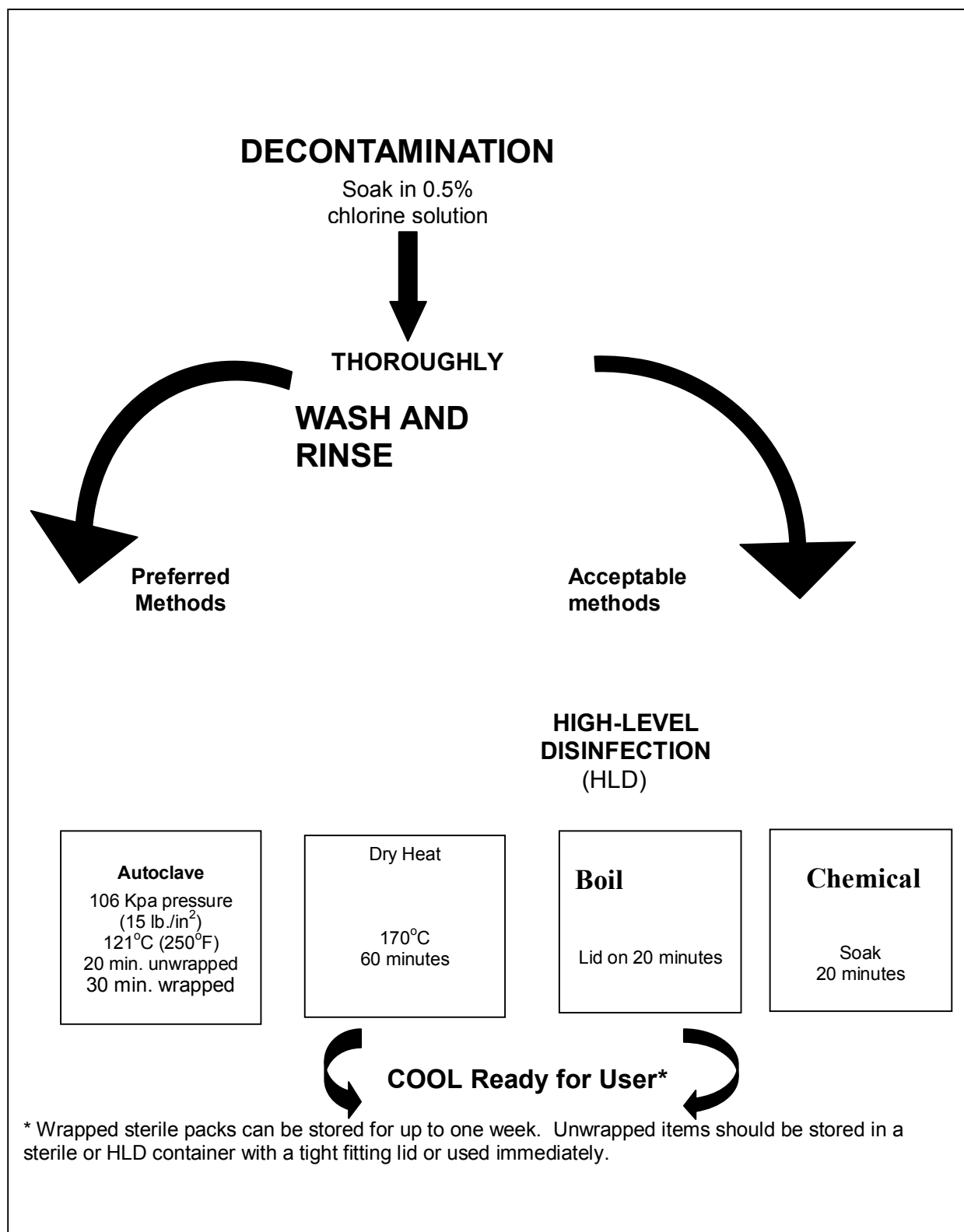
- 8 Use the gloves immediately or allow them to dry for 4–6 hours (drying may be difficult in areas of high humidity).
- 9 Storage: Store the gloves in a covered tray or put them in a high-level disinfected container and use within one week.

## Special Considerations for High-Level Disinfection

The following items require special attention. To High-Level Disinfect them, follow the procedures listed below.

Item	HLD Procedure
<b>Linen</b> (caps, gowns, masks, and surgical drapes)	<p>Linen should be steam-sterilized</p> <p>HLD of linen is impractical. HLD by boiling is impractical, since drying would be necessary, and HLD using chemicals is impractical, since rinsing with boiled water and drying would be necessary.</p>
<b>Instruments used during Manual Vacuum Aspiration (MVA)</b>	<p><i>Syringe:</i> HLD of the syringe after decontamination and proper cleaning is <b>not</b> necessary, because it does not come in contact with the client and is used only as a source of vacuum and as a receptacle for blood/tissue. In addition, HLD may actually decrease the life of the syringe, since HLD damages the syringe over time. If your facility requires HLD of the syringe, soak it in a chemical solution, such as glutaraldehyde (e.g. Cidex) or a 0.5% chlorine solution. Be sure that all parts of the syringe are completely submerged and that the barrel is filled with the solution.</p> <p><i>Cannula:</i> If sterilization of the Cannula is not possible, it may be High-Level Disinfected by boiling, soaking in chemicals, or steaming.</p> <ul style="list-style-type: none"><li>• <i>Boiling:</i> Research has shown that the cannula does <b>not</b> need to be submerged in water for HLD by boiling to be effective. However, the pot/boiler must be kept covered during boiling.</li><li>• <i>Chemical:</i> Completely fill and submerge the cannula in a solution that contains glutaraldehyde or in a 0.5% chlorine solution.</li><li>• <i>Steaming:</i> Follow the recommended steps</li></ul>

## Processing Instruments, Gloves and Other Items



## The Steps of Processing Instruments (*continued*)

### 1. Boiling

- Completely immerse items in water. Cover and boil for 20 minutes (start timing when the water begins to boil)
- Jointed instruments, such as ring forceps, should be opened or unlocked during HLD.
- All items must be completely covered during boiling (place items that float in a weighted, porous bag).
- Do not add anything to the pot after the water begins to boil.
- Air-dry before use or storage.

### 2. Chemical HLD

- Cover all items with correct dilution of properly stored disinfectant:
  - o Glutaraldehyde solution
  - o 0.5% or 0.1% chlorine solution
  - o 8% formaldehyde solution
- Jointed instruments, such as ring forceps, should be opened or unlocked
- Soak items for 20 minutes or as per manufacturer's instructions
- Nothing should be added to or removed from the chemical solution once timing has begun. After soaking items, rinse them with boiled water (which has been boiled for 20 minutes).
- Air-dry before use or storage.

## Storage of Processed Equipment and Instruments

- ⊗ Proper storage of HLD or sterilized items is as important as the HLD or sterilization process itself.
- ⊗ Items should be stored dry
- ⊗ If possible, store processed items in a sterile or HLD container in an enclosed cabinet.
- ⊗ Do not store pick-up forceps in a bottle filled with antiseptic solution (Microorganisms will multiply in the standing solution even if an antiseptic has been added)
- ⊗ HLD or sterilize pick-up forceps each day and store them dry in a high-level disinfected or sterile bottle.
- ⊗ Wrapped items must be considered contaminated when:
  - The package is torn or damaged
  - The wrapping is wet
  - The expiration date has exceeded.
- ⊗ Wrapped items can be used for up to one week. Wrapped items sealed in plastic can be used for up to one month.
- ⊗ Unwrapped items must be used immediately or stored in a covered sterile or HLD container (for up to one week).

## Summary

The session highlighted the importance of processing instruments and other medical items in stepwise manner to avoid contamination. Infection prevention in medical settings relies on the effective decontamination and sterilization of instrument in use.

## Evaluation

- ⊗ Describe steps for processing instruments and other medical items.
- ⊗ Demonstrate appropriate order for processing instruments in the health facility.
- ⊗ Explain strategies for storing processed instrument.

## MODULE 7 SESSION 5: USE AND DISPOSAL OF NEEDLES AND SHARPS

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### Time

30 Minutes

### Learners' Objectives

- ✿ List ways that health workers can be injured by sharps
- ✿ Describe actions that surgical teams can take to prevent or minimize injuries by needles/sharps
- ✿ Describe the proper procedures for safe use and disposal of needles/sharps
- ✿ Describe the proper procedures for giving injections and use of multi-dose vials.

### Session Overview

- ✿ How injuries commonly occur
- ✿ Injury prevention strategies
- ✿ Team effort for prevention of injuries during surgery
- ✿ Special consideration for health care providers living with HIV
- ✿ Post exposure care
- ✿ Procedure for giving injections and use of multi-dose vials

### Methods

- ✿ Lecture
- ✿ Discussion
- ✿ Demonstration and return Demonstration
- ✿ Handouts
- ✿ Case studies

### Materials

- ✿ Flip chart stand and paper
- ✿ Coloured markers
- ✿ Masking tape
- ✿ Multimedia projector
- ✿ Laptop



## Content

All staff that come in contact with sharps including doctors, nurses and those responsible for waste disposal are at risk of infections.

### How Injuries Commonly Occur

- ✿ Recapping hypodermic needles after use (this is one of the major causes of sharp-object injuries).
- ✿ Any manipulation of used sharps before disposal (such as bending, breaking or cutting hypodermic needles, which can cause the blood inside to splatter or cause staff to accidentally injure themselves)
- ✿ Accidentally sticking another staff member when there is sudden motion involving persons carrying unprotected sharps
- ✿ Leaving sharp items in areas where they are unexpected, such as on surgical drapes or bed linen
- ✿ Accidentally sticking or cutting themselves during surgical procedures in which there is limited visibility of the hands, many sharp instruments are used, or sharp instruments/suture needles are used in confined spaces (such as many obstetric/gynaecological and orthopaedic procedures)
- ✿ Handling or disposing of waste that contains used hypodermic needles or other sharps
- ✿ Unexpected client motion at the time of injections. Always warn clients when you are about to give them an injection
- ✿ During placement of needles or sharps into disposal container that are full or do not allow for easy insertion of the items
- ✿ When the surgeon or assistant uses their fingers as a guide or when tissue is hand-held during suturing, during manual retraction of tissue/organs, or when tying suture material with the needle still attached
- ✿ When needle holders with the needle are left exposed
- ✿ Other devices that cause stick-injuries and perforation of gloves include the use of suture needle without a needle holder, wire sutures, trocars, stylets, sharp pointed scissors, sharp pointed retractors, skin hooks, penetrating towel clips, tenaculi.
- ✿ Scalpel injuries occur most frequently when instruments are handed from the user to an assistant (transferring between personnel).

## To Prevent Injuries due to Sharps

- ☼ Handle hypodermic needles, syringes, and other sharps minimally after use, and use extreme care whenever sharps are handled.
- ☼ Avoid recapping needles and do not bend, break or cut them before disposal.
- ☼ Dispose of hypodermic needles, scalpel blades, and other sharps in puncture-resistant containers immediately (or as soon as practical) after use. (Disposal of sharps is described more fully in the next section of this module).
- ☼ Incinerate/burn or bury the container when three quarters full.
- ☼ Always wear utility gloves when disposing of sharps containers.
- ☼ Always wear utility gloves when washing sharps.
- ☼ Use the “hands-free technique” (a) to pass sharps during clinical procedures.
- ☼ Let clients know when you are going to give an injection to avoid startling client and causing an injury.
- ☼ Promote safety awareness during in-service session focused on supporting behaviour change to prevent or minimize needle stick and sharp instrument injuries.
- ☼ Manipulate or reposition scalpel blades using forceps to grasp the blade.
- ☼ Consider using staples in place of suture and suture needles, if it would be an appropriate option.
- ☼ Use curved needles with a needle holder as a safer option to straight, hand held needles.
- ☼ Blunt instruments can be an alternative for preventing injuries, such as rounded point scissors, non-penetrating towel clips, blunt retractors, and synthetic sutures instead of wire sutures.
- ☼ When transferring sharps between personnel, avoid hand-to-hand transfer. Create a safety zone using a flat tray, mat, part of the instrument stand, or designated area on the field where instruments can be placed by the user and safely picked up by the assistant. *Do not use a kidney basin from which items are hard to pick-up.*

## The Hands Free Technique for Passing Sharps during Clinical Procedures

Health care workers can accidentally stick each other if or when passing sharps during a procedure, there is sudden motion involving persons carrying unprotected sharps (such as on surgical drapes). Unprotected sharps should not be passed directly from one person to another.

In the operating theatre or procedure room, pass sharp instruments and other items in such a way that the surgeon and assistant are never touching the instrument or other item at the same time. This is known as the hands-free technique.

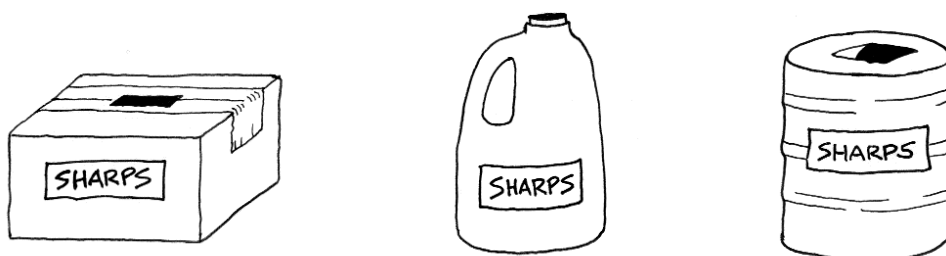
## Disposal of Sharp Objects (needles, razors, scalpel, blades)

- ☼ Wear thick household gloves
- ☼ Dispose of all sharp items in a puncture-resistant container, which can be made of easily available materials such as a cardboard box, a tin can with lid, or a heavy plastic bottle. *Do not recap.*
- ☼ Place the container close to the area where it will be used so that workers do not have to carry sharp items for long distances before disposal

- ☼ When the “sharps” container is three-quarters full, cap, plug or tape it tightly
- ☼ Dispose of container when three-quarters full by burying. (Needles and other sharp objects may not be destroyed by burning and may later cause injuries. Incineration or burning in a container, however, does make those items less scavengeable.)
- ☼ Wash hands after handling sharps containers. Decontaminate and wash gloves

Note: Avoid accidental needle pricks. Do not bend or break needles prior to disposal and needles should not be recapped.

**Sharp-disposal container:** A puncture-resistant container for disposal of used needles and other sharp objects. A sharps-disposal container may be made out of a heavy cardboard box, an empty plastic jug, or a metal container.



Sharp-disposal container

## Giving Injections

To reduce the risk of transmitting infections between clients:

- ☼ **Always** use a new or correctly reprocessed hypodermic needle and syringe every time an injection is given.
- ☼ **Never** change the needle without also changing the syringe between clients. Reusing the same syringe to give injections to multiple clients even if the needle is changed is **not** a safe practice.

## Before Giving an Injection

- ☼ If there is visible dirt, wash the injection site with soap and water.
- ☼ Wipe the client's skin at the injection site with an antiseptic solution to minimize the number of microorganisms and reduce the risk of infections. Using a fresh swab, wipe in a circular motion from the centre outward.
- ☼ If alcohol is used, allow the alcohol to dry in order to provide maximum effectiveness in reducing microorganisms.

*Unexpected client motion at the time of injection can lead to accidents. Therefore, always warn clients when you are about to give an injection.*

To avoid needle stick accidents, follow the instructions on pages above for proper disposal and decontamination of used needles and syringes.

### **To avoid transmitting infections when giving IV fluids:**

- ☼ Unhook the needle or catheter from the IV line, and dispose of it in a sharps-disposal container.
- ☼ Throw away the IV line and any remaining fluid. Microorganisms can survive and grow in IV fluids; if the IV line and bag/bottle of fluid are used again, infection can be transmitted to other clients.
- ☼ Never use the same IV line and fluid bag/bottle with multiple clients.

### **Use of Multi-dose Vials**

#### **Before filling a syringe from a multi-dose vial:**

- ☼ Check the vial to be sure there are no leaks or cracks
- ☼ Check the solution to be sure it is not cloudy and that there is no particulate matter in the vial.

Note: Most solutions that come in vials are clear. One exception is the injectable contraceptive Depo-Provera, which is milky.

- ☼ Wipe the top of the vial with a fresh cotton swab soaked with 60-70% alcohol; allow to dry.

### **To reduce the risk of transmitting infections between clients**

- ☼ **Always** use a new or correctly processed hypodermic needle and syringe every time medication is withdrawn from a multi-dose vial. Reusing the same syringe to give injections to multiple clients, even if the needle is changed, is **not a safe** practice.
- ☼ **Never** leave one needle inserted in the vial cap for multiple uses. This provides a direct route for microorganisms to enter the vial and contaminate the fluid between each use.
- ☼ Wash hands with soap and water
- ☼ Where there is bleeding, allow the site to bleed briefly. (There is *no* scientific evidence that cleaning the wound with an antiseptic or squeezing the wound decreases the risk of transmitting blood borne organisms).
- ☼ If a mucous membrane has been injured or splashed, flush with a large amount of water.
- ☼ If the eyes have been splashed, irrigate with clean water, saline, or sterile irrigating solution.
- ☼ In the absence of water, an antiseptic solution can be used to flush the area but remember that antiseptic solutions have not been proven to be any more effective than soap and water
- ☼ Assess the injured health worker's risk for infection following exposure - depth of wound, type of instrument involved, amount and type of bodily fluid.
- ☼ If feasible, determine the HIV status of the source patient, with appropriate counselling and disclosure of serological status. This is a particularly important step in settings where

resources are limited and recommended prophylactic drugs may not be readily available. Determining that the source patient is HIV negative will eliminate the need for drug therapy, its attendant side effects, costs and emotional stress of not knowing the risk following exposure or whether the drug therapy will work. Based on the assessment findings, determine the need for prophylaxis.

- ☼ Post exposure care includes voluntary counselling, HIV testing, treatment, and follow-up care.
- ☼ If the health care worker will receive antiretroviral drugs, counsel the worker about the possible side effects associated with the prophylactic drugs (ZDV and 3TC). Although these drugs are usually well tolerated, some of the more common side effects include
  - Upset stomach (nausea, vomiting and diarrhoea), tiredness, or headache (ZDV).
  - Upset stomach (rarely, pancreatitis with 3 TC)
  - Jaundice and kidney stones in people taking ZDV; this can be reduced by drinking 48 ounces of fluids during every 24-hour period.
- ☼ Counsel the injured health worker about behaviours to prevent transmission of HIV, such as not providing blood, organ, or semen donations; abstaining from sexual intercourse. If abstinence will be difficult or not possible for the health worker, counsel her/him to use latex condoms consistently and correctly to reduce the sexual transmission of HIV. Encourage the injured health care worker to include their partner in counselling. In settings where breast milk substitutes are affordable, accessible and can be safely used, women may be advised to avoid breastfeeding during the PEP period to prevent exposing their infants to HIV in the breast milk. Post-exposure care should include the following, where feasible:
  - Screening / Testing for baseline and periodically up to 6 months after exposure (e.g. at 6 weeks HIV antibody testing of the health care worker, as soon as possible, after 12 weeks and 6 months).
  - When antiretroviral drugs are being taken for PEP, assessment of toxicity with complete blood count, kidney and liver function tests before starting treatment and at 2 weeks after starting treatment.
  - Instruct the health care staff under treatment to report any sudden or severe flu-like illness that occurs during the follow-up period.
  - Counsel the injured worker regarding her/his emotional response, fears, and/or concerns regarding the reaction of their partner or spouse.

Note: Use of prophylactic therapy depends on the availability of drugs. In many industrialized countries, all occupational injuries where the source patient is known to be HIV-infected or at high risk for HIV infection are considered for antiretroviral drugs. In some middle income countries, the recommendations apply only to serious accidents. Currently, in many resource-constrained countries, antiretroviral drugs may not be available or only one drug may be available for post exposure care.

## Summary

The essential elements of Post Exposure Care are:

- ☼ Immediate wound care
- ☼ Counselling injured health care worker
- ☼ Risk assessment of health care worker

- ⊗ Counselling, testing of source patient, if possible
- ⊗ Counselling, testing of injured health care worker, if possible
- ⊗ Antiretroviral drug therapy, if indicated and available
- ⊗ Follow-up monitoring and counselling

## Evaluation

- ⊗ List ways by which health care workers can be injured by sharps.
- ⊗ Describe strategies for the prevention of injuries during surgery
- ⊗ Describe the appropriate procedures for the disposal of needles and sharps

## MODULE 7 SESSION 6: HOUSEKEEPING AND WASTE DISPOSAL

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### Time

30 Minutes

### Learners' Objectives

- ✿ Explain housekeeping in a health facility
- ✿ List five (5) general housekeeping guidelines
- ✿ Describe appropriate waste disposal
- ✿ State the importance of correct disposal of waste

### Session Overview

- ✿ Importance of Housekeeping and waste disposal
- ✿ Role of housekeeping in infection prevention
- ✿ Five general housekeeping guidelines
- ✿ Preparation of disinfectant cleaning solution

### Methods

- ✿ Lecture
- ✿ Discussion
- ✿ Demonstration and return Demonstration
- ✿ Handouts
- ✿ Case studies

### Materials

- ✿ Flip chart stand and paper
- ✿ Coloured markers
- ✿ Masking tape
- ✿ Multimedia projector
- ✿ Laptop

## Content

### Definition

**Housekeeping:** The general cleaning and maintenance of cleanliness in a health care facility. In addition to cleanliness, the purpose of housekeeping is to reduce the number of micro organisms in the facility (thus reducing clients' and staff members' risks of infections) and provide an appealing work and service-delivery space.

### Importance of Housekeeping and Waste Disposal

The purpose of proper disposal of clinic wastes is to:

- ✿ Prevent spread of infection to clinic personnel who handle the waste and to the local community.
- ✿ Protect those who handle waste from accidental injury
- ✿ Provide an aesthetically pleasing atmosphere

Creating open piles of waste should be avoided because they:

- ✿ Pose infection risks and fire hazards
- ✿ Produce foul odours
- ✿ Attract insects
- ✿ Are unsightly

If not disposed of properly, contaminated waste is a potential source of infection for both staff and the local community.

- ✿ Always keep waste containers in convenient places for users outside or leave it in an open pit.
- ✿ Always dispose of contaminated waste properly; never simply throw it outside or leave it in an open pit.
- ✿ Always wear utility gloves when handling and transporting waste and wash both the gloves and your hands afterwards.

### Liquid Waste

- ✿ If possible, pour liquid waste down a utility drain or into a flushable toilet or latrine. Know where the drain empties.
- ✿ If you cannot pour liquid waste down a drain or toilet, bury it in a pit.
- ✿ Always be careful when disposing of liquid waste. Do not allow the liquid to splash while you are pouring it.



## Role of Housekeeping in Infection Prevention

The cleanliness of a health care facility is vital to the health and safety of its clients, staff and visitors, as well as to the community at large. It is the foundation for preventing the transmission of infections in the facility. The facility's cleanliness is often the first thing that a client or visitor notices, and it is a sign of the staff's concern for the clients, other staff and visitors. In addition, an appealing environment contributes to staff members' satisfaction in working at the facility (which in turn promotes use of the services). In places where clients and visitors may be unaccustomed to the standards of hygiene required in a health care facility, health care workers need to pay special attention to housekeeping.

### General Housekeeping Guidelines

- ✿ Cleaning schedules should be created, posted where all staff responsible for housekeeping can see them, and closely followed.
- ✿ Always wear gloves (preferably heavy utility gloves) and shoes when cleaning client-care areas.
- ✿ Cleaning should be done in a way that minimizes the scattering of dust and dirt that may contain microorganisms. Use a damp or wet mop or cloth to clean walls, floors, and surfaces; avoid dry-dusting or sweeping, which increases the spread of dust and microorganisms
- ✿ Scrubbing is the most effective way to remove dirt and microorganisms. Scrubbing should be a part of every cleaning procedure.
- ✿ Wash surfaces, such as walls, from top to bottom so that debris falls to the floor where it can be cleaned up last. Similarly, clean highest fixtures first and work down – for example, clean ceiling lamps first, then shelves, then tables and then the floor.
- ✿ Change cleaning solutions when they appear dirty. The disinfectant's ability to kill potentially infectious microorganisms is reduced when the solution contains a lot of soil.

**Note:** Supplies and equipment used for cleaning need to be cleaned to prevent the spread of infections. Housekeeping equipment, such as mops, buckets, and cloths, should be decontaminated, cleaned in detergent and water, rinsed in clean water, and allowed to dry before being reused. Contaminated cleaning equipment spreads, rather than reduces microorganisms in the environment.

### Waste Disposal

Contaminated wastes may carry high loads of microorganisms, which are potentially infectious to any persons who contact or handle them, and to the community at large, if not disposed off properly. Contaminated wastes include blood, pus, urine, stool and other body fluids as well as items that contact them such as gauze or used dressings. Wastes from procedure rooms, delivery rooms, operating rooms and laboratories should be considered contaminated. In

addition, contaminated waste may include items that can inflict injury (e.g. used needles and blades) and spread blood-borne diseases such as hepatitis B and HIV infection.

Proper handling of waste items minimizes the spread of infection to clinic personnel and to the local community. Contaminated wastes should be transported to disposal sites in covered containers where available. Persons handling wastes should wear heavy utility gloves. All sharp items should be disposed in puncture-resistant containers. Liquid waste should be carefully poured down a utility drain or flushable toilet or latrine. Hands, gloves and containers should be washed after disposal of infectious waste.

It is best to burn or bury contaminated waste rather than use community waste collection because of the likelihood of the waste being deposited into a community dump site. This would increase the risk of exposure to other people. Burning or burying on site may be more difficult, but it is best for the community.

### **Types of Waste Disposal**

- ☼ General waste - uncontaminated paper boxes, packaging materials, bottles and plastic containers, etc
- ☼ Medical waste - blood and blood products, other body fluids, materials containing fresh or dried blood or body fluids, e.g. bandages, sharps used or unused and used IUDs
- ☼ Hazardous chemical waste - chemical waste, which is potentially toxic, e.g. cleaning products, disinfectants, cytotoxic drugs and radioactive compounds

### **Handling Waste Containers**

- ☼ Use non-corrosive washable containers (plastic or galvanized metal) with covers for contaminated waste
- ☼ Place waste containers at convenient places for users (carrying waste from place to place increases the risk of infection for handlers)
- ☼ Equipment used to hold and transport wastes must not be used for any other purpose in the clinic or health care facility
- ☼ If available use utility gloves when handling wastes
- ☼ Wash all waste containers with a disinfectant cleaning solution (0.5% chlorine solution) and rinse with water. (Clean contaminated waste containers each time they are emptied and non-contaminated ones when visibly soiled)
- ☼ When possible use separate containers for combustible and non-combustible wastes to prevent workers from having to handle and separate waste by hand later
- ☼ Combustible (burnable) wastes include paper, cardboard and contaminated wastes such as used dressings and gauze
- ☼ Non-combustible (non-burnable) wastes include glass, metals and plastics
- ☼ Wash hands after handling waste

### **Disposal of Liquid Contaminated Wastes (blood, faeces, urine, and other body fluids)**

- ☼ Wear thick household (utility) gloves when handling and transporting wastes
- ☼ Carefully pour wastes down a utility sink, drain or pour into a flushable toilet. Liquid wastes can also be poured into the latrine. Avoid splashing!
- ☼ Rinse the toilet or sink carefully and thoroughly with water to remove residual wastes. Avoid splashing!
- ☼ Decontaminate specimen container with 0.5% chlorine solution or other locally available and approved disinfectant by soaking for 10 minutes before washing
- ☼ Wash hands after handling liquid waste
- ☼ Decontaminate and wash gloves

### **Disposal of Solid Wastes (used dressings and other items contaminated with blood and organic materials)**

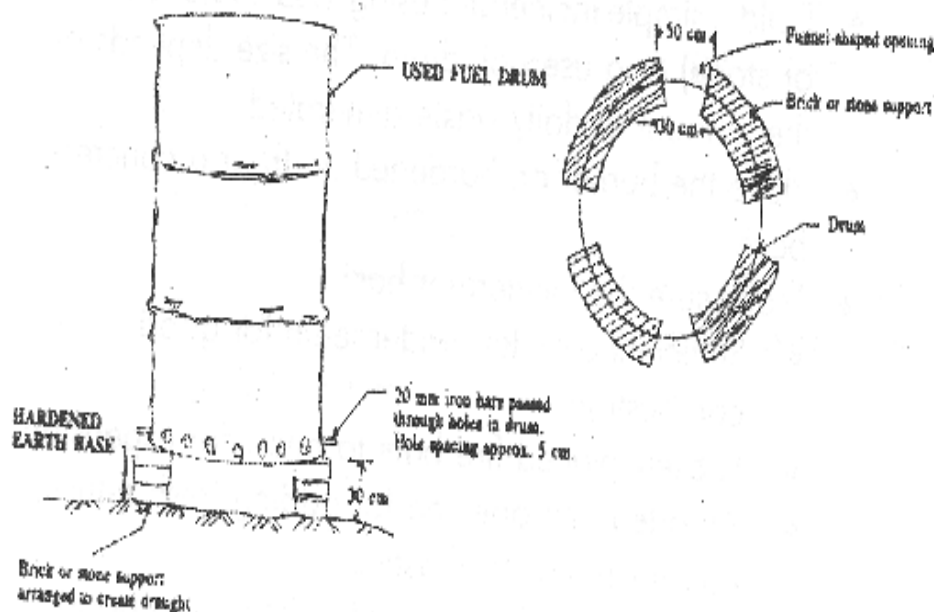
- ☼ Wear thick household (utility) gloves when holding and transporting wastes
- ☼ Dispose of solid wastes in non-corrosive washable containers (plastic or galvanized metal) with tight fitting covers
- ☼ Collect the waste containers regularly and transport the combustible ones to the incinerator (if incinerator is not available, burn or bury). Bury non-combustible wastes
- ☼ Wash hands after handling wastes
- ☼ Decontaminate and wash gloves

### **Disposal of used Chemical Containers**

- ☼ Rinse glass containers thoroughly with water. Glass container may be washed with detergent, rinsed and re-used
- ☼ For plastic containers, that contains toxic substances such as glutaraldehyde (e.g. Cidex or Sporicidin), rinse three times with water and dispose by burying. *Do not reuse these containers for other purposes*

### **Building a Simple Drum incinerator for Waste Disposal**

- ☼ Select a site away from the direction of the wind
- ☼ Build a simple incinerator using local materials (mud or stone) or a used oil drum. The size depends on the amount of daily waste generated
- ☼ Place the burner on hardened earth or a concrete base
- ☼ Make sure the incinerator has:
  - sufficient air inlets underneath for good combustion
  - loosely placed fire bars to allow for expansion
  - an adequate opening for adding fresh refuse and for removal of ashes
  - a long enough chimney to allow for a good draught and evacuation of smoke
- ☼ Burn all combustible wastes, such as paper and cardboard, as well as used dressings and other contaminated wastes
- ☼ If the waste or refuse is wet, add kerosene so that a hot fire burns all the waste
- ☼ Ash from incinerated material can be treated as non-contaminated waste



Design for a Simple Oil Drum Incinerator

### Making and using a Burying site for Waste Disposal

- ☼ Bury in a specified location:
  - Select a site at least 50 m away from any water source, to prevent contamination of the water table
  - The site should have proper drainage, should be located downhill from any wells, and free of standing water
  - Ensure that the burial site is not in an area which floods
- ☼ Dig a pit 1 m (3–4 ft) wide and 2 m (6 ft) deep. The bottom of the pit should be 6 ft above the water table
- ☼ Cover with 15–30 cm (6–12 in) of earth each day (final cover should be 30 cm or 24 in deep)
- ☼ Fence the site to keep animals and children away

## Summary

- ✿ Effective housekeeping within the health facility and appropriate disposal of dry and wet wastes are essential for infection Prevention.
- ✿ Observing the general guidelines for housekeeping is the easiest way to keep the facility infection free.

## Evaluation

- ✿ Describe the five (5) Housekeeping guidelines
- ✿ Describe the methods of waste disposal.

## ***MODULE 8***

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## MODULE 8

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### INTEGRATED SERVICES IN REPRODUCTIVE HEALTH (RH)

The aim of this module is to emphasise the need for integrated services in Reproductive Health in order to increase program coverage. Over the years, vertical programs have not been quite helpful in addressing all community health issues, because clients are often reluctant to access some services that may stigmatize them when standing alone whereas, through Integrated services, client may purchase several related services during one visit. This is beneficial to all, the client, provider and program managers.

- Session 1:** STIs/HIV/AIDS
- Session 2:** Cervical Cancer Screening Services.
- Session 3:** Male Involvement.

## MODULE PLAN - INTEGRATED SERVICES IN REPRODUCTIVE HEALTH

TITLE	DURATION	OBJECTIVES	METHODS	MATERIALS
<b>Session 1:</b> Sexual Transmitted Infection (STIs) HIV/AIDS	2 hours	<ul style="list-style-type: none"> <li>☼ Explain what is meant by STI and HIV/AIDS</li> <li>☼ List modes of transmission</li> <li>☼ List major signs and symptoms of STIs/HIV/AIDS</li> <li>☼ Consequences of improper treatment of STIs</li> <li>☼ Explain ways of preventing STIs and HIV/AIDS</li> <li>☼ Explain factors enhancing transmission of HIV/AIDS</li> </ul>	<ul style="list-style-type: none"> <li>☼ Brain storming</li> <li>☼ Discussion</li> <li>☼ Lecture</li> </ul>	<ul style="list-style-type: none"> <li>☼ Flip chart stand and paper</li> <li>☼ Markers</li> <li>☼ Poster on STIs</li> <li>☼ Film on STIs and HIV/AIDS</li> <li>☼ Leaflets on STIs/HIV/AIDS</li> <li>☼ Multimedia projector</li> <li>☼ DVD/VCR/TV</li> <li>☼ Syndromic Management chart</li> </ul>
<b>Session 2:</b> Cervical Cancer Screening Services.	45 Minutes	<ul style="list-style-type: none"> <li>☼ Define Papanicolaou smear</li> <li>☼ State the indications for Pap smear</li> <li>☼ Describe the procedure for obtaining Pap smear</li> <li>☼ Discuss the various interpretation results</li> </ul>	<ul style="list-style-type: none"> <li>☼ Brainstorming</li> <li>☼ Discussion</li> <li>☼ Lecture</li> <li>☼ Demonstration/Return demonstration</li> </ul>	<ul style="list-style-type: none"> <li>☼ Flipchart / markers</li> <li>☼ Multimedia Projector.</li> <li>☼ Slide, samples of Pap smear fixative</li> <li>☼ Wooden spatula.</li> </ul>
<b>Session 3:</b> Male Involvement in Reproductive Health	40 Minutes	<ul style="list-style-type: none"> <li>☼ Discuss the importance of male involvement in RH</li> <li>☼ List benefits of male involvement</li> <li>☼ List the range of services for men</li> <li>☼ Discuss treatment / referral</li> <li>☼ Discuss barriers to male involvement</li> </ul>	<ul style="list-style-type: none"> <li>☼ Lecture</li> <li>☼ Discussion</li> </ul>	<ul style="list-style-type: none"> <li>☼ Flip chart stand/paper</li> <li>☼ Markers</li> <li>☼ Masking tape</li> </ul>



### Time

2 hours

### Learners' Objectives

- ✿ Explain what is meant by STIs and HIV/AIDS
- ✿ To educate all clients about the risk of STIs/HIV/AIDS
- ✿ List major signs and symptoms of STIs/HIV/AIDS
- ✿ Consequences of improper treatment of STIs
- ✿ Explain ways of preventing STIs and HIV/AIDS
- ✿ To recognize, treat and/or refer clients with complaints suggestive of sexually transmitted infections including HIV/AIDS

### Session Objectives

- ✿ Introduction
- ✿ Transmission of STIs and HIV/AIDS
- ✿ Signs and Symptoms of STIs
- ✿ Management of STIs and HIV/AIDS
- ✿ Consequences of STIs and HIV/AIDS
- ✿ Prevention of STIs and HIV/AIDS

### Methods

- ✿ Brainstorming
- ✿ Discussion
- ✿ Lecture
- ✿ Group work

### Materials

- ✿ Flip chart stand/paper
- ✿ Markers
- ✿ Posters on STIs
- ✿ Films on STIs/HIV/AIDS
- ✿ VCR and TV.
- ✿ Syndromic Management chart
- ✿ Multimedia projector

## Content

### Description

Sexually transmitted infections (STIs) are a group of communicable diseases that are transferred predominantly by sexual contact. STIs can cause pain and infertility, and if left untreated, death.

### Transmission of STIs

STIs are spread mainly by sexual intercourse (vaginal, anal or oral). STIs are not spread by casual contact. HIV, which causes AIDS, can also be passed from an infected woman to her child during pregnancy, birth, or through breast milk, infected sharps and transfusion with infected blood.

### Types of STIs

- ✿ Gonorrhoea
- ✿ Chlamydia
- ✿ Candidiasis
- ✿ Trichomoniasis
- ✿ Gardnerella vaginalis/bacterial vaginosis
- ✿ Chancroid
- ✿ Syphilis
- ✿ Lymphogranuloma venereum (LGV)
- ✿ Herpes genitalis
- ✿ Genital warts (*Condylomata acuminata*)
- ✿ Human immuno-deficiency virus (HIV)/acquired immune deficiency syndrome (AIDS)

### Management of STIs

Most STIs can be cured (although some cannot e.g. Herpes and HIV) if the person has prompt correct diagnosis and treatment from health workers. Some STIs have symptoms that go away without treatment e.g. early stages of syphilis. If not treated, the germs stay in the body and cause damage to the organs. Some STIs have no symptoms, particularly in women. Like HIV infection, the person can look and feel healthy but can still infect others and/or unborn babies. HIV is transmitted more easily to a person with genital sores or discharges from an STI.

It is important to be tested if one thinks that he/she has been exposed to an STI. STIs can be diagnosed at a clinic and should be treated as soon as possible using the syndromic management chart/regimen

## Some Common Sexually Transmitted Infections

### 1. Sexually Transmitted Infections with Discharges

Disease	Signs and symptoms	Management
Gonorrhoea	Men <ul style="list-style-type: none"> <li>⊗ Purulent urethral discharge, pain during urination, frequency of urination</li> </ul>	<ul style="list-style-type: none"> <li>⊗ Take swab of urethral discharge for microscopy, culture and sensitivity</li> <li>⊗ If possible, request VDRL and encourage HIV screening</li> </ul>
	Women <ul style="list-style-type: none"> <li>⊗ Abnormal vaginal discharge, pain during urination, prolonged menstruation or heavy bleeding</li> <li>⊗ Often there are no symptoms</li> </ul>	Perform speculum examination and take an endocervical and urethral swab for microscopy, culture and sensitivity <ul style="list-style-type: none"> <li>⊗ Conduct digital examination</li> <li>⊗ If possible request VDRL and encourage HIV screening</li> </ul> Drugs <ul style="list-style-type: none"> <li>⊗ Spectinomycin, 2 gm IM stat (Complicated cases 2 gm IM twice daily for 7 days)</li> </ul> or <ul style="list-style-type: none"> <li>⊗ Ciprofloxacin 500 mg stat (not for pregnant women, children and adolescents)</li> </ul>
		<ul style="list-style-type: none"> <li>⊗ Amoxycilin (Amoxil) 3.0 gm</li> </ul> or <ul style="list-style-type: none"> <li>⊗ Ofloxacin (Tarivid) 40 mg tabs stat</li> </ul> or <ul style="list-style-type: none"> <li>⊗ IM Rocephin (Ceftriaxone) 125 gm stat</li> </ul> or <ul style="list-style-type: none"> <li>⊗ Cefixim 450 mg orally stat</li> <li>⊗ Ask the client to abstain from sexual intercourse or use a condom during this period of treatment and return to clinic after 7 days</li> <li>⊗ Issue STI contact tracking form, because you may need to treat contact</li> <li>⊗ If there is no improvement, refer to a specialist (STI) clinic</li> </ul>
Chlamydia (mucopurulent discharge)	Men <ul style="list-style-type: none"> <li>⊗ Mucoid to purulent urethral discharge, dysuria or urinary frequency</li> <li>⊗ Sometimes there is no symptom</li> </ul>	<ul style="list-style-type: none"> <li>⊗ Take swab of urethral discharge for microscopy, culture and sensitivity</li> <li>⊗ If possible, request VDRL and encourage HIV screening</li> <li>⊗ Perform speculum and digital pelvic examination to detect adnexal tenderness and/or masses</li> </ul>

Disease	Signs and symptoms	Management
	<p><i>Women</i></p> <ul style="list-style-type: none"> <li>⊗ Yellow mucopurulent discharge from the cervix</li> <li>⊗ Often the discharge may be regarded as normal by client</li> </ul>	
		<p><i>Drugs</i></p> <ul style="list-style-type: none"> <li>⊗ Tetracycline caps 500 mg qid x 7 days</li> </ul> <p><i>Note:</i> Clients should avoid milk or milk products two hours before and after taking tetracycline</p> <p><i>Or</i></p> <ul style="list-style-type: none"> <li>⊗ Doxycycline caps 100 mg bd x 10–14 days</li> <li>⊗ Erythromycin 500 mg 6 hourly x 7 days</li> <li>⊗ Azithromycin 1 gm stat</li> </ul> <p><i>Note:</i> Doxycycline and tetracycline are contraindicated during pregnancy.</p>
Non-gonococcal urethritis	<ul style="list-style-type: none"> <li>⊗ Dysuria, urethral or cervical muco-purulent or mucoid discharge, frequency of urination</li> <li>⊗ Sometimes the only complaint is increased vaginal discharge in women</li> </ul>	<ul style="list-style-type: none"> <li>⊗ Treat as outlined under each of the following causes: <ul style="list-style-type: none"> <li>- Chlamydia infection</li> <li>- Trichomoniasis</li> </ul> </li> <li>⊗ If in doubt of diagnosis, give Doxycycline caps 100 mg bd x 7 days or refer</li> </ul>
<p>Pelvic inflammatory disease (PID) (infection of internal genital organs like the cervix, uterus, tubes, ovaries and other adjacent tissues)</p> <p>Causative organisms include <i>Gonorrhoea</i>, <i>Chlamydia</i>, gram negative bacteria like <i>E. coli</i>, and anaerobic</p>	<ul style="list-style-type: none"> <li>⊗ Usually there is pain and tenderness in the lower abdomen with or without vaginal discharge and fever</li> <li>⊗ It often occurs in the first 5–10 days of menstruation</li> <li>⊗ Painful sexual intercourse (dyspareunia)</li> </ul>	<ul style="list-style-type: none"> <li>⊗ A pelvic examination may reveal cervical discharge, spotting, or tenderness with or without tender masses in the pelvis</li> <li>⊗ If facilities are available, laparoscopy could be performed and swab taken from the pouch of Douglas</li> <li>⊗ <i>Discourage self medication with antibiotics</i></li> </ul> <p>For mild cases, give the following drugs:</p> <ul style="list-style-type: none"> <li>⊗ Ampicillin caps 500 mg qid or Septrin 960mg bd x 5 days</li> </ul> <p><i>or</i></p> <p>Doxycycline 100mg b.d x 7 days</p> <p><i>And</i></p> <ul style="list-style-type: none"> <li>⊗ Metronidazole (Flagyl) 200–400 mg tds x 7 days</li> </ul> <p><i>or</i></p> <ul style="list-style-type: none"> <li>⊗ Ofloxacin (Tarivid) tabs 200 mg bd x 5 days</li> </ul>

Disease	Signs and symptoms	Management
bacteria		<ul style="list-style-type: none"> <li>⊗ Treat sexual partner with the same drug regimen if chlamydia or gonorrhoea is suspected</li> <li>⊗ Ask client to return to the clinic after seven days or earlier if no improvement</li> </ul> <p><i>Refer the client to a hospital if:</i></p> <ul style="list-style-type: none"> <li>⊗ you are in doubt of findings or diagnosis</li> <li>⊗ you suspect ectopic pregnancy or appendicitis</li> <li>⊗ there is pelvic mass or abscess</li> <li>⊗ the patient is severely ill</li> </ul>
Candidiasis	<ul style="list-style-type: none"> <li>⊗ Thick, whitish curd-like vaginal discharge accompanied by vaginal discomfort and vulval itching</li> <li>⊗ Sometimes there is pain during coitus or urination</li> <li>⊗ In the male there may be itching of the genitals and white fluid under foreskin (if not circumcised)</li> </ul>	<ul style="list-style-type: none"> <li>⊗ Perform pelvic examination including taking a high vaginal swab for wet microscopy and to exclude the presence of foreign body or malignancy of the cervix</li> <li>⊗ Check urine for sugar to screen for diabetes mellitus</li> </ul> <p><i>Treat as follows:</i></p> <ul style="list-style-type: none"> <li>⊗ Canesten (clotrimazole) pessaries daily x 6 days</li> </ul> <p><i>or</i></p> <ul style="list-style-type: none"> <li>⊗ Nystatin pessaries bd x 10–14 days</li> <li>⊗ Paint vagina with 1% aqueous solution of Gentian violet daily x 14 days (demonstrate to client how to apply)</li> </ul> <p><i>or</i></p> <ul style="list-style-type: none"> <li>⊗ Miconazole or ketoconazole or pessaries if available</li> <li>⊗ For men, Nystatin cream bd x 7 days</li> </ul>
Trichomoniasis	<ul style="list-style-type: none"> <li>⊗ Copious, watery and frothy creamy or greenish yellow vaginal discharge associated with itching and dysuria</li> <li>⊗ Vulva has a foul smell from discharge</li> </ul>	<ul style="list-style-type: none"> <li>⊗ Perform pelvic examination including speculum examination and take a high vaginal swab for microscopy</li> <li>⊗ Exclude foreign body or malignancy of cervix</li> </ul> <p><i>Treat as follows:</i></p> <ul style="list-style-type: none"> <li>⊗ Metronidazole (Flagyl) 2 gm stat or 400-500 mg tds x 7 days (client should avoid alcohol during medication)</li> </ul> <p><i>or</i></p> <ul style="list-style-type: none"> <li>⊗ Tinidazole 2 g orally stat or 500 mg bd for 5 days</li> <li>⊗ During pregnancy use clotrimazole 100 mg intravaginally at bed time for 7 days. This will give symptomatic relief and some cure</li> <li>⊗ Treat contacts</li> </ul> <p><i>Note:</i> Metronidazole is generally not recommended for use in the first</p>

Disease	Signs and symptoms	Management
		trimester of pregnancy
Gardnerella vaginalis	<ul style="list-style-type: none"> <li>☼ Watery vaginal discharge with fishy odor</li> <li>☼ Itching may be present</li> </ul>	<ul style="list-style-type: none"> <li>☼ Perform digital and speculum pelvic examination</li> <li>☼ Exclude the presence of foreign bodies or malignancies of the genital tract</li> <li>☼ Take a high vaginal swab for microscopy</li> </ul> <p><i>Treat as follows:</i></p> <ul style="list-style-type: none"> <li>☼ Metronidazole tabs 400 mg bd orally for 7 days <b>or</b> Metronidazole 2mg orally stat <b>or</b> metronidazole 0.75% gel intra-vaginally bd for 5 days.</li> </ul> <p><i>or</i></p> <ul style="list-style-type: none"> <li>☼ Clindamycin 300mg orally bd for 7 days <b>or</b> clindamycin 2% vagina cream 5g intravaginally at bed time for 7 days.</li> <li>☼ Advise client to return if symptoms persist</li> <li>☼ Sexual partner may be treated if there is recurrence</li> <li>☼ Advise client to use condom to prevent future infections</li> </ul>

### Partner Notification

People should tell their partners when they have an STI. The partner may have no symptom and may not be aware that he/she is infected. This person can re-infect the treated partner, and/or pass on the disease to other partners. Any infected person must encourage his/her partner to seek treatment at the earliest opportunity.

- ☼ Notification and treatment of female partners of men with urethritis is of the highest priority because it is one of the best ways of identifying women at high risk of having asymptomatic gonococcal and Chlamydia infections.
- ☼ In the absence of a confirmed diagnosis, the decision to notify partner(s) should take into account local cultural and epidemiological factors

## 2. Sexually Transmitted Infections with Ulcers

Disease	Signs and symptoms	Management
Chancroid	<p>Client complains of the following about 1-8 days after intercourse:</p> <ul style="list-style-type: none"> <li>☼ Single or multiple soft superficial, painful ulcers with ragged edges on the prepuce or shaft of penis in the male and vulva, labia or vagina in the female, or anus in male or female</li> <li>☼ Usually unilateral lymph node enlargement occurs and may progress to form an abscess</li> </ul>	<ul style="list-style-type: none"> <li>☼ Conduct a pelvic examination including speculum examination to exclude other STIs and to take specimen for culture and sensitivity if your centre has facilities</li> <li>☼ Counsel for HIV screening and send appropriate blood sample</li> <li>☼ Give the following treatment: <ul style="list-style-type: none"> <li>- Ciprofloxacin 500 mg orally bd x 3 days</li> </ul> </li> <li>or</li> <li>- Erythromycin Base 500 mg orally qid for 7 days</li> <li>Or</li> <li>- Azithromycin 1gm orally stat</li> <li>Or</li> <li>- Ceftriazone 250 mg IM stat</li> <li>☼ Inguinal lymph node enlargement/abscess should be aspirated</li> <li>☼ Advice contact to be treated</li> <li>☼ Follow-up visit is necessary to ensure that infection is clear</li> <li>☼ Advise on the use of condoms to prevent the spread of infection</li> </ul>
Syphilis	<p><b>Primary</b></p> <ul style="list-style-type: none"> <li>☼ Presence of a painless shallow ulcer with indurated (firm) base</li> <li>☼ The ulcer may heal by itself</li> <li>☼ There may be mild fever, headache and general ill health</li> </ul> <p><b>Secondary</b></p> <ul style="list-style-type: none"> <li>☼ Skin rash more on the chest, abdomen and the axilla and groin where they may enlarge to form condylomata lata</li> <li>☼ Ulcers of mucous membranes especially of genitals, mouth, pharynx and larynx</li> <li>☼ Enlargement of lymph nodes of the neck or axilla with mild fever</li> </ul> <p><b>Tertiary or latent</b></p> <ul style="list-style-type: none"> <li>☼ Usually there are no symptoms, but occurs 3–10 years</li> </ul>	<ul style="list-style-type: none"> <li>☼ Primary and secondary syphilis can be confirmed by dark field or fluorescent microscopy of specimen material from the ulcer on the genitalia, lymph node or other lesions</li> <li>☼ If facilities are available, serological tests for syphilis like VDRL, TPHA become useful 10 days after onset of lesions</li> <li>☼ Counsel for HIV screening and send appropriate blood sample</li> </ul> <p><b>Treatment</b></p> <ul style="list-style-type: none"> <li>☼ IM benzathine penicillin, 2.4 mega units single dose in each buttock</li> </ul> <p>Or</p> <ul style="list-style-type: none"> <li>☼ Aqueous procaine penicillin, 600,000–1,200,000 units daily x 10 days, by deep intramuscular injection</li> </ul> <p><i>For clients with penicillin allergy, give any of the following:</i></p>

Disease	Signs and symptoms	Management
	<p>after primary syphilis</p> <ul style="list-style-type: none"> <li>⊗ Neurosyphilis or tabes dorsalis or cardiovascular system involvement like aortic aneurysm may be present</li> </ul>	<ul style="list-style-type: none"> <li>⊗ Doxycycline (Vibramycin) tabs 100 mg bd x 15 days</li> </ul> <p>Or</p> <ul style="list-style-type: none"> <li>⊗ Tetracycline hydrochloride caps 500 mg qid x 15 days</li> </ul> <p>Or</p> <ul style="list-style-type: none"> <li>⊗ Erythromycin tabs 500 mg qid x 15 days</li> </ul> <p><i>For pregnant patients</i></p> <ul style="list-style-type: none"> <li>⊗ Treat with Erythromycin or Penicillin as above and treat their newborn babies with Penicillin</li> </ul> <p><i>For latent syphilis, use:</i></p> <ul style="list-style-type: none"> <li>⊗ Procaine Penicillin, 2.4 mega units daily with Probenecid 500 mg qid for 10 days, followed by IM Benzathine penicillin 2.4 mega units weekly x 3 weeks</li> <li>⊗ Serological test for cure should be performed at 3, 6, 12 and 24 months</li> <li>⊗ Client and partner(s) should abstain from sexual intercourse till they are cured or should use condoms</li> <li>⊗ Advise the use of condoms to prevent future STI infections</li> </ul> <p><i>If in doubt, refer to a medical officer or specialist centre</i></p>
Lymphogranuloma venereum	<p><i>Primary lesion</i></p> <ul style="list-style-type: none"> <li>⊗ Client may have single or sometimes multiple painless vesicles and/or ulcer, which may be unnoticed or overlooked by the client</li> </ul> <p><i>Latent lesions</i></p> <ul style="list-style-type: none"> <li>⊗ Within 4–6 months of onset there may be inguinal lymph node enlargement or abscess or ulcers</li> </ul>	<ul style="list-style-type: none"> <li>⊗ Examine the inguinal region (loin) for swellings (lymph nodes enlargement or abscess) and ulcers</li> <li>⊗ Counsel for HIV screening and send appropriate blood sample</li> </ul> <p><i>Give any of the following:</i></p> <ul style="list-style-type: none"> <li>⊗ Tetracycline caps 500 mg qid x 21 days</li> </ul> <p>or</p> <ul style="list-style-type: none"> <li>⊗ Doxycycline caps 100 mg bd x 21 days</li> </ul> <p>or</p> <ul style="list-style-type: none"> <li>⊗ Erythromycin, tabs 500mg q.i.d. x 21 day</li> <li>⊗ Trace and treat sexual contacts</li> <li>⊗ Advise clients to use condoms during period of treatment. Counsel for HIV screening and send appropriate blood sample</li> </ul>
Herpes	<ul style="list-style-type: none"> <li>⊗ Single or multiple vesicles on the penis in the male, or the vulva, vagina, and cervix in the female, or anal vesicles may rupture to form painful superficial ulcers, which may heal spontaneously</li> </ul>	<ul style="list-style-type: none"> <li>⊗ No definite medication is currently available for herpes infection</li> </ul> <p><i>For symptomatic treatment, the following are useful:</i></p>



Disease	Signs and symptoms	Management
	<ul style="list-style-type: none"> <li>⊗ Sometimes inguinal lymph node enlargement or general ill health may occur</li> <li>⊗ Recurrent infections are frequent</li> </ul>	<ul style="list-style-type: none"> <li>⊗ Keep lesions clean and have sitz bath three times daily</li> <li>⊗ Ampicillin or Ampiclox caps 500 mg qid x 5–7 days may prevent bacterial infection</li> <li>⊗ Acyclovir tabs 200 mg 5 times daily x 10 days may limit infection (do not use during pregnancy)</li> <li>⊗ Topical application of Acyclovir may be beneficial</li> <li>⊗ Advise client to limit number of sexual partners and encourage the use of condoms</li> <li>⊗ Counsel for HIV screening and send appropriate blood sample</li> </ul>
Genital warts (condylomata acuminata)	<ul style="list-style-type: none"> <li>⊗ Variable number of soft fleshy growth of different sizes usually found around the anus and perineum or vulva and penis</li> <li>⊗ May grow rapidly</li> </ul>	<ul style="list-style-type: none"> <li>⊗ Apply 10–20% podophyline and wash off after 1–4 hours</li> <li>⊗ If there is no appreciable change after four weeks, refer to a specialist centre for cryotherapy, electrocautery, or laser treatment</li> </ul>
Granuloma inguinale (donovanosis)	<ul style="list-style-type: none"> <li>⊗ Single or multiple soft superficial, painful ulcers with ragged edges on the prepuce or shaft of penis in male, or on vulva, labia or vaginal in the female appearing 1–8 days after sexual intercourse</li> <li>⊗ Usually unilateral inguinal lymph node enlargement occurs and may progress to abscess</li> </ul>	<ul style="list-style-type: none"> <li>⊗ Conduct pelvic examination including speculum examination to exclude other STIs and to take specimen for culture and sensitivity if your centre has facilities</li> </ul> <p><i>Give the following treatment:</i></p> <ul style="list-style-type: none"> <li>⊗ Septrin 960mg orally bd for 21 days</li> <li>or</li> <li>⊗ Erythromycin orally 500 mg qid for 21 days</li> <li>or</li> <li>⊗ Ciprofloxacin 750 mg bd for 3 weeks</li> <li>or</li> <li>⊗ Streptomycin IM 1 gm for 7 days</li> </ul> <ul style="list-style-type: none"> <li>⊗ Inguinal lymph node enlargement/ abscess should be aspirated</li> <li>⊗ Advise contacts to be seen and treated</li> <li>⊗ Follow-up visit is necessary to ensure infection is clear</li> <li>⊗ Advise the use of condoms to prevent the spread of infection</li> <li>⊗ Counsel for HIV screening</li> </ul>

## Equipment and Materials

The following equipment and materials are basic requirements for STI service units

- ✿ Writing table with chairs for the provider and client in a place where privacy is assured
- ✿ Examination couch, preferably with facilities for putting client in lithotomy position
  - Trolley with top shelf containing a covered tray with Sims and Cusco's specula, sponge-holding forceps, bottom shelf containing a covered tray with bowls and kidney dishes
- ✿ Examination light/angel poised lamp/spot lamp or torch
- ✿ Examination gloves (disposable examination gloves will suffice)
- ✿ Specimen bottles for blood (VDRL test) and urine bacteriology tests
- ✿ Sterile swab sticks
- ✿ Syringes and needles
- ✿ Microscope slides and cover slips
- ✿ Microscope for examination of wet preparations and for urine microscopy
- ✿ Forms for
  - all the tests listed above
  - drug prescriptions
  - contact tracking
- ✿ Information, education and communication (IEC) materials for counselling

## Procedure for Managing STI Patients

- ✿ Receive the client, introduce yourself, and make him/her feel at ease
- ✿ Ensure privacy and confidentiality
- ✿ Ask the client to describe his/her complaints
- ✿ Find out the client's knowledge about the:
  - cause of the condition he/she has
  - mode of spread of the condition
  - importance of treatment compliance
  - importance of treatment of sexual partners including husband or wife
- ✿ Examine the client and perform any necessary tests, e.g. urethral and cervical swabs
- ✿ Educate the client based on information given above
- ✿ Encourage the client to ask questions
- ✿ Counsel, provide treatment, or refer to appropriate centre where client can be treated
- ✿ Instruct the client to abstain from intercourse until three days after commencement of treatment. However, if client chooses to have intercourse, she should use a condom
- ✿ Remind client that condoms and spermicides will help prevent re-infection
- ✿ Give a follow-up appointment
- ✿ Give STI contact tracking forms if there are any, or invite contacts through the client
- ✿ Encourage personal hygiene

## Prevention of STIs

- ✿ Abstain from sex
- ✿ Avoid unprotected sex. Always use condom and use it properly

### Introduction

AIDS is an acronym for Acquired Immune Deficiency Syndrome (AIDS). It is a viral disease caused by the Human Immunodeficiency Virus, (HIV). When AIDS emerged two decades ago, few people could predict how the epidemic would evolve, and fewer still could describe with any certainty the best ways of combating it. Now, at the start of a new millennium, we have past the stage of conjecture. We know from experience that AIDS can devastate whole regions, knock out decades of nation development, widen the gulf between rich and poor nations and push already stigmatised groups closer to the margins of the society.

The UNAIDS 2008 report shows that there were an estimated 33 million people living with the virus all over the world. There has been a decline in the annual number of new infections from 5.4 million people in 1999 to 3.0 million in 2001 and now 2.7 million people in 2007. Overall, 2.0 million people died due to AIDS in 2007 compared with an estimated 1.7 million in 2001.

Sub Saharan Africa is the world's most affected region by the pandemic and is home to 67% of all people living with HIV. A decade ago, HIV/AIDS was regarded primarily as a serious health crisis. Today it is clear that AIDS is a development crisis and in some parts of the world it is rapidly becoming a security crisis too.

HIV/AIDS remains a leading developmental challenge in Nigeria, threatening not only the health of the people but their entire well-being. Nigeria witnessed an increase in the HIV sero-prevalence rate from 1.9% in 1991 to 5.8% in 2001, then declined to 5% in 2003 and to 4.4% in 2005. This decline, unfortunately, has been followed by a recent rise to 4.6% in 2008.

Globally, 45% of new infections are found in the 15-24 years age group. HIV infection in Nigeria cuts across both sexes and all age groups. However, youths between ages 20-29 yrs are more infected with sero-prevalence rate of 4.9% for 25-29 age group and 4.7% for 20-24 age group. The number of people living with HIV/AIDS in Nigeria is estimated at 2.95 million, with females constituting almost three-fifths (1.72 million; 58.3%)

### Why should youths be targeted for HIV interventions?

- ⊗ The HIV infections among youths were most likely acquired within the last few years and thus give a frightening indication of the rapidity of transmission currently occurring in these age groups
- ⊗ Young people particularly women are biologically and socially vulnerable to the epidemic

- ✿ Young people have limited access to youth friendly health services, counselling , or family planning
- ✿ If HIV prevention in the large young population fails, Nigeria will have to face the staggering cost of vast numbers of adults with AIDS
- ✿ Young people are a force for change and with support from adults and society at large; they can change the course of the epidemic
- ✿ Youth represent the nation's future and the development of Nigeria rests in this hand.

## What is AIDS?

AIDS is Acquired Immune Deficiency Syndrome. It is caused by the human immunodeficiency virus (HIV), which gradually and progressively destroys the body's white blood cells (T-lymphocytes). A HIV-infected person may appear healthy and without symptoms, but suddenly develop symptoms of AIDS such as acute progressive weight loss, diarrhoea (which is difficult to control), skin rashes, recurrent fever, and ill health. AIDS currently has no scientifically proven cure, but an HIV-infected person could live a good life if well managed

## Relationship between HIV infection and AIDS

HIV eventually causes AIDS when it infects one person's body. A special blood test can detect HIV infection. A person infected with HIV can look and feel completely healthy for many years while the virus is slowly destroying his or her immune system. During this period a person who is infected but still appears healthy can infect other people. One cannot tell by looking at a person whether he or she is infected with HIV. Once the immune system is destroyed, the person develops "full –blown AIDS". It is only a person who is infected with HIV that can develop AIDS.

## Transmission of HIV

### HIV is spread

- ✿ By sexual intercourse – vaginal, anal, or oral with an infected person
- ✿ By blood transfusion with infected blood (blood that was not screened)
- ✿ By sharing needles, razors and other sharp objects with an infected person; and
- ✿ From an infected mother to her unborn baby before, during or after birth.

Note: One cannot tell by looking at a person whether he or she is infected. Most transmission in Nigeria is through sexual intercourse with an infected partner who may appear normal.

## Myths on HIV transmission

### HIV is not spread by

- ✿ Hand shaking
- ✿ Talking, sharing meals
- ✿ Touching, hugging or casual contact
- ✿ Coughing and sneezing
- ✿ Dishes, cups and spoons
- ✿ Towels, linen
- ✿ Public toilets/public pools
- ✿ Phones, Furniture
- ✿ Mosquito and insect bite
- ✿ Donating blood

### AIDS Defining Illnesses/Related Symptoms

A client may be suspected to have AIDS if he/she presents with any or a combination of the following symptoms:

- ✿ Acute progressive weight loss, prolonged cough, or fever
- ✿ Prolonged diarrhoea, which may contain blood
- ✿ Skin rash with or without itching
- ✿ Generalized lymph node enlargement
- ✿ Recurrent infections in the mouth and throat
- ✿ Excessive tiredness and/or fever

It is important to note that many of these signs and symptoms are also signs and symptom of other illnesses. The only way to determine for sure if somebody has HIV/AIDS is through a blood test.

### Assessment of client

Take relevant history from the client to elicit the following:

- ✿ Infection with STIs, including genital ulcers
- ✿ Casual sex without use of condom
- ✿ Multiple sexual partners
- ✿ Blood transfusion
- ✿ Scarification and tattooing
- ✿ Substance abuse, especially intravenous drug use (IDU)
- ✿ Previous history of HIV test and/or result
- ✿ HIV infection or AIDS in consort

Conduct physical examination and note the following:

- ✿ General well-being
- ✿ Generalized rash
- ✿ Lymph node enlargement

During examination, wear gloves and discard all used syringes and needles safely by burning or burying, or by the system used at the facility.

## **HIV/AIDS Counselling**

Providing HIV/AIDS counselling requires special skills. However, if HIV/AIDS is suspected, its management starts with counselling.

### **Types of Counselling**

#### **Pre-test counselling**

- ✿ Establish a good rapport with the client
- ✿ Assure the client that testing for HIV is voluntary
- ✿ Assess his/her HIV/AIDS knowledge
  - Allow the client to express understating of HIV, then clarify misconceptions and fill knowledge gaps
  - Ask about the client's feelings about testing and previous HIV testing experiences
  - Inquire if client knows anyone with HIV/AIDS, e.g. sexual partner, family member
- ✿ Assess risks:
  - Sexual behaviour, without making assumptions about sexual orientation; not all clients are heterosexual
  - Number of sexual partners and partner known risks
  - Frequency of substance use in the context of sexual behaviour
  - Consistency of condom use
  - Level of assertiveness
  - Desire to get pregnant (to prevent mother to child transmission)
  - Ability to discuss safer sex practices with sexual partner
  - History of sexual abuse or rape
- ✿ Assess substance use and other risks
  - Level of drug and alcohol use including reasons and context in which use occurs
  - Risk of impaired judgment that may lead to unsafe sex
  - Potential need for drug treatment
  - Violence in home and community
  - Substance use in home and community
- ✿ Prepare the client for HIV testing (and referral)
  - Inform the client about anonymous and confidential testing

- Provide education about partner notification programs and other options for disclosure to partners
  - Assess understanding of meaning of a positive and negative test result
  - Assess understanding of benefits of early intervention
  - Discuss strategies for coping (how to relieve stress and anxiety during the testing process)
- ⊗ Conduct test or refer for testing after obtaining informed consent
  - ⊗ Discuss sexual activities that do not involve exchange of body fluids
  - ⊗ Demonstrate proper male and female condom use on anatomical model and provide opportunity for practice
  - ⊗ Discuss effective ways to communicate role/responsibilities with sexual partner(s)
  - ⊗ If the client is on drugs, discuss harm reduction strategies
  - ⊗ Develop a personalized risk reduction plan
  - ⊗ Discuss postponing sex for clients who are not sexually active
  - ⊗ Determine referral needs (e.g. medical, vocational, rehabilitation from substance abuse, social worker, etc)
  - ⊗ Arrange follow-up appointment and ensure confidentiality in contacting client if needed

## **Post-test Counselling**

### **Receiving HIV test result**

- ⊗ Ensure that client is ready for results
- ⊗ Allow client to share his/her initial fears and reaction
- ⊗ Provide results
- ⊗ Check client's understanding of results

### **If client's HIV test is negative**

- ⊗ Inform him/her that antibodies are detected from three weeks to six months after infection with HIV
- ⊗ Encourage persons with risky behaviour who test negative to repeat the test after three months
- ⊗ Remind the client that testing negative does not mean one cannot be infected with HIV in the future
- ⊗ Encourage him/her to strive to remain negative because engaging in risky behaviour can change the HIV status
- ⊗ Counsel the client on how to prevent HIV infection transmission:
  - Abstain from sex
  - Be faithful to one partner
  - Use condom each time he/she has sex
  - Desist from sharing sharp instruments, injection, needles, etc
- ⊗ Encourage the client to ask questions and express concerns
- ⊗ Encourage follow-up counselling

If the client's HIV test is positive

- ✿ Counsel the client that:
  - HIV infected persons can live a reasonably normal life
  - HIV infected persons must seek prompt medical attention when sick
  - HIV infected persons must practice safe sex only
  - pregnancy in the HIV-infected female can affect the unborn baby
  - being aware of the fact that one is HIV-positive gives one the opportunity to prevent others from being infected
- ✿ Discuss therapeutic options and build trust; the goal is active participation in all aspects of treatment
- ✿ Discuss available treatment options
- ✿ Discuss the stages of HIV infection
- ✿ Assess the mental state of the client; mental health and cognitive abilities
- ✿ Discuss with the client available anti-retroviral regimen and where he/she can get it; acknowledge and address side effects
- ✿ Assess physical ability to take medications
- ✿ Assess readiness to begin medications
- ✿ Educate client about HIV infection: transmission, disease course and benefits of medications
- ✿ Discuss follow-up visits
  - Arrange clinic visits and obtain contact address
  - Facilitate interactions with other clients taking medications
- ✿ Provide information on nutrition, because malnutrition is common in HIV infection and reduced food intake, which is associated with anorexia, contributes to poor nutrition. Good food and dietary supplements (vitamin and mineral supplements) improve the quality of life, mental and physical performance, delay disease progression and improve immunity. Use hygienically safe food and water.
- ✿ Give condom if requested
- ✿ Explore and acknowledge feelings, fear and identify immediate concerns

## Care and Support of People Living with AIDS (PLWHA)

Presently, there is no vaccine to prevent AIDS and no cure for AIDS. However, the UNAIDS has recommendations of care and support for people living with AIDS. These include:

- ✿ Voluntary HIV counselling and testing
- ✿ Psychosocial support for HIV-positive people and their families
- ✿ Diagnosis and treatment of opportunistic infections
- ✿ Official recognition and facilitation of community activities that reduce the impact of HIV infection
- ✿ Anti retroviral therapy



## Prevention of HIV/AIDS

Things to do to help prevent the spread of HIV:

- ⊗ Abstinence
- ⊗ Avoidance of unprotected sex-always use a condom and use it properly
- ⊗ Avoidance of intravenous hard drug use
- ⊗ Avoidance of shared needles in intravenous drug use
- ⊗ Avoidance of used razor, needles and other sharp objects
- ⊗ Insistence that health workers use fresh needles and syringes for injection
- ⊗ Insistence on screened blood for transfusion

## Prevention of Mother-to-Child Transmission of HIV

Mothers who are HIV infected can transmit the virus to their unborn or newborn babies during pregnancy, delivery, or breastfeeding. Only 30–40% of babies born to HIV-infected mothers become infected, but mother-to-child transmission (MTCT) can be prevented.

## Prevention (Counselling Tips) during Pregnancy

- ⊗ Educate the client on risks involved in transmitting HIV to her baby, including increased risk of spontaneous abortion, stillbirth, prenatal/infant death, pre-term delivery and low birth weight
- ⊗ Discourage cigarette smoking and hard drug use because these increase foetal exposure to maternal blood through placental disruption, hence increasing the risks of transmission
- ⊗ Encourage safer sex practices through abstinence or condom use
- ⊗ Educate client on adequate nutrition and encourage use of haematinics and multivitamin supplements
- ⊗ Encourage the client to take intermittent malaria prophylactic treatment
- ⊗ Encourage client to attend a well-equipped health facility and to report to the clinic in case of any complaints
- ⊗ Inform client on delivery options
- ⊗ Encourage client to join local support groups within her community
- ⊗ Advise client on feeding options for the newborn:
  - Use of infant or locally prepared formulae
  - Use of wet nursing (must be an HIV negative woman)
  - Pasteurization of breast milk, i.e. heating of expressed maternal breast milk at 62°C for 30 minutes or bring milk to boil and leave to cool
  - Exclusive breastfeeding for short duration not exceeding 3–6 months
- ⊗ Advise client to do yearly cervical smear
- ⊗ If the client decides to breastfeed, she should avoid breastfeeding during maternal and infant illnesses, e.g. when having cracked nipple, mastitis, mouth ulcer, or thrush

### Precautions during delivery

- ⊗ Follow proper infection prevention practices
- ⊗ Avoid invasive diagnostic procedures, e.g. amniocentesis
- ⊗ Avoid artificial rupture of membranes
- ⊗ Episiotomy and instrumental deliveries should be carried out only when indicated

### Drug Therapy

In accordance with the Nigerian national Prevention of Mother-to-Child Transmission (PMTCT) guidelines, ARV recommendations are based on the clinical settings.

**Clinical setting 1:** Pregnant woman who is eligible for highly active antiretroviral therapy (HAART) but not currently receiving ARV prophylaxis

- ⊗ Recommended regimen: ZDV + 3TC + NVP beginning in second trimester if CD4 count is less than 250 for either treatment or prophylaxis
- ⊗ If CD4 count is more than 250:
  - substitute PI for NVP if available, or
  - substitute EFV for NVP (2nd and 3rd trimesters only)
  - monitor carefully for hepatotoxicity

**Clinical setting 2:** Pregnant woman not eligible for HAART for her own disease

- ⊗ Preferred regimen (in facilities where HAART is available): initiate HAART per clinical setting 1 after first trimester and continue during labor, but discontinue NVP after delivery
- ⊗ Alternative regimen (in facilities where HAART is not available): initiate ZDV at 28 weeks gestation or ZDV + 3TC from 34 weeks and continue during labor plus single-dose NVP at onset of labour
- ⊗ Continue ZDV + 3TC after delivery for seven days

**Clinical setting 3:** Pregnant woman receiving HAART during current pregnancy

- ⊗ Continue with current HAART regimen
- ⊗ ZDV should be a component of the regimen whenever possible
- ⊗ EFV is contraindicated in the first trimester and should be replaced with NVP

**Clinical setting 4:** HIV-infected woman with active TB

- ⊗ Treat the TB first if possible
- ⊗ Delay HAART until the second trimester if possible
- ⊗ Rifampin reduces NVP levels (change Rifampin to low dose Rifabutin)
- ⊗ Replace NVP with EFV *only if* prophylaxis is delayed until the second trimester
- ⊗ Avoid ZDV if haemoglobin is less than 8 g/dl

For ALL women stopping NVP, EFV, or receiving a single dose of NVP intrapartum

- ☼ Give or continue ZDV + 3TC for seven days postpartum to reduce the risk of NVP resistance

ARV prophylaxis for the newborn

### **All clinical settings**

- ☼ Single dose NVP syrup (2 mg/kg) as soon as possible after birth, preferably within 72 hours
- ☼ Followed by ZDV syrup (4 mg/kg twice daily) for six weeks, then STOP
- ☼ Avoid ZDV if haemoglobin is less than 9 g/dL.

## **Summary**

STIs have fatal consequences but early diagnosis and treatment can remove or reduce this. Moreover self-medication can create complications.

AIDS currently has no scientifically proven cure but an HIV infected person can live a good life if properly managed. Education and prevention are still the hallmark of care although anti-retroviral drugs are now available to manage the condition. Individuals are encouraged to practice abstinence, if not yet sexually active and people are encouraged to support and care for PLWAS.

## **Evaluation**

- ☼ What are the examples of sexually transmitted infections?
- ☼ What are the signs and symptom of STIs?
- ☼ How can STIs be prevented?
- ☼ What are the signs and symptoms of STIs?
- ☼ What is AIDS?
- ☼ What causes AIDS?
- ☼ What are the signs and symptoms of AIDS?
- ☼ How is HIV spread?

### Time

60 Minutes

### Learners' Objectives

By the end of the session, the participants will be able to:

- ✿ Define screening methods for prevention of cervical cancer
- ✿ State the indications for screening
- ✿ Describe the procedures for obtaining Pap smear
- ✿ Describe the procedures involved in the visual inspection methods
- ✿ Discuss the various interpretations of results
- ✿ Demonstrate how to take Pap smear
- ✿ Demonstrate how to conduct visual inspection of the cervix.

### Session Overview

- ✿ Definition of the screening methods for cervical cancer prevention
- ✿ Indications for screening
- ✿ Procedure for obtaining Pap smear
- ✿ Procedure for visual inspection of the cervix
- ✿ Interpretation of result of Pap smear
- ✿ Interpretation of result of visual inspection methods

### Materials

- ✿ Flip chart / markers
- ✿ Multimedia projector
- ✿ Slide, sample of Pap smear fixative
- ✿ Wooden spatula
- ✿ Pelvic model/speculum/gloves

### Methods

- ✿ Brainstorming
- ✿ Discussion
- ✿ Lecture
- ✿ Demonstration / Return demonstration

## Content

### Introduction

Screening methods for cervical cancer prevention are methods that enable providers to detect abnormal changes in the cervix before such changes develop into cancer. These procedures also enable early diagnosis of cervical cancer. The most popular is the Papanicolaou (Pap) smear which consists of a sampling of the different cell types of the cervix. The sampled cells are preserved and sent to a laboratory for staining and interpretation. The process of sampling the cells and spreading on the slide must be done carefully, or the slide cannot be interpreted. Other methods involve direct inspection of the cervix with or without the aid of certain reagents such as dilute acetic acid (VIA), or Lugol's Iodine. These can be useful where the traditional Pap smear is not feasible.

### Definition

It is the process of detecting pre-cancerous changes of cervix.

### Indications

- ✿ Routine for all family planning client (every 3 to 5 years)
- ✿ Client presents with abnormal vaginal discharge

Note: Whenever the cervix does not appear normal (e.g. in the presence of inflammation or erosion), REFER to a gynaecologist.

### Procedure for Performing a Pap smear:

- ✿ Optimum time for collecting a pap smear is five (5) days after the end of the menstrual period.
- ✿ Client should not have intercourse, douche or use vaginal medication 24-48 hours before the procedure
- ✿ Do not collect a Pap smear during the client's menstruation since red blood cells make interpretation of the test difficult. However, if client is not in menstruation but has bleeding, collect a specimen and make very thin smear.

### Materials Required

- ✿ Speculum (Cusco's)
- ✿ Light
- ✿ Wooden tongue blade, Ayre spatula or cotton – tipper swab
- ✿ Cotton wool
- ✿ Slide (best to use type with cloudy/frosted end)

- ✿ Fixative jar (containing 95% pure alcohol) or fixative spray
- ✿ Hard pencil
- ✿ Sticky label (if slide used without cloudy/frosted end
- ✿ Cytology form
- ✿ Gloves

## The Procedure

- ✿ Label slide
- ✿ Explain to the client the test procedure
- ✿ Do a speculum examination (as per procedure, client should have an empty bladder and while in lithotomy position should have appropriate sized speculum introduced to expose the cervix
- ✿ Gently remove with cotton wool any secretions that obscure the cervix or may interfere with the test (e.g. mucus, blood, discharge)
- ✿ Collect specimen from cervix using a wooden spatula (Ayre's spatula) and obtain cells from the squamo – columnar junction of the spatula through a full 360 degrees of the cervical os
- ✿ Spread (do not scrub) the material on the labelled slide – better to be too thin than too thick
- ✿ Fix the material immediately before it is dry, using the Pap smear fixative (95% alcohol)

Note: the cytologist does the interpretation of results

## Interpretation of Results:

- ✿ Normal, ectocervical cells and endocervical cells no inflammation, this shows no problem and thus nothing is done.
- ✿ Inflammation, acute/chronic, non-specific, then the provider should refer client to the Gynaecologist / physician
- ✿ Inflammation, acute/chronic, specific (e.g. HPV, Herpes, Monilia, schistosoma) refer to the Physician or treat the vaginitis and repeat the pap smear 4 weeks after completing therapy
- ✿ Any of the following five, then refer to the Gynaecologist
  - CIN I - Mild dyskaryosis (abnormal appearance of cell nucleus)
  - CIN II - Moderate dyskaryosis
  - CIN III - Severe dyskaryosis
  - Micro invasive carcinoma in "situ"
  - Invasive carcinoma

## Visual Inspection Tests

### Types of Visual Inspection tests

- ✿ Direct visual inspection (DVI)
- ✿ Visual inspection with acetic acid (VIA) can be done with the naked eye

- ⊗ Visual inspection with Lugol's Iodine (VILI) also known as Schiller's test.

### **Procedure for performing DVI, VIA and VILI**

- ⊗ Vaginal speculum examination is performed
- ⊗ Provider applies dilute (3-5%) acetic acid or vinegar OR Lugol's Iodine to the cervix as appropriate.
- ⊗ Views the cervix with the naked eye to identify colour changes on the cervix.
- ⊗ Determines whether the test is positive or negative for precancerous lesions or cancer. .

### **Materials for Visual Inspection Tests**

- ⊗ Private examination area
- ⊗ Examination table
- ⊗ Trained health professionals
- ⊗ Light source
- ⊗ Vaginal speculums
- ⊗ Gloves
- ⊗ Cotton swabs
- ⊗ Dilute Acetic Acid (3-5%) or Lugol's Iodine
- ⊗ Small bowl

### **Interpretation of Results of VIA**

- ⊗ Test Negative- No acetowhite lesions or faint acetowhite lesions
- ⊗ Test positive- Sharp distinct well defined dense acetowhite areas
- ⊗ Suspicious for cancer- Clearly visible ulcer cauliflower-like growth or ulcer oozing or bleeding to touch.
- ⊗ Abnormal tissue temporarily appears white when exposed to vinegar.
- ⊗ Abnormal tissue temporarily appears light brown when exposed to Lugol's Iodine

### **Management**

- ⊗ Test Negative- No action required
- ⊗ Test positive/ suspicious for cancer/ other cervical abnormalities - Refer

### **Summary**

Tests for preventive and early diagnosis of reproductive health diseases is an important component of the FP program, when available, laboratory tests should be used to confirm tentative diagnosis based on a carefully taken history and physical examination.

## Evaluation

- ✿ State the indications for Pap smear
- ✿ Define cervical cancer prevention screening methods
- ✿ State the procedure for obtaining Pap smear.
- ✿ State the procedure for Visual inspection tests.



### Time

40 Minutes

### Learners' Objectives

By the end of the session, participants will be able to:

- ✿ Discuss the importance of male involvement in RH
- ✿ List benefits
- ✿ List the range of services for men
- ✿ Discuss treatment / referrals
- ✿ Discuss barriers to male involvement in RH

### Session Overview

- ✿ Introduction to men's services
- ✿ Benefits of male involvement
- ✿ Range of men's RH services
- ✿ History taking, screening and referrals
- ✿ Barriers to male involvement in RH

### Methods

- ✿ Brainstorming
- ✿ Lecture
- ✿ Discussion

### Materials

- ✿ Flip chart stand / paper
- ✿ Markers
- ✿ Masking tape
- ✿ IEC Materials
- ✿ Handouts

## Content

### Men's Role in Reproductive Health Services

This chapter provides an overview of men's reproductive health services and explores the benefits and drawbacks of offering men's services.

#### Importance of Involving Men in Reproductive Health

In many parts of the world, the reproductive health needs of men have not been adequately met. Reproductive health and family planning services, where they exist at all, have usually focused on the needs of the female partner. The reasons for this are complex, but those providing family planning services around the world now believe that this is a missed opportunity to improve the reproductive health of both men and women.

#### Why Involve Men?

- ❁ Women have traditionally been the focus of family planning programs. Women have often borne all the responsibility for their reproductive health care, whether for the purpose of controlling fertility, protecting against sexually transmitted infections (STIs), or caring for a pregnancy. Today, many factors suggest that these issues are better addressed by women and men.
- ❁ When men are involved in reproductive health decisions and concerned about equity, both men and women are more likely to communicate with each other, make joint decisions about contraceptive use, discuss how many children they would like to have, and be actively involved in child rearing and domestic chores.
- ❁ Women have suffered as a result of men's absence from reproductive health care. For example, some women have needed to be treated repeatedly for the same STI because their partners do not have access to or will not seek care.
- ❁ Men often play a critical role in women's reproductive health. Frequently, they decide if and when a couple uses contraception (either to protect against disease or pregnancy), how and when to make resources available to a female partner to help her get care, and whether and when a female partner seeks prenatal care. Men have also been shown to play a key role in deciding whether and when a pregnant woman seeks emergency obstetrical care and by what means of transport she arrives at the health care facility – the factors that have the most direct impact on outcomes for the mother and baby.

## Benefits of Men Involvement in Reproductive Health

Providing men's reproductive health care services may result in the following important benefits:

- ⊗ Greater access to high-quality reproductive health services by women and men
- ⊗ Higher rates of diagnosis and treatment for STIs, which, in turn, reduce the number of re-infections
- ⊗ Fewer new cases of HIV infection and other STIs
- ⊗ Early detection and successful treatment for prostate and testicular cancer
- ⊗ Fewer adolescent pregnancies
- ⊗ Better understanding of infertility problems
- ⊗ Greater male involvement with children and contributions to parenting
- ⊗ Better understanding of maternity issues, maternity care, and ways to recognise an obstetrical emergency
- ⊗ Better understanding of domestic violence and ways to enhance men's ability to communicate in non-violent ways, including legal protection for victims.
- ⊗ Better understanding of gender roles, traditional inequities between men and women, and how changing gender roles might benefit everyone
- ⊗ Better understanding of sexuality and the different ways in which women and men experience sexual pleasure
- ⊗ More intimate and sexually satisfying relationships between sex partners
- ⊗ Increased communication between partners regarding reproductive and sexual health concerns
- ⊗ Improved health overall for women, men and children.

## Why this is Important Now?

Men's roles in sexual and reproductive health and gender equity have always been important, but these issues are receiving more attention now. This is because:

- ⊗ The HIV infection/AIDS pandemic has dramatically put women whose male partners are infected at risk for contracting the infection. As a result, a greater need exists for men to take steps towards reducing their partners' risk for HIV infection, which may include shifting the balance of power between male and female partners.
- ⊗ Women have become more vocal in their desire for men to have access to reproductive health services, and men themselves have requested these services.
- ⊗ The 183 countries that participated in the International Conference on Population and Development (ICPD) in Cairo, Egypt, 1994 and the 189 countries that participated in the Fourth World Conference on Women in Beijing, Republic of China, in 1995 created global policies calling for these issues to be addressed. As a result, all of the countries that signed the Platforms for Action at both of these global conferences are mandated to pursue these issues.

## The Range of Men's Reproductive Health Services

One of the first steps in developing (or considering developing) a men's reproductive health program is understanding the entire range of services that might be offered and then deciding which of these services your health care facility can provide. Every facility has resource constraints and must, therefore, decide which services are possible and are needed to serve its particular community.

The men's reproductive health model is a comprehensive list of services that could possibly be offered in a men's reproductive health program. Health experts in Africa, Asia, Latin America, the Middle-East and North America developed this model to help facilities consider which services previously existed in the family planning and reproductive health community.

The men's reproductive health model divides men's reproductive health services into three categories: (1) screening, (2) diagnosis and treatment, and (3) information, education, and communication (IEC). The model is specific to men's reproductive health services and includes limited information about general health screening or treatment, which may also be needed in a local community. However, men's reproductive health services may be incorporated into existing health services or may serve as a way to identify men's other health needs and refer men for other health services.

While men's reproductive health program may provide services for a variety of health problems, the common reproductive health problems in men are

- ☼ Prostate cancer
- ☼ Testicular cancer
- ☼ Sexual dysfunction, including erectile dysfunction (impotence)
- ☼ Infertility
- ☼ STIs

### **Barriers to Male Involvement in RH**

- ☼ Ignorance about the rights of the wife.
- ☼ Cultural dominance of the male in African tradition
- ☼ Male perceived notion of being too busy in economic activities at the detriment of involvement in RH
- ☼ Poor program planning and implementation.

## History Taking/Screening

Screen	The Service Provider ask about or Check	If Necessary, the Service Provider Delivers Services or Refers the Clients to Another Facility for
Sexual and Reproductive History	<ul style="list-style-type: none"> <li>⊗ Sexual experience and behaviour, including the sex of the client's partner(s)</li> <li>⊗ Any incidence of sexual abuse or domestic violence</li> <li>⊗ Contraceptive use (especially condoms)</li> <li>⊗ Desires/concerns of fatherhood</li> </ul>	<ul style="list-style-type: none"> <li>⊗ Services for survivors and perpetrators of sexual abuse and domestic violence</li> <li>⊗ Counselling on paternal rights and responsibility, fatherhood support groups, parenting classes</li> </ul>
Age-appropriate Routine Physical Examination (as required for sports, jobs, etc)	<ul style="list-style-type: none"> <li>⊗ Blood pressure, lipid profile, heart/lungs, breast for lumps</li> <li>⊗ Urine sample and questions about urinary difficulties or concerns (may include dipstick urinalysis and check for nitrites)</li> <li>⊗ Nutrition/diet habits</li> <li>⊗ Development of what?</li> </ul>	<ul style="list-style-type: none"> <li>⊗ Dental care</li> <li>⊗ Vaccinations</li> <li>⊗ Dietary education</li> <li>⊗ Baldness (if problematic for the client)</li> <li>⊗ Job training, educational programs, employment/counselling services</li> </ul>
Cancer Evaluation	<ul style="list-style-type: none"> <li>⊗ Family history of prostate, testicular, colon, skin cancer</li> <li>⊗ Whether the client has ever had a prostate exam, testicular exam, colonoscopy or skin cancer screening</li> </ul>	<ul style="list-style-type: none"> <li>⊗ Follow-up testing and treatment for cancer, as needed</li> </ul>
Substance Abuse and Mental Health Needs	<ul style="list-style-type: none"> <li>⊗ Use of such substances as alcohol, tobacco, drugs, steroids</li> <li>⊗ Depression</li> <li>⊗ Difficulty managing anger</li> <li>⊗ Difficulty managing anxiety</li> </ul>	<ul style="list-style-type: none"> <li>⊗ Substance-abuse treatment</li> <li>⊗ Mental health care/stress management</li> <li>⊗ Counselling on violence prevention</li> <li>⊗ Services for runaways/homeless persons.</li> </ul>

Screen	The Service Provider Deliver Services or Refers the Client to another Facility for
Sexual dysfunction and other disorders of the male reproductive system	<ul style="list-style-type: none"> <li>⊗ Erectile dysfunction (impotence)</li> <li>⊗ Premature ejaculation</li> <li>⊗ Acne and skin lesions of the genital tract (including colposcopy for warts)</li> <li>⊗ Disorders of the reproductive system</li> <li>⊗ Hernia</li> <li>⊗ Varicoceles</li> <li>⊗ Urological disease (e.g. benign prostate hyperplasia)</li> <li>⊗ Counselling</li> </ul>
Sexually transmitted infections (STIs) , including HIV infection	<ul style="list-style-type: none"> <li>⊗ Blood test for HIV infection and other STIs</li> <li>⊗ Urethral swabs (to test for chlamydia and gonorrhoea)</li> <li>⊗ Premarital blood test</li> <li>⊗ Treatment of STIs, including gonorrhoea, syphilis, chlamydia, HPV, genital warts, and HIV infection and AIDS</li> </ul>
Fertility Evaluation	<ul style="list-style-type: none"> <li>⊗ History, examination, and semen analysis</li> <li>⊗ Blood test for paternity</li> <li>⊗ Semen analysis</li> <li>⊗ Infertility services</li> <li>⊗ Sperm bank</li> </ul>
Vasectomy	<ul style="list-style-type: none"> <li>⊗ Prevasectomy counselling</li> <li>⊗ Vasectomy</li> <li>⊗ Postvasectomy semen analysis</li> <li>⊗ Vasectomy reversal</li> </ul>

As discussed at the beginning of this chapter, many advantages and benefits result from providing men's reproductive health services. However, many potential challenges to providing successful services also exist. Often, members of particular groups may perceive the advantages of and challenges to providing men's reproductive health services differently from other groups. These groups may include potential male clients, female clients, facility staff, and members of the community, including religious, civic and youth groups, local leaders, business people, local health care providers, and traditional healers.

## General Challenges or Concerns

On the whole, potential challenges to or concerns about providing men's reproductive health services may include:

- ⊗ Staff resistance or ambivalence toward men to providing men's reproductive health services
- ⊗ No clear definition of men's reproductive health services
- ⊗ No clear sense of men's need and / or desire for reproductive health services
- ⊗ Lack of funding
- ⊗ Lack of staff dedicated to the men's reproductive health program
- ⊗ Lack of support for the men's reproductive health program by facility administrators or health officials
- ⊗ Lack of information, education, and communication (IEC) materials focused on men
- ⊗ Lack of marketing of available men's reproductive health services.

## Summary

The need for provision of RH services targeted at men cannot be underestimated if RH services are to be utilized by more men and women of reproductive age. There are several advantages which providing men's reproductive health services can bring to family planning services. However, several general challenges and concern need to be confronted by program designers and providers.

## Evaluation

- ⊗ List the range of services available for men's RH program
- ⊗ Describe the advantages and challenges to providing men's reproductive health services
- ⊗ List the barriers to male participation in RH

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