Family Planning Handbook for Medical Students and Physicians

পরিবার পরিকল্পনা অধিদপ্তর
Directorate General of Family Planning
Ministry of Health and Family Welfare

Family Planning Handbook for Medical Students and Physicians

Clinical Contraception Services Delivery Program (CCSDP)
Directorate General of Family Planning
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Family Planning Handbook for Medical Students and Physicians

(Publication Developed Based on the National Family Planning Manual in Bangla and the WHO/USAID FP Handbook)

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Compiled & Edited by
Dr. Abu Jamil Faisel, SRHR Specialist & Public Health Expert, Advisor-MOHFW

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Reviewed by
Panel of Reviewers consisting of experts from Medical Colleges, DGFP, DGHS, OGSB, UN, I/NGOs

Development & Editing Assistance by
Mohd. Shifat Hasan
Md. Minhazul Abedin
Mollah Mahmud Ahmed

Graphics & Illustration
Abdul Malak

Printed by
D'CON
59, Bir Uttam CR Dutta Road
Hatirpool, Dhaka-1205
+8801977664235
developmentconsultants.bd@gmail.com

List of Contributors

Members of Technical Working Group

- **Dr. Nurun Nahar Begum**
  Line Director, CCSDP, DGFP
- **Dr. Md. Moinuddin Ahmed**
  Ex Line Director, CCSDP, DGFP
- **Professor Dr. Md. Nazmul Islam**
  Line Director, DGME, DGHS
- **Professor Dr. Md. Mahfuzar Rahman**
  Department of Community Medicine, Anwer Khan Modern Medical College, Dhaka
- **Professor Dr. Fatema Ashraf**
  Head of the Department, Obs & Gyn, Shaheed Suhrawardy Medical College and Hospital, Dhaka
- **Professor Dr. Md. Humayun Kabir Talukder**
  Center for Medical Education (CME), Dhaka
- **Dr. Md. Mahmudur Rahman**
  Deputy Director (CS), CCSDP, DGFP-**Convenor**
- **Dr. Md. Rafiqul Islam Talukder**
  Assistant Director (QA). CCSDP, DGFP
- **Dr. Mohammad Azad Rahman**
  Technical Officer (FP & MNH), United Nations Population Fund (UNFPA), Bangladesh
- **Dr. Mahbuba Khan**
  National Professional Officer-Making Pregnancy Safer Program, World Health Organization, Dhaka
- **Dr. S M Nizamul Haque**
  National Consultant, CCSDP, DGFP-**Member Secretary**

Panel of Reviewers

- **Professor Ferdousi Begum**
  President, Elect, OGSB
- **Dr. Reena Yasmin**
  Director, Health Systems Strengthening, MSB
- **Dr. Abu Sayed Mohammad Hasan**
  Programme Specialist-SRH, United Nations Population Fund (UNFPA), Bangladesh
- **Dr. Helena Jabeen**
  Senior Consultant, MFSTC, DGFP
- **Dr. Gazi Md. Rezaul Karim**
  Project Team Leader, Jhpiego, Dhaka
- **Dr. Fatema Shabnam**
  Adolescent and Youth Specialist, Pathfinder International, Dhaka

Consultants

- **Dr. Abu Jamil Faisel,** SRHR Specialist & Public Health Expert, Advisor-MOHFW
- **Dr. Tamanna Sultana,** Freelance Consultant

Acronyms and Abbreviations

AIDS	Acquired Immunodeficiency Syndrome
BBS	Bangladesh Bureau of Statistics
BBT	Basal Body Temperature
BDHS	Bangladesh Demographic and Health Survey
BMD	Bone Mineral Density
BTL	Bilateral Tubal Ligation
CCSDP	Clinical Contraceptives Service Delivery Program
CHCPs	Community Health Care Providers
CME	Center for Medical Education
CIN	Cervical Intraepithelial Neoplasia
COCs	Combined Oral Contraceptives
CPR	Contraceptive Prevalence Rate
CSBA	Community Skilled Birth Attendants
CYP	Couple-Years of Protection
DDO	Drawing and Disbursing Officer
DG	Director General
DGFP	Directorate General of Family Planning
DGHS	Directorate General of Health Services
DGME	Directorate General of Medical Education
DMPA	Depot Medroxyprogesterone Acetate
ECP	Emergency Contraceptive Pill
FAM	Fertility Awareness Methods
FPCS-QIT	Family Planning Clinical Supervision – Quality Improvement Team
FEFO	First expired, First out
FP	Family Planning
FPI	Family Planning Inspector
FSH	Follicle-timulating Hormone
FWAs	Family Welfare Assistants
FWV	Family Welfare Visitors
GA	General Anesthesia
GOB	Government of Bangladesh
GnRH	Gonadropin Releasing Hormone
HA	Health Assistants
HI	Health Inspector
HIV	Human Immunodeficiency Virus
HNPSP	Health, Nutrition & Population Sector Program
HNPSDP	Health, Nutrition, Population Sector Development Program
HPV	Human Papilloma Virus
HPSP	Health & Population Sector Program
ICPD	International Conference on Population & Development
IPC	Inter-personal Communication
IUCD	Intrauterine Contraceptive Device

Acronyms and Abbreviations

IUD	Intrauterine Device
LAM	Lactational Amenorrhea Method
LAPM	Long-acting Permanent Method
LARC	Long-acting Reversible Contraceptive
LH	Luteinizing Hormone
LIC	Low Income Country
LNG-IUD	Levonorgestrel Intrauterine Device
MEC	Medical Eligibility Criteria
MCH	Maternal and Child Heath
MCH-FP	Maternal and Child Health-Family Planning
MCQ	Multiple Choice Question
MCWCs	Maternal and Child Health Welfare Center
MFSTC	Mohammpur Fertility Services and Training Center
MIC	Middle Income Country
MOHFW	Ministry of Health and Family Welfare
MPA	Medroxyprogesterone Acetate
MR	Menstrual Regulation
MRM	Menstrual Regulation with Medicine
MSB	Marie Stopes Bangladesh
NET-EN	Norethisterone Enanthate
NSV	No Scalpel Vasectomy
OCP	Oral Contraceptive Pill
OGSB	Obstetric and Gynecological Society of Bangladesh
PAC	Post Abortion Care
PID	Pelvic Inflammatory Disease
PM	Permanent Method
POPs	Postpartum- only Pills
PP	Postpartum
PPFP	Postpartum Family Planning
RD	Rural Dispensary
SDGs	Sustainable Development Goals
SMC	Social Marketing Company
SOP	Standard Operating Procedure
STI	Sexually Transmitted Infection
SVRS	Sample Vital Registration System
TFR	Total Fertility Rate
UHC	Upazilla Health Complex
UH & FWC	Union Health and Family Welfare Center
UNFPA	United Nations Population Fund
UPA	Ulipristal Acetate
USAID	United States Agency for International Development
VSC	Voluntary Surgical Contraception
WHO	World Health Organization

Content list

Acknowledgement

The need for developing the Bangladesh Family Planning Handbook stemmed from the fact that the medical students wanted a complete book on Family Planning. This book contains the history of Family Planning program in Bangladesh, all relevant information about the different contraceptives including the Traditional Methods and some description of Family Planning service provision. We do have the National Family Planning Manual, Bangladesh which serves as the Standard Operating Procedures (SOP). This Handbook has been developed in such a way that towards the end there is a chapter as Guide for the Teachers which would help the Teachers to use this handbook in teaching the undergraduate medical students.

I offer my heartfelt thanks to my colleagues at CCSDP Unit, of the Directorate General of Family Planning, senior professionals of the Center for Medical Education (CME) under the Directorate General of Medical Education, Professors from the different Departments of Medical Colleges, some reviewers from international NGOs, and Consultants. My special thanks go to the UNFPA, Bangladesh Country Office for their financial support, Consultant who drafted the content of the Handbook and also to the Members of the Technical Working Group as well as the Panel of Reviewers.

I would end this note with a hope that this Handbook will be extensively used by doctors and other service providers and teachers in using for teaching the undergraduate medical students. I also hope that this will be helpful to the post-graduate medical professionals as well.

Profound thanks and best wishes to all concerned.

Shahan Ara Banu, ndc
Director General (Grade – 1)
Directorate General of Family Planning
Medical Education and Family Welfare Division
Ministry of Health and Family Welfare (MOHFW)

Foreword

This is an occasion to express in brief about the genesis and the need that is going to be fulfilled by this Family Planning Handbook. In the undergraduate medical curriculum, Family Planning particularly the contraceptives are taught to the medical students when they are learning about Community Medicine and OB/Gyn. Medical students when they become doctors, they have a great role in improving the access to safe, voluntary family planning as a part of human rights. Imparting knowledge to our students on the different aspects of the effective use of the contraceptive methods and its service delivery systems is crucial for the country. Worldwide it is acclaimed that proper contraceptive use can bring down maternal mortality and child mortality which is now the need of the country as we graduate from a low income country (LIC) to a middle income country (MIC).

This Family Planning Handbook should be a very good teaching compendium for the medical teachers which covers international standards and Bangladesh government policies and program. It is good to see that it is not heavy on clinical aspects of the different contraceptives but contains simple, easy to use and must-know information. This Handbook can be used by the program personnels even the Nursing and Midwives' students and their teachers.

I would like to extend my heartfelt thanks and gratitude to all those who contributed to the development of this Handbook. Let me mention some of them particularly my colleagues at the Center for Medical Education (CME), some Teachers/Professors of different Medical Colleges and above all my professional colleagues at the Clinical Contraception Services Delivery Program (CCSDP) of the Directorate General of Family Planning (DGFP), the DG, DGFP and the Consultants.

Let this document/Handbook be a technical and programmatic toolkit for all concerned in Bangladesh with all support from DGFP and DGME, MOHFW.

Prof. Dr. A. H. M. Enayet Hossain
Director General
Directorate General of Medical Education
Medical Education and Family Welfare Division
Ministry of Health and Family Welfare

Preface

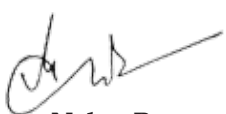
Let me take the opportunity to discuss in brief about the Family Planning Handbook. In the MBBS curriculum, family planning is included in "MCH-FP & Demography" section under Community Medicine. There are different Family Planning methods with different names in national family planning program. There are some country specific social criteria also for using the methods. Access to safe, voluntary family planning is a human right. Family planning is one of the most lifesaving, empowering and cost-effective interventions for women and girls. Effective use of family planning methods can bring down maternal mortality and child mortality. This Family Planning Handbook is designed for the medical students and physicians as well as teachers following international standards and Bangladesh government's policy and programs. It is not a clinical book but it is a collection of must-know information. Nursing and Midwives' students also can use this Handbook.

This Handbook consists of specific learning objectives with short brief and key points related to the different methods (modern and traditional). All contraceptive methods along with counseling, infection prevention is mentioned considering our country perspectives. For each of the contraceptive methods, the points that are noted includes Types, Mode of action, Effectiveness, Instruction of use, Contraindications, Advantages, Disadvantages, Side effects, Waring signs of use and Commonly asked questions. For detail information, there are different books and references and also links which are mentioned at the end of this Handbook.

The development of this Handbook has been a joint effort of many people which includes the officials of Center for Medical Education, several Professors of different Medical Colleges who are involved in teaching contraceptives and Family Planning to the students, my colleagues at the Clinical Contraception Services Delivery Unit (CCSDP) of the Directorate General of Family Planning with the DG, DGFP in the leadership. I would like to mention with huge thanks to the Members of the Technical Working Group, the Reviewers and the Consultants who drafted the entire text of this Handbook.

I hope that this Handbook would be a great addition in the Family Planning arena particularly for the medical students, physicians and teachers. This Handbook is certainly going to bridge the gap between the Family Planning program persons and the Health professionals.

It would stay as a living document and from time to time, CCSDP of DGFP will be responsible to update the content in terms of technical and programmatic perspectives.



Dr. Nurun Nahar Begum
Line Director, CCSDP
Directorate General of Family Planning

Disclaimer

This Family Planning Handbook for Medical Students and Physicians has been developed with information taken from the National Family Planning Manual, Bangladesh, reprinted in June 2018 by Clinical Contraception Services Delivery Program (CCSDP) of Directorate General of Family Planning, Family Welfare and Medical Education Div., MOHFW. Information and style of text presentation has also been taken from the Family Planning, a global Handbook for Providers, updated third 2018 edition, by USAID, Johns Hopkins Bloomberg School of Public Health, Johns Hopkins Center for Communications Programs and WHO. For any questions or clarifications please refer to LD, CCSDP, DGFP, MOHFW, Bangladesh.

CHAPTER 1

Basics of Family Planning

The first chapter of this Handbook is all about the different aspects of Family Planning/contraceptives starting from the benefits to impacts.

Objectives

At the end of reading this chapter the readers will be able to:

- Define Family Planning and classify the contraceptives
- Mention the benefits of Family Planning
- Explain the mechanisms of Maternal Death Reduction by Family Planning
- Describe the impact of Family Planning on the SDGs aligning with maternal mortality

Family planning is a lifestyle now. It is becoming more and more a necessity for the different aspects of our lives. In developing countries like Bangladesh, Family Planning is an issue that correlates to and intersects with the various determinants of women's health and well-being both individually and in their communities. It is considered as one of the greatest public health advances of the past century. Family Planning empowers women by decreasing excessive childbearing particularly unwanted and unplanned pregnancies, reduces poverty in different ways and means, granting them the ability to attain higher education, obtain better economic opportunities, and results in the avoidance of unsafe abortions and diminishing the chances of maternal and infant mortality.

It is imperative to ensure access, affordability, acceptability, availability of quality family planning methods (contraceptives) to the general population. In this journey, healthcare practitioners including doctors and the paramedics have an important role to play. In fact, healthcare practitioners have been advocating/counselling patients about various available family planning methods keeping in mind the context and need of the users. As such, healthcare practitioners need to know details about the family planning methods, mode of action

and the quality of service delivery. These are the key motivation and reasons behind developing this book. This book will be handy for healthcare practitioners including medical students.

Different online publications, off-site documents and literature have been consulted to develop this book. It is pertinent to mention that *Family Planning : A Global Handbook for Providers* published by WHO and USAID; and the national Family Planning Manual 2017 in Bangla published by DGFP are the key sources for this book.

Defining Family Planning

According to the World Health Organization (WHO), family planning is defined as "the ability of individuals and couples to anticipate and attain their desired number of children and the spacing and timing of their births. It is achieved through use of contraceptive methods and the treatment of involuntary infertility. A woman's ability to space and limit her pregnancies has a direct impact on her health and well-being as well as on the outcome of each pregnancy."

Benefits of FP

Benefits of FP for all Women

- Lower risk of maternal death
- Lower risk of anemia, poor pregnancy outcomes and complications and complications related to miscarriage or unsafe abortion
- Non-contraceptive benefits from some methods
- Improved educational and economic opportunities

Non-contraceptive benefits

- Proven Benefits: Acne, Primary dysmenorrhea, Secondary dysmenorrhea from endometriosis, Menorrhagia, Reduction in risk of endometrial, ovarian and colon cancer
- STI and HIV prevention
- Unproven or disproven effects: Leiomyoma growth, Functional ovarian cysts (treatment), Bone mineral density

Benefits of FP for Children

- Longer breastfeeding
  - Provides nutrition
  - Protects from childhood diseases
  - Improves mother/child bonding

- Reduces child illness and death
- Allows more time and resources for parents to meet the needs of each child

Benefits of FP for Families and Communities

- Families can devote more resources to providing for each child
- Reduced maternal and child illness reduces economic strain on family
- Relieves economic, social and environmental pressures
- Enhances women's status and promotes equality between men and women

Non-contraceptive benefits of hormonal contraceptives

Preventive	Therapeutic
• Ovarian cancer • Endometrial cancer • Colorectal cancer • Endometriosis • Functional ovarian cysts • Uterine leiomyoma • Benign breast disease • Iron deficiency anemia	• Heavy menstrual bleeding • Dysmenorrhea • Premenstrual syndrome • Endometriosis • Acne • Premenopausal symptoms

Causal Mechanisms of Maternal Death Reduction by Family Planning

- Reduce repeated pregnancy
- Reduce risks of abortion
- Delaying first birth before pelvis maturity
- Reduce hazards from high parity pregnancies
- Promote enabling in accessing maternity care
- Preserve health status
- Improve economic wellbeing of family

Impact of Family Planning on the SDGs[1]

Contraceptive use exerts both a direct and indirect effect on development outcomes, including those captured within the SDGs. Directly, contraception reduces the risk of maternal and newborn mortality by decreasing exposure to pregnancy. In addition, contraceptive use results in fewer high-risk pregnancies on average as first pregnancies are delayed beyond adolescence and subsequent pregnancies are better spaced. Contraception also affects the total number of children in a family.

[1]*(Source: Health Policy Plus Project)*

These factors impact a country's total fertility rate as well as other demographic variables such as the share of children relative to working-age adults (a measure of economic burden), population growth and the size of the total population. These population dynamics matter for broader development. Population dynamics impact economic growth and prosperity, human capital, food and agriculture, health and education, the availability of social services and more.

Planet

- FP mitigates population growth's effects on access to water and sanitation
- FP can expand access to clean and renewable energy
- FP contributes to building safe, resilient and sustainable cities
- FP helps reduce population effects on food and chemical waste
- FP helps address the challenges of climate change
- FP helps to protect declining marine resources
- FP helps mitigate the effects of deforestation and unhealthy interaction among humans, domestic animals and wildlife

Prosperity

Investing in Family Planning is a development "BEST BUY"

- For every $1 spent on FP, $6 is saved
- Prevent 30% Maternal Death
- Avert 20% Newborns Death
- Reduce >66% unintended pregnancies
- Reduce unsafe abortion by 40%

Peace

- Family planning reduce inequalities- addressing the needs of Disadvantaged Populations
- Family planning contributes to Peace and Stability

Partnership

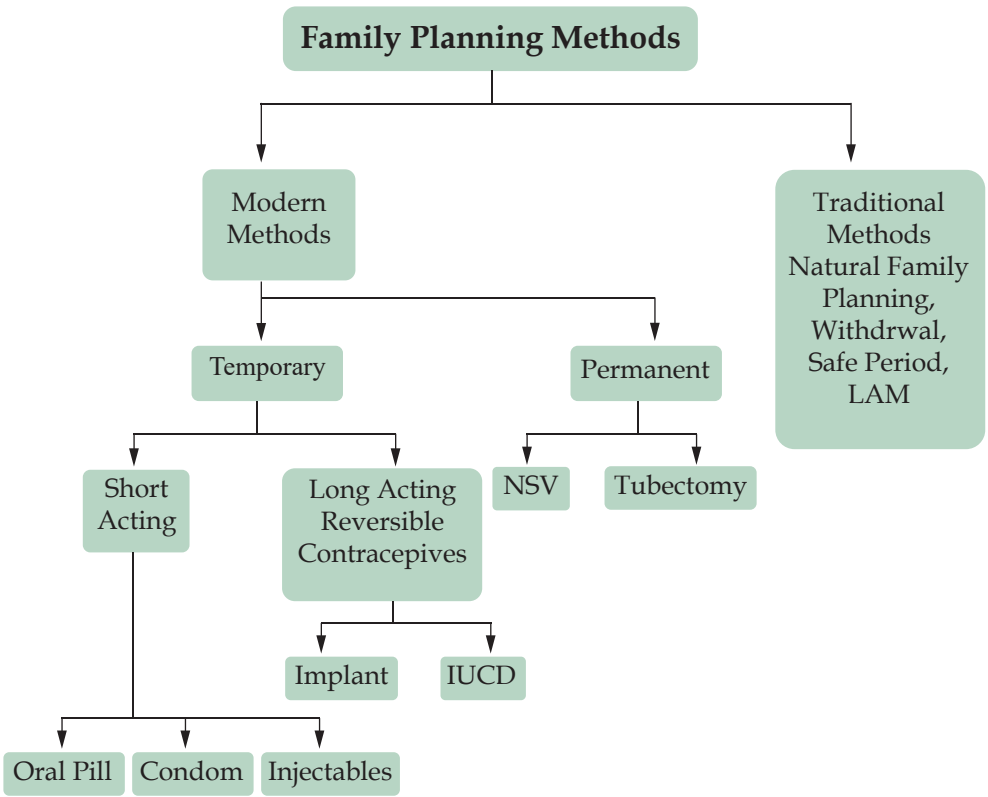
FP partnerships can support the achievement of the SDGS-

- Family Planning 2020
- UN Commission for Life Saving Commodities
- Donors, civil society organizations, and the private commercial sectors

Contraceptives' Classification

Different family planning methods are available and used in Bangladesh. Seven modern contraceptive methods are available in the Government's population program. Some clients obtain their contraceptive method from the private sector or they purchase it from the pharmacies. The contraceptive methods can be classified in many ways, some of which are given below.

Classification of the contraceptive methods



Source: WHO, DMT

Key points

- **Benefits of FP for All Women;** Lower risk of maternal death, lower risk of anemia, poor pregnancy outcomes and complications, complications related to miscarriage or unsafe abortion
- There are direct and indirect **impact of Family Planning on the SDGs** mainly on the Planet, Peace, Prosperity and Partnerships
- The contraceptives worldwide are classified into **Modern and Traditional methods.** Of the Modern methods there are short acting, long acting reversible and permanent methods (7 methods)

CHAPTER 2

Family Planning: Global and Bangladesh Situation

After having a discussion on the benefit and impact of Family Planning any reader will be able to provide the information about the Family Planning program worldwide and specifically in Bangladesh. This Chapter has the following objectives:

Objectives:

At the end of reading this chapter the readers will be able to:

- Describe the Family Planning program worldwide
- Define commonly used acronyms like TFR, CPR, unmet need and discontinuation rate
- Explain the history of Bangladesh Family Planning program along with the FP2020 goals and mention the use of contraceptive with examples taken from Bangladesh
- Describe the FP service delivery set up in Bangladesh

Contraceptive use varies substantially around the world, both with respect to total use and the types of methods used. According to 2019 Family Planning Data Sheet, globally, 62 percent of married women (ages 15 to 49 years) use a method of family planning and 56 percent use a modern method. Examples of modern methods include pill, intrauterine devices, implants, injectable, condoms, and sterilization. These rates are twice as high among women living in high-income countries (67 percent and 60 percent, respectively) compared to women living in low-income countries (34 percent and 29 percent, respectively)—a result of differences in access to, availability of, and demand for modern methods of contraception. At a country level, use of any method of family planning among married women can vary significantly, ranging from 4 percent (South Sudan) to 88 percent (Norway).

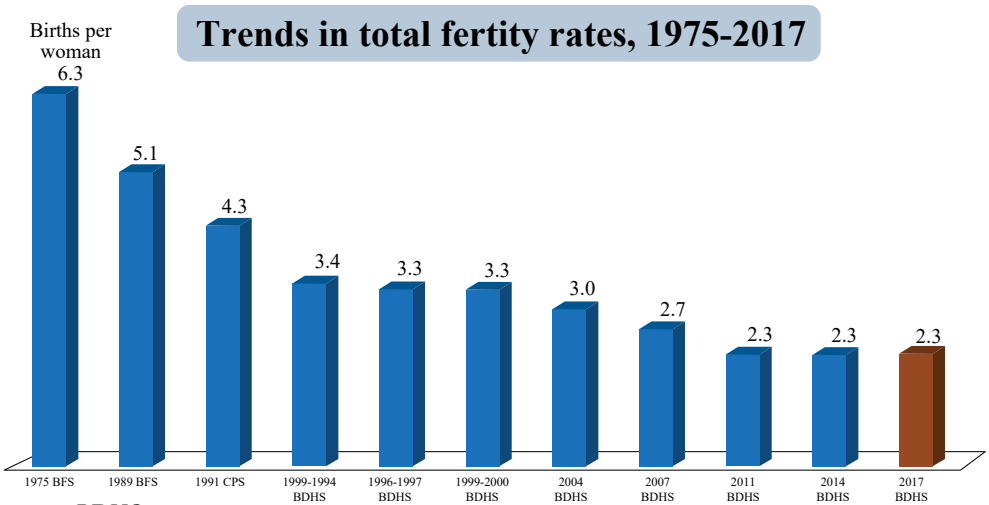
Bangladesh has made significant achievements during the last decades in reducing population growth and improving maternal and child health. The reduction in the total fertility rate (TFR) from 6.3 births per woman in 1975 to 3.4 in 1994 and to 2.3 in 2017 is encouraging.

According to Bangladesh Demographic Health Survey (BDHS) 2017-2018, 62% of currently married Bangladeshi women age 15–49 years are using a contraceptive method. 52% of women use modern methods of contraception. The discontinuation rate increased from 30% in 2014 to 37% in 2017. Overall, 12% of currently married women in Bangladesh had an unmet need for family planning services in 2017.

FP 2020 Commitments of Bangladesh				
Indicators	2012	2014	2017	Goal
TFR	2.3	2.3	2.3	2.0
CPR	61	62.4	62	75
LAPM	8	8.1	9.2	20
Unmet need	13.5	12	12	10
Discontinuation rate	36	30	37	20

The FP2020 commitment of Bangladesh had been to reduce TFR to 2.0; increase CPR to 75%; in that increase the share of Long Acting and Permanent Methods (LAPM) to 20%; decrease unmet need to 10; and also decrease discontinuation of contraceptive use rate to 20%. The Government of Bangladesh updated its Family Planning 2020 commitment at the Family Planning Summit in London, UK on July 11, 2017.

Total Fertility Rate (TFR): Total Fertility Rate (TFR) is defined as, "the average number of children a woman would have assuming that current age-specific birth rates remain constant throughout her childbearing years."

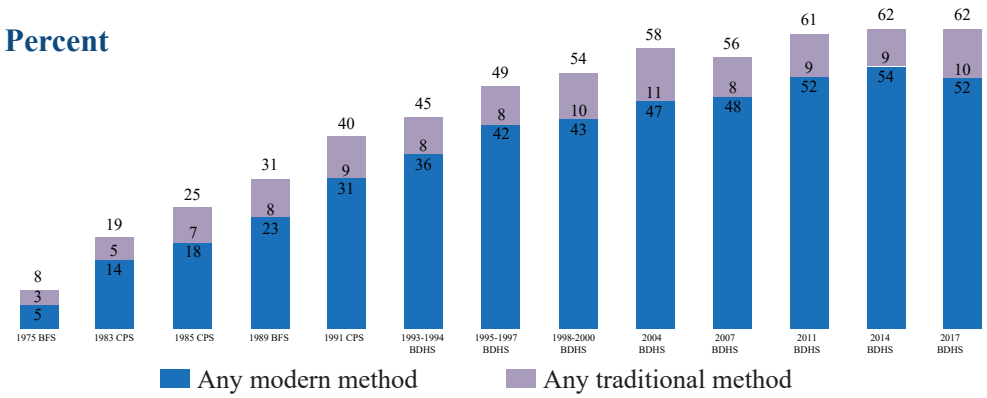


source: BDHS

The Total Fertility Rate (TFR) is always considered to be a significant outcome of contraceptive use. Starting from 6.3 births per woman the TFR has come down to 2.3 and this is stagnated since 2011. In this regard Government sometimes mention statistics collected by BBS through their collection of Vital Registration data called SVRS and out of that they refer the TFR to be 2.04 in 2019

Contraceptive Prevalence Rate (CPR): The percentage of women of reproductive age who are using (or whose partner is using) any contraceptive method at a particular point in time.

Trend in contraceptive use among currently woman. 1975-2017



source: BDHS

The Contraceptive Prevalence Rate (CPR)

The following table is a comparison of the different contraceptive use among the BDHS 2007, 2011, 2014 and 2017. Overall the use of the modern methods is on the decline including the short acting methods. Between 2014 and 2017 there has been slight increase in the long acting reversible and permanent methods.

Percentage of currently married women age 15-49 years who are currently using specific family planning methods

Method	BDHS 2007	BDHS 2011	BDHS 2014	BDHS 2017
Any method	**55.8**	**61.2**	**62.4**	**61.9**
Any modern method	**47.5**	**52.1**	**54.1**	**51.9**
Pill	28.5	27.2	27.0	25.4
Injectables	7.0	11.2	12.4	10.7
Condom	4.5	5.5	6.4	7.2
Short Acting Methods	**40.0**	**43.9**	**45.8**	**43.3**
Female sterilization	5.0	5.0	4.6	4.8
Male sterilization	0.7	1.2	1.2	1.1
IUD	0.9	0.7	0.6	0.6
Implant	0.7	1.1	1.7	2.1
LARC & PM	**7.3**	**8.0**	**8.1**	**8.6**
Any traditional method	**8.3**	**9.2**	**8.4**	**10.0**
Periodic abstinence	4.9	6.9	6.2	7.0
Withdrawal	2.9	1.9	1.9	2.8
Other traditional methods	0.6	0.4	0.3	0.2

The above two bar diagrams of TFR and CPR and also the detail description of the use rate of the various contraceptives over the different DHSs is a clear picture of the contraceptive use dynamics of the entire Bangladesh.

Unmet need for Family Planning

The percentage of fecund women of reproductive age who want no more children or to postpone having the next child, but are not using a contraceptive method, plus women who are currently using a traditional method of family planning. Women using a traditional method are assumed to have an unmet need for modern contraception.

Discontinuation rate

Users who discontinue using a contraceptive method within 12 months of beginning the use during a specific episode of use. Users who switch to another method are considered to have discontinued the previous method at the time of switching.

Couple-years of Protection (CYP): The CYP is calculated by multiplying the quantity of each method distributed to clients by a conversion factor, to yield an estimate of the duration of contraceptive protection provided per unit of that method. The CYPs for each method are then summed over all methods to obtain a total CYP figure. CYP calculation per method is give below:

Methods	CYP/unit
Oral Contraceptives	15 Cycles per CYP
Condoms (male and female)	120 units per CYP
Depo Provera Injectable	4 doses (ml) per CYP
Copper-T 380-A IUD	4.6 CYP per IUD inserted
3 Year Implant (one rod)	2.5 CYP per implant
5 Year Implant (two rods)	3.8 CYP per implant
Emergency Contraceptive Pills	20 doses per CYP
Sterilization (male and female) - Global - India, Bangladesh, Nepal	 10 CYP 13 CYP

Wishik and Chen, 1973; Stover, Bertrand and Shelton, 2000

Eligible Couple (ELCO):

Eligible Couple mean a currently married couple wherein the wife is in the reproductive age (i.e. 15 -49 yr. of age).

Demography:

Demography is the statistical study of human populations. Demography examines the size, structure, and movements of populations over space and time. Demography is useful for governments and private businesses as a means of analyzing and predicting social, cultural, and economic trends related to population, e.g. study by looking at statistics on pregnancy and childbirth.

Demographic Dividend:

Demographic dividend is economic growth brought on by a change in the structure of a country's population, usually a result of a fall in fertility and mortality rates. The demographic dividend comes as there's an increase in the working population's productivity, which boosts per capita income. This result from shifts in a population's age structure, mainly when the share of the working-age population (15 years to 64 years) is larger than the non-working-age share of the population (14 years and younger, and 65 years and older). Demographic dividend in Bangladesh started in 1980 and according to low variant it will end in 2035 and according to medium and high variant it will end in 2040.

Contraceptive History of Bangladesh

Bangladesh Family Planning Program evolved through a series of development phases that took place during the last 52 years. Family planning efforts in this country began in the early 1950s with voluntary efforts of a group of social and medical workers. Categorical FP program emerged during 1965-95 with the objective to control population growth as a strategy of economic development. The Family Planning Program in Bangladesh has undergone a number of transitional phases. The phases may be illustrated as follows:

In phase-1, the effort was limited to the small-scale contraceptive distribution services in urban areas, particularly through hospitals and clinics.

The Government set up a target of providing family planning services to 6.7 percent eligible couples and opened a family planning center in every hospital and rural dispensary in phase-2.

The Field-based Government Family Planning Program was introduced in the 3rd phase.

In phase-4, family planning services was functionally integrated with health services at the field level and also oral pill was introduced in the family planning program as a method of contraception.

Maternal and Child Health (MCH)-based Multi-sectoral Program was introduced and full-time male and female field functionaries were recruited on a regular basis to cause a thrust of the MCH-FP program in rural Bangladesh in 5th phase.

In phase-6, Delivery of MCH-FP services were functionally integrated with Health at Upazilla level and below.

Intensive Family Planning Program and Reduction of rapid growth of population through intensive service delivery and community participation was launched along with enhancing women's status through education and participation in social, economic and political life in phase 7 & 8.

In the 9th phase, Health and Population Sector Program (HPSP) was introduced.

To overcome the multidimensional problems and to meet the challenge according to the spirit of the International Conference on Population and Development (ICPD), the Government of Bangladesh launched the Health, Nutrition and Population Sector Program (HNPSP) in 2003.

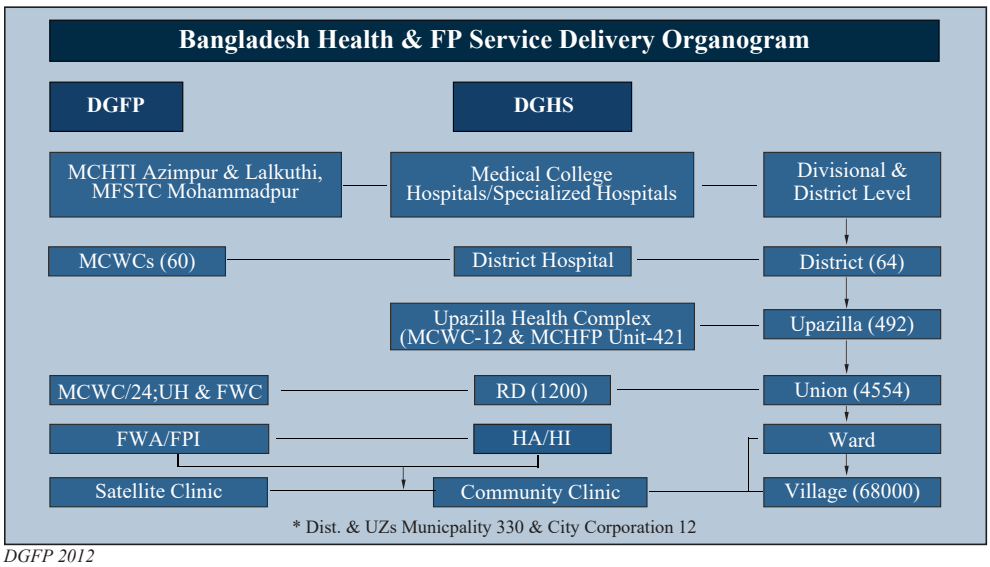
Then the Government has initiated updating the population policy in 2004. Major successes in population sector programs were achieved in expanded access to family planning services with introduction of a broader range of modern and effective methods through Health, Nutrition and Population Sector Development Program (HNPSDP) in 2016. Then the Government started the 4th Sector program starting from July 2017 to June 2022 with further extension to June 2023.

Bangladesh FP service delivery structure

The Family Planning program is under the Family Welfare and Medical Education Division of MOHFW implemented by the Directorate General of Family Planning (DGFP). The service delivery of the Family Planning program is almost a vertical system parallel to the Health Services which is under a separate Division (Health Services Division) of MOHFW implemented by the Directorate General of Health Services (DGHS).

A brief description of the contraceptive service delivery is described below and also shown in the schematic diagram:

- District Sadar Hospital/ Medical College Hospitals: Family Planning including post-partum family planning services is provided here. These facilities are under DGHS
- Maternal and Child Welfare Centers (MCWCs): These facilities are under DGFP and provide MCH-based family planning services
- Upazilla Health Complexes (UHCs): In each UHC, there is MCH-FP unit under DGFP and provide MCH-based family planning services
- Union Health and Family Welfare Center (UH&FWC): These facilities are under DGFP and provide MCH-based family planning services
- At union level Family Planning Inspectors (FPIs) are working to supervise the activities of Family Welfare Assistants (FWAs) who work at village level
- Family Welfare Assistants (FWAs): This category of field staff of DGFP work at village level, provide information to prospective clients on MCH and FP and motivate them to adopt a FP method, distribute condom and oral pills and provide the three-monthly shots of contraceptive injectable



DGFP 2012

Key points

- According to 2019 Family Planning Data Sheet, **globally, 62 percent of married women (ages 15 to 49) use a method of family planning** and **56 percent use a modern method**
- According to Bangladesh Demographic Health Survey (BDHS) 2017-2018, **62% of currently married Bangladeshi women (age 15–49) are using a contraceptive method (CPR) At the same time the TFR has been 2.3**
- For contraceptive service delivery there is a well set up of facilities at the different levels of the country
- **Ensuring quality of services is a cornerstone** in the Bangladesh Family Planning program

CHAPTER 3

Oral Contraceptives

Among the contraceptives, oral pills are the most popular and widely used method all over the world. A similar situation persists in Bangladesh. This Chapter on oral contraceptives has been developed with the following objectives:

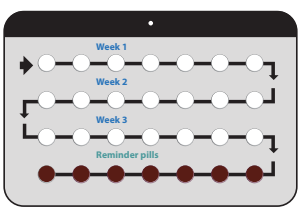
Objectives

At the end of reading this chapter the readers will be able to:

- Describe combined oral contraceptives (COC) and the progesterone only pills (POP)
- Explain the mode of action of COC and the progesterone only pills
- Mention the effectiveness, indications, absolute contraindication of COC & POP
- List the advantages, disadvantages and side effects of COC and the POP

Combined Oral Contraceptives

Combined Oral Contraceptives (COCs) contain low doses of 2 hormones—a progestin and an estrogen—like the natural hormones progesterone and estrogen in a woman's body. They are also called "the Pill," low-dose combined pills, OCPs, and OCs. In Bangladesh, combined oral contraceptive is the most commonly used contraceptive method. Combined oral pill available in the National Family Planning program in Bangladesh is named as "Sukhi". The Sukhi pill contains Levonorgestrel 0.15 mg., Estradiol 0.03 mg., and Ferrous Fumarate 75 mg. Other available brands are- Femicon, Nordette-28, Ovostat Gold etc.



Picture of the combined oral contraceptive pill available in the Government program

Types of Oral Pills (GOB ones)

Composition of current combined oral contraceptive pills are estrogen and progestin hormones. The type of pill depends largely on the estrogen content. Progestin only pills known as the mini pill are an effective contraceptive if taken correctly.

DGFP has introduced a 3rd generation oral contraceptive pill in the national program named as Sukhi (third generation) from March, 2019. It contains 2 hormones, Desogestrel (150 microgram) and Ethinyl Estradiol (30 microgram) and seven Ferrous Fumarate (75 microgram) tablets. This variety of oral pills are highly effective and well tolerated by most of the users. It's mode of action is like the other combined oral contraceptive pills but have less side effects. Now both second and third generation pills are available in the national program.

Mode of action

- Prevention of ovulation is considered the dominant mechanism of action
- Estrogen inhibits secretion of FSH via negative feedback on the anterior pituitary, and thus suppresses development of the ovarian follicles
- Progestin inhibits secretion of LH and thus prevents ovulation; it also makes the cervical mucus less suitable for the passage of the sperm
- Estrogen and Progestin act in concert to alter the endometrium in such a way as to discourage implantation
- They may also interfere with the coordinated contractions of the cervix, uterus and fallopian tubes that inhibits fertilization and implantation

Effectiveness

Effectiveness depends on the user: Risk of pregnancy is greatest when a woman starts a new pill pack 3 or more days late, or misses 3 or more pills near the beginning or end of a pill pack.

- As commonly used, about 7 pregnancies occured per 100 women using COCs during the first year. This means that 93 of every 100 women using COCs will not become pregnant
- When no pill-taking mistakes are made, less than 1 pregnancy occured per 100 women using COCs during the first year (3 per 1,000 women)

- Return of fertility after COCs are stopped: No delay
- Protection against sexually transmitted infections (STIs): None

Indications

- Couples who want a method that does not interfere with sexual intercourse
- Women who want to reduce bleeding or cramps
- Women who will make sure they take a pill every day
- Couple who want spacing/reversible method

Contraindications

Absolute contraindications

- Active thrombophlebitis or venous thrombo-embolism disorder
- Acute or chronic obstructive liver disease with elevated liver enzyme levels or compromised liver function
- Known or suspected breast cancer
- Undiagnosed genital bleeding
- Smoking in women over 35
- Known or suspected pregnancy
- Elevated blood pressure levels Systolic ≥ 160 or Diastolic ≥ 100
- Major surgery with prolonged immobilization
- Breastfeeding before 6 months (after 6 months postpartum period can use combined pill)

Relative contraindications

- Diabetes
- Chronic high blood pressure
- Chronic bad headaches

Advantages

- Does not interfere with sexual intercourse
- Highly effective

Help protect against

- Risks of pregnancy
- Cancer of the lining of the uterus
- Cancer of the ovary
- Symptomatic pelvic inflammatory disease

May help protect against

- Ovarian cysts
- Iron deficiency anemia

Disadvantages

- Must be taken regularly
- Common side effects may be unacceptable to some women
- Affects the users natural hormone cycle
- Does not protect from HIV/STI

Side effects

Some users report the following:

- Changes in bleeding patterns, including:
  - Lighter bleeding and fewer days of bleeding
  - Irregular bleeding
  - Infrequent bleeding
  - No monthly bleeding
- Headaches
- Dizziness
- Nausea
- Breast tenderness
- Excess hair on face or body
- Weight change
- Mood changes
- Acne

Other possible physical changes:

- Blood pressure increases a few points. When increase is due to COCs, blood pressure declines quickly after use of COCs stops

Warning signs of dangerous complications

- Severe abdominal pain (may mean gall bladder, pancreas or liver disease, blood clot)
- Severe leg pain (may mean blood clots in leg)
- Loss of vision or blurred vision, headaches, dizziness, weak ness, numbness (may mean stroke or hypertension), slurred speech

Instructions for missed menstrual periods

If the client misses two or more menstrual periods, she should come to the clinic to check to see if she is pregnant.

Instructions for users

In Bangladesh most of the combined oral pills come in packets of 21 white pills (composition of which are hormones) and 7 brown pills (iron tablets). Some packets contain only the 21 or 22 white contraceptive pills.

- Clients should be made aware of the user instructions and shown a pack of pill
- The first oral pill should be taken on the first day of the menstrual period. (Although it can be started between day 1 and day 5 of the menstrual cycle)
- If a woman has undergone abortion or MR or if a woman has aborted and if she wants to use oral pills as a contraceptive method, she has to start using it on the day she had the MR/ abortion within 5 days
- If a woman is using another family planning method and is sure that she is not pregnant, she may begin oral pill use any time
- Always one should begin with the first pill in the packet Instruction in the strip of the pill such as arrow should be followed to determine order of intake. Beginning from the first pill to 21 white pills should be taken in 21 days
- After white pills are finished, the seven iron tablets should be taken, one tablet daily for seven days. Menstruation usually starts while using the brown pills. Women should not stop taking brown pills even if their menstruation has ended
- Regardless of whether the menstrual period has ended or not, white pills from a new packet of pills should be started from the next day of completing the seven brown pills
- Oral pills should be taken with water. It is a good habit of taking pills at the same time every day. The best time for taking oral pills is after dinner or before sleep

Instructions for missing pill

1. **If the women have missed one or two white pills**
   - Take one pill immediately or as soon as she remembers it
   - Take the routine pill at the regular time. This may mean taking two pills on the same day or even at the same time
   - Take the rest of the pills as usual
2. **If the woman has missed three consecutive pills during the first or second week of menstrual cycle**
   - Take one pill immediately or as soon as she remembers it
   - Take the routine pill at the regular time. This may mean taking two pills on the same day or even at the same time
   - Take the rest of the pills as usual
   - For next 7 days use condom or avoid sex
   - If required use emergency contraceptive pill (ECP)

3. **If the woman has missed three consecutive pills during the third week of menstrual cycle**
   - Take one pill immediately or as soon as she remembers it
   - Take the routine pill at the regular time. This may mean taking two pills on the same day or even at the same time
   - Take the rest of the pills as usual
   - Start a new packet from the next day
   - For next 7 days use condom or avoid sex
   - If required use emergency contraceptive pill (ECP)

Key points (Combined oral contraceptives)

- **Take one pill everyday.** For greatest effectiveness a woman must take pills daily and start each new pack of pills on time
- **Take any missed pill as soon as possible.** Missing pills risks pregnancy and may make some side effects worse. Follow the missed pill instructions given inside
- Bleeding changes are common but not harmful. Typically, there is irregular bleeding for the first few months and then lighter and more regular bleeding
- **Can be given to a woman at any time to start now or later**

Progestin Only Pill

Progestin only pill (POP), also known as minipill contain a very small amount of only one kind of hormones, progestin. POPs contain one-half to one-tenth of progestin compared to COCs. They do not contain estrogen and are best suited for breastfeeding women, as they do not reduce quantity of milk. POPs are also more effective in breastfeeding women because of the additional protective effect of the lactational amenorrhea. Women who are not breastfeeding should adhere to a very strict POP schedule. Delaying the next pill by as little as 3 hours may lead to ovulation and subsequent pregnancy.A number of preparations are currently available using a variety of progestin. Progestin- only pill (POP) available in the National Family Planning Program is named as "Apon" (contains Norgestrel 0.075 mg.) and another brand marketed by Social Marketing Company (SMC) is named as "Minicon". There are many other POPs available in the private market. Progestin- only pills (POPs) are taken every day with no pill-free intervals.

Picture of the POP available in the Government Program

Mode of action

Prevention of ovulation is considered the dominant mechanism of action.

- Progestin inhibits secretion of LH and thus prevents ovulation; it also makes the cervical mucus less suitable for the passage of the sperm
- It alters the endometrium in such a way as to discourage implantation
- It also interferes with the coordinated contractions of the cervix, uterus and fallopian tubes that inhibits fertilization and implantation

Effectiveness

Effectiveness depends on the user: For women who have monthly bleeding, risk of pregnancy is greatest if pills are taken late or missed completely. As commonly used, about 1 pregnancy occured per 100 women using POPs during the first year. This means that 99 of every 100 women will not become pregnant. When pills are taken every day, less than 1 pregnancy occured per 100 women using POPs during the first year (3 per 1,000 women).

Less effective for women not breastfeeding

As commonly used, about 7 pregnancies occured per 100 women using POPs during the first year. This means that 93 of every 100 women will not become pregnant.

When pills are taken every day at the same time, less than 1 pregnancy occured per 100 women using POPs during the first year (3 per 1,000 women).

Indications

- Women who have side effects or a recognized contraindication to combined oral contraceptive pills or estrogen
- Women over the age of 35 who smoke
- Women with migraine headaches, including focal varieties
- Lactating women
- Women with sickle cell disease

Absolute contraindications

There are absolute contraindications to Progestin-only pills (POPs) other than known or suspected pregnancy and the presence of undiagnosed vaginal bleeding. If pregnancy would be devastating to a woman with underlying medical or obstetrical problems the POP may not be a good choice, because of the diligence required to achieve reliable prevention.

Advantages

- Does not interfere with intercourse
- Protects against risks of pregnancy

Disadvantages

- Must be taken regularly
- Common side effects may be unacceptable to some women
- Does not protect from HIV/STI

Side effects

Some users report the following:

- Changes in bleeding patterns, frequent bleeding including:
  - Irregular bleeding
  - Infrequent bleeding
  - Prolonged bleeding
  - No monthly bleeding
- For breastfeeding women, longer delay in return of monthly bleeding after childbirth (lengthened postpartum amenorrhea)
- Breastfeeding also affects a woman's bleeding patterns
- Headaches and Dizziness
- Mood changes
- Breast tenderness
- Abdominal pain
- Nausea
- Other possible physical changes: For women not breastfeeding, enlarged ovarian follicles

Instructions for users

The pill should always be taken at the same time every day (within three hours) to ensure reliable effect. It is important to emphasize that unlike the combined oral contraceptive pill (OCP) there is no pill free interval and all twenty-eight pills in a package contain active medication.

Instructions for missing pills

Even if one pill is forgotten or the woman has vomiting and diarrhea, a back-up method of contraception (condoms) must be used for at least 48 hours. The woman should continue to take her tablets as prescribed.

Key points (POPs)

- **Take one pill every day.** No breaks between packs
- **Safe for breastfeeding women and their babies** Progestin-only pills do not affect milk production.
- **Add to the contraceptive effect of breastfeeding.** Together, they provide effective pregnancy protection
- **Bleeding changes are common but not harmful.** Typically, pills lengthen how long breastfeeding women have no monthly bleeding. For women having monthly bleeding, frequent or irregular bleeding is common
- **Can be given to a woman at any time to start now or later**

Questions and Answers about oral contraceptives pill

1. Should a woman take a "rest" from COCs after taking them for a time?
   No, there is no evidence that taking a rest is helpful. In fact, taking a "rest" from COCs can lead to unintended pregnancy. COCs can safely be used for many years without having to stop taking them periodically.
2. If a woman has been taking COCs for a long time, will she still be protected from pregnancy after she stops taking COCs?
   No, a woman is protected only as long as she takes her pills regularly.
3. How long does it take to become pregnant after stopping COCs?
   Women who stop using COCs can became pregnant as quickly as women who stop non-hormonal methods. COCs do not delay the return of a woman's fertility after she stops taking them. The bleeding pattern a woman had before she used COCs generally returns after she stops taking them. Some women may have to wait a few months before their usual bleeding pattern returns.

4. Do COCs cause birth defects? Will the fetus be harmed if a woman accidently takes COCs while she is pregnant?
   No. Good evidence shows that COCs will not cause birth defects and will not otherwise harm the fetus if a woman becomes pregnant while taking COCs or accidently starts to take COCs when she is already pregnant.
5. Can a woman safely take COCs throughout her life?
   Yes. There is no minimum or maximum age for COC use. COCs can be an appropriate method for most women from onset of monthly bleeding (menarche) to menopause.
6. Is it important for a woman to take her COCs at the same time each day?
   A woman can take her COCs at different times of day, and they will still be effective. However, taking them at the same time each day can be helpful for two reasons. Some side effects may be reduced by taking the pill at the same time each day. Also, taking a pill at the same time each day can help women remember to take their pills more consistently.
7. Can a woman who is breastfeeding safely use POPs?
   In 2016 WHO considered this question and updated its guidance to allow a woman to use progestin-only pills after childbirth regardless of how recently she gave birth. She does not need to wait until 6 weeks postpartum. POPs are safe for both the mother and the baby and do not affect milk production.
8. What should a woman do when she stops breastfeeding her baby? Can she continue taking POPs?
   A woman who is satisfied with using POPs can continue using them when she has stopped breastfeeding. She is less protected from pregnancy than when breastfeeding. However, she can switch to another method if she wishes.
9. If a woman does not have monthly bleeding while taking POPs, does this mean that she is pregnant?
   Probably not, especially if she is breastfeeding. If she has been taking her pills every day, she is probably not pregnant and can keep taking her pills. If she is still worried after being reassured, she can be offered a pregnancy test, if available, or referred for one. If not having monthly bleeding bothers her, switching to another method may help—but not to another progestin-only method. These methods sometimes stop monthly bleeding.

CHAPTER 4

Condom

Condom is one of the old times/ancient contraceptives. It is the only short acting contraceptive for the males. Nowadays taking the principles of the functioning of the condoms, it has been developed for the females as well.

Objectives

At the end of reading this chapter the readers will be able to:

- Describe the two varieties (male and female) of condoms
- Explain the mode of action of condoms
- Mention the effectiveness, indications, contraindications of condoms
- List the advantages and disadvantages of condoms

Picture of the male condom available in the government program.

Mode of Action

The thin rubber sheath that is put over erect penis immediately before and during sexual intercourse is a barrier method that prevents pregnancy by preventing the man's semen or open sores on penis from coming on contact with the anus or vagina of the sexual partner, and prevents infection from Sexually Transmitted Infections (STI), including HIV/ AIDS.

Effectiveness

Effectiveness depends on the user: Risk of pregnancy or sexually transmitted infection (STI) is greatest when condoms are not used with every act of sex. Very few pregnancies or infections occur due to incorrect use, slips, or breaks.

Protection against pregnancy

- As commonly used, about 13 pregnancies occured per 100 women whose partners use male condoms during the first year. This means that 87 of every 100 women whose partners use male condoms will not become pregnant
- When used correctly with every act of sex, about 2 pregnancies occured per 100 women whose partners use male condoms oduring the first year
- Return of fertility after use of condoms is stopped: No delay

Protection against HIV and other STIs

- Male condoms significantly reduce the risk of becoming infected with HIV when used correctly with every act of vaginal or anal sex
- When used consistently and correctly, condom use prevents 80% to 95% of HIV transmission that would have occurred without condoms. Condoms reduce the risk of becoming infected with many STIs when used consistently and correctly during vaginal or anal sex. It also protects best against STIs spread by discharge, such as HIV, Gonorrhea, and Chlamydia and those STIs spread by skin-to-skin contact, such as herpes and human papillomavirus (HPV)

Indications

- Condoms are particularly suited for couple who need a back-up method (when a pill is missed)
- Persons who do not want to risk giving or getting a STI including AIDS
- Couples who cannot use other methods, such as hormonal methods
- Couple who want a safe, effective method

- Partners of breastfeeding women
- The only contraindication for using a condom is if someone has a latex allergy

Advantages

- Can be used without service provider assistance
- Easy to use
- Relatively inexpensive and easy to obtain
- If used consistently and properly protects against STI, including HIV/AIDS
- Can be used as back-up method (i.e., when a COC pill is missed)
- Allows the man to share responsibility in family planning and prevention of STIs
- May help the man maintaining erection longer during sexual intercourse
- Often helps treat premature ejaculation

Disadvantages

- Must be used with each act of intercourse
- Requires male partner cooperation
- Can tear if exposed to high heat or humidity
- May reduce pleasure for some couple
- May come off during intercourse
- May be sensitive to latex by some users

Side effects

None

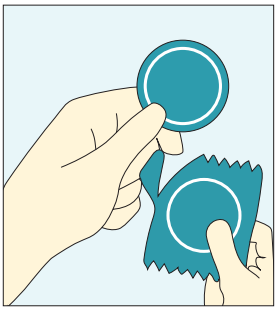
Condom Do's and Don'ts

Condom (Do's)	Condom (Don'ts)
• Do use a condom every time you have sex • Do put on a condom before having sex • Do read the package and check the expiration date • Do make sure there are no tears or defects • Do store condoms in a cool, dry place • Do use latex or polyurethane condoms • Do use water-based or silicone-based lubricant to prevent breakage	• Don't store condoms in your wallet as heat and friction can damage them • Don't use nonoxynol - 9 (a spermicide), as this can cause irritation • Don't use oil-based products like baby oil, lotion, petroleum jelly, or cooking oil because they will cause the condom to break • Don't use more than one condom at a time • Don't reuse a condom • Don't throw the condom away • Don't put the condom into a flush toilet

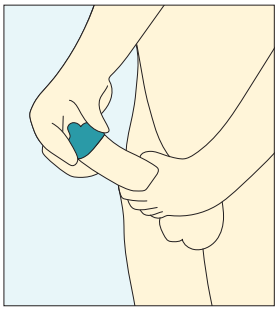
How to use a condom

1. Carefully remove the condom from packing
2. Do not use the condom if: the condom is old and damaged, the package is broken, the condom is brittle or dried out, the condom is unusually sticky, the colour is uneven or changed
3. Place the condom on the erect penis before the penis touches the vagina
4. Unroll the condom all the way to the base of the penis
5. Do not use oil-based lubricant – any lubricant used should be water based
6. After ejaculation hold the condom to the base, so the condom does not slip off while withdrawing from woman's vagina
7. Each condom must be used once
8. Do not throw the condom here and there. To avoid public nuisance, dispose condom after wrapping it in a packet.

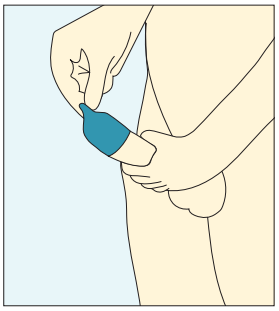
How To Put On and Take Off a Male Condom



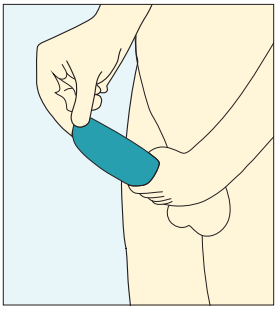
Carefully open and remove condom from wrapper



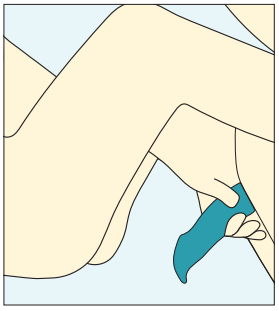
Place condom on the head of the erect hard penis. If uncirumcised pull back the foreskin first.



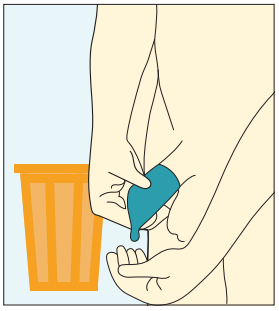
Pinch air out of the tip of the condom



Unroll condom all the way down the penis.



After sex but before pulling out, hold the condom at the base. Then pull out, while holding the condom in place.



Carefully remove the condom and throw it in the trash.

Female Condom

This method is not incorporated into the Bangladesh national family planning program. The female condoms that have recently come into the markets are made from polyurethane, which is stronger than the male condoms, and there is no allergic reaction. It is odorless and comes in one size. The condom has two rings. Using fingers, one ring should enclose and cover the opening of uterus and the other ring should be open at the vulva. If the female condom is applied before having contact with the erect phallus and not removed immediately after ejaculation, it does not lose its effectiveness.

Advantages

- Effective family planning method
- No noteworthy side effects
- Protects from STIs
- Can be put on before intercourse has started

Disadvantages

- Client or her partners may feel discomfort
- More difficult to apply than male condoms
- More expensive than male condoms
- Not available in Bangladesh

Key points (condom)

- **Male and Female condoms help protect against sexually transmitted infections,** including HIV. Condoms are the only contraceptive method that can protect against both pregnancy and sexually transmitted infections
- Require correct use with every act of sex for greatest effectiveness.
- Require both male and female partner's cooperation. Talking about condom use before sex can improve the chances one will be used
- May reduce the sensation of sex for some men. Discussion between partners sometimes can help to overcome this objection

Questions and Answers about Condoms

1. Are condoms effective at preventing pregnancy?

   Yes, male condoms are effective, but only if used correctly with every act of sex. When used consistently and correctly, only 2 of every 100 women whose partners use condoms become pregnant during the first year of use. Many people, however, do not use

condoms every time they have sex or do not use them correctly. This reduces protection from pregnancy.

2. How well do condoms help protect against HIV infection?
On average, condoms are 80% to 95% effective in protecting people from HIV infection when used correctly with every act of sex. This means that condom use prevents 80% to 95% of HIV transmissions that would have occurred without condoms. (It does not mean that 5% to 20% of condom users will become infected with HIV.)

3. Will using condoms reduce the risk of STI transmission during anal sex?
Yes. STIs can be passed from one person to another during any sex act that inserts the penis into any part of another person's body (penetration).

4. Are plastic (synthetic) condoms effective for preventing STIs, including HIV?
Yes. Plastic condoms are expected to provide the same protection as latex condoms, but they have not been studied as thoroughly. Condoms made of animal membrane such as lambskin condoms (also called natural skin condoms) are not effective for preventing STIs, including HIV.

5. What can men and women do to reduce the risk of pregnancy and STIs if a condom slips or breaks during sex?
If a condom slips or breaks, taking emergency contraceptive pills can reduce the risk that a woman will become pregnant. If exposure to HIV is likely, treatment with antiretroviral medications (post-exposure prophylaxis), where available, can help reduce HIV transmission. If exposure to other STIs is likely, a provider can treat presumptively for those STIs—that is, treat the client as if he or she were infected. Washing the penis does not help prevent STIs. Vaginal douching is not very effective in preventing pregnancy, and it increases a woman's risk of acquiring STIs, including HIV, and pelvic inflammatory disease.

6. Will condoms make a man unable to have an erection (impotent)?
No, not for most men. Impotence has many causes. Some causes are physical, some are emotional. Condoms themselves do not cause impotence. A few men may have problems keeping an erection when using condoms, however. Other men—especially older men—may have

difficulty keeping an erection because condoms can dull the sensation of having sex. Using more lubrication may help increase sensation for men using condoms.

7. Is the female condom difficult to use?
   No, but it does require practice and patience.

8. Can female condoms effectively prevent both pregnancy and STIs, including HIV?
   Yes. Female condoms offer dual protection, against both pregnancy and STIs, including HIV, if used consistently and correctly.

9. Can the female condom be used while a woman is having her monthly bleeding?
   Women can use the female condom during their monthly bleeding. The female condom cannot be used at the same time as a tampon, however. The tampon must be removed before inserting a female condom.

10. Can a female condom get lost inside a woman's body?
    No. The female condom remains in a woman's vagina until she takes it out. It cannot go past a woman's cervix and into the womb (uterus) because it is too large for that.

CHAPTER 5

Progestin only Injectable

The progesterone containing contraceptive given in the form of injectable is very popular worldwide and in Bangladesh as well.

Objectives

At the end of reading this chapter the readers will be able to:

- Describe the progesterone containing injectable contraceptive
- Explain the mode of action of the injectable contraceptive
- Mention the advantages, disadvantages and side effects of injectable contraceptive
- Describe the window period of use of injectable contraceptive

The injectable contraceptives are Depot Medroxyprogesterone Acetate (DMPA/Depo containing 150 mg, DMPA in one ml. per vial) and Norethisterone Enanthate (NET-EN). Each contain a progestin like the natural hormone progesterone available in a woman's body. In contrast, monthly injectable contain both estrogen and progestin.

Contraceptive injection DMPA is a 3-monthly temporary family planning method for women in Bangladesh national family planning program. Although there are two kinds of progesterone only contraceptive injections available worldwide as a) Depot-Medroxy Progesterone Acetate, which is known as DMPA and b) Norethisterone enanthate or NET-EN. Its commercial name is 'Noristerat ' which is not available in the Bangladesh national family planning program.

Picture of the three monthly contraceptive injectable available in the Government program.

Injectable Contraceptive

- Do not contain estrogen, and so can be used throughout breastfeeding, starting 6 weeks after giving birth, and by women who cannot use methods with estrogen
- Given by injection into the muscle (intramuscular injection) or, with a new formulation of DMPA, just under the skin (subcutaneous injection). The hormone is then released slowly into the blood stream
- DMPA, the most widely used progestin-only injectable, is also known in its intramuscular form as "the shot," "the jab," the injection, Depo, Depo-Provera, and Petogen. The subcutaneous version in the Uniject injection system is currently marketed under the name Sayana Press and in prefilled single-dose disposable hypodermic syringes as depo-sub Provera. It contains 104 mg MPA in 0.65 ml of suspension
- NET-EN is also known as Norethindrone Enanthate, Noristerat, Norigest, and Syngestal. It is not available in the Bangladesh national Family Planning program
- In Bangladesh Family Planning program, only Depo Provera is available. It is also available in the private sector marketed by SMC. In the private sector Sayana Press is also available

Mode of Action

- Thickens the cervical mucous and becomes sticky thus it prevents sperm from entering the uterus
- Prevents ovulation
- Makes the endometrium unsuitable for implantation by reducing the number of glands in the endometrium and it becomes thin due to reduction of its size

Effectiveness

Contraceptive injection is 99.7% effective, meaning that at the end of one year of use only 3 in 1000 women become pregnant.

Advantages

- Convenient, requires only four shots per year
- Very effective and reversible
- Amenorrhea (may improve conditions such as menorrhagia, dysmenorrhea, and iron deficiency anemia); may be a desired lifestyle change; can also decrease the risk of dysfunctional menstrual bleeding in women who are overweight

- Lack of estrogen in DMPA makes it appropriate for smokers older than age 35, postpartum breastfeeding women, and others who have contraindications to estrogen
- Reduces the risk of endometrial cancer by up to 80 percent, with continuing protection after discontinuation (WHO eligibility criteria)
- Can decrease the number and severity of crises in patients who have sickle cell anemia (WHO eligibility criteria)
- Can decrease frequency of seizures and does not interact with anti-epileptic medications. (WHO eligibility criteria)

Disadvantages

- Contraceptive and side effects cannot be stopped immediately They may persist for the duration of the effectiveness of the injection, which is at least three months
- Return to fertility after discontinuation is usually delayed between 30 weeks to one year
- Often have side effects, especially bleeding irregularities
- May lower bone density
- No protection against STIs, including HIV/AIDS

Counseling and Screening of Clients

Before giving DMPA for the first time the prospective client's personal, reproductive and medical history to be taken through a thorough counseling session. During the counseling session all about the injectable such as suitable time of taking the injectable, advantages, disadvantages, return of fertility and contraindications should be discussed. Then the physical examination should be performed. Findings of the history and physical examination to be recorded in the client's notes.

Suitable time for giving contraceptive injectable

- The first dose is given within five days of the menstrual period.
- Can be given at any time if it is confirmed that the client is not pregnant e.g., did not have sexual intercourse since her last period or is using another effective family planning method correctly:
  a) Six weeks after childbirth if breastfeeding
  b) Immediately after child birth, if not breastfeeding

- Within 7 days of an abortion
- Within 7 days of a Menstrual Regulation (MR)
- Immediately after discontinuing any modern family planning method
- Client should be informed that injection can be given within 2 weeks before or 4 weeks after the due date in case she is unable to come on the exact calculated date, but do not make this a routine practice

Depo-sub Qprovera 104™ (Depo-subQ)/SAYANA Press

Pfizer Limited developed a newer version of the original DMPA IM (Depo-Provera)- Depo-sub Q Provera 104 TM/SAYANA which is available as single dose pre-filled syringe containing 104 mg medroxyprogesterone acetate (MPA) in 0.65 ml suspension for injection. It contains 30% less hormone than the IM injection (150 mg/ml DMPA sterile aqueous suspension) but provide equivalent safety and efficacy for 13 weeks.

Mode of Action

The mode of action is similar to Depo Provera. SAYANA inhibits the secretion of gonadotropins, which, in turn, prevents follicular maturation and ovulation. The primary mechanism of ovulation suppression also results in endometrial thinning, and these actions produce its contraceptive effect.

Effectiveness

The Pearl Index pregnancy rate in women who were less than 36 years old at baseline, based on cycles in which they used no other contraceptive methods, was 0 pregnancies per 100 women-years of use (lower Pearl index represents a lower chance of getting unintentionally pregnant).

Non-clinical data reveal no special hazard for humans based on conventional studies of safety pharmacology, repeated dose toxicity, genotoxicity and carcinogenic potential. Acceptability trail held in Bangladesh showed no adverse effect in Bangladeshi women.

Advantages

- Administered through subcutaneous injection
- Can be administered at around umbilicus or inner side of the anterior thigh
- 30 percent less hormone than IM injection.

Disadvantages

- Most women Using SAYANA experienced alteration of menstrual bleeding patterns. As Women continued using SAYANA, fewer experienced irregular bleeding and more experienced amenorrhea. Amenorrhea increased progressively over the use of SAYANA. Altered bleeding patterns included intermenstrual bleeding, menorrhagia and metrorrhagia
- Loss of Bone Mineral Density (BMD). Bone loss is greater with increasing duration of use. BMD increases after SAYANA is discontinued and ovarian estrogen production increases
- The other common adverse reactions (1 out of 10 patients) are:
    a. Abdominal pain (cramps)
    b. Weight increase and weight decrease (very common)
    c. Headache
    d. Breast pain/tenderness
    e. Acne, fatigue
    f. Injection site reactions
    g. Depression
    h. Emotional disturbance
    i. Decreased libido
    j. Mood disorder

Return to Fertility

Following a single dose of SAYANA, the cumulative rate of return to ovulation as measured by plasma progesterone was 97.4% (38/39 patients) by one year after administration. After the 14-week therapeutic window, the earliest return to ovulation was one week, and the median time to ovulation was 30 weeks.

Window Period

Window period of SAYANA and Sayana Press is same as that of Depo-Provera (DMPA).

Contraindications for Depo Provera and Sayana Press

- Hypersensitivity to medroxyprogesterone acetate or any of its excipients
- Known or suspected pregnancy
- Known or suspected malignancy of the breast or genital organs
- Undiagnosed vaginal bleeding
- Severe hepatic impairment
- Metabolic bone disease
- Active thromboembolic disease and in patients with current or past history of cerebrovascular disease

Key points (Injectable)

- **Bleeding changes are common but not harmful.** Typically, irregular bleeding for the first several months and then no monthly bleeding
- **Return for injections regularly.** Coming back every 3 months (13 weeks) for DMPA or every 2 months for NET-EN is important for greatest effectiveness
- **Injection can be as much as 4 weeks late for DMPA or 2 weeks late for NET-EN.** Even if later, she may still be able to have the injection
- **Gradual weight gain is common, averaging 1–2 kg per year**
- **Return of fertility is often delayed.** It takes several months longer on average to become pregnant after stopping progestin only injectable

Questions and Answers about Progestin-Only Injectable

1. Can women who could get sexually transmitted infections (STIs) use progestin-only injectable?
   Yes. Women at risk for STIs can use progestin-only injectable. The few studies available have found that women using DMPA were more likely to acquire chlamydia than women not using hormonal contraception. The reason for this difference is not known. There are few studies available on use of NET-EN and STIs. Like anyone else at risk for STIs, a user of progestin-only injectable who may be at risk for STIs should be advised to use condoms correctly every time she has sex. Consistent and correct condom use will reduce her risk of becoming infected with an STI.

2. If a woman does not have monthly bleeding while using progestin-only injectable, does this mean that she is pregnant?
   Probably not, especially if she is breastfeeding. Eventually, most women using progestin-only injectables will not have monthly bleeding. If a woman has been getting her injections on time, she is probably not pregnant and can keep using injectable. If she is still worried after being reassured, she can be offered a pregnancy test, if available, or referred for one. If not having monthly bleeding bothers her, switching to another method may help.

3. Can a woman who is breastfeeding safely use progestin only injectable?

   Yes. This is a good choice for a breastfeeding mother who wants a hormonal method. Progestin-only injectable are safe for both the mother and the baby starting as early as 6 weeks after childbirth. They do not affect milk production.

4. Do DMPA and NET-EN cause abortion?

   No. Research on progestin only injectable finds that they do not disrupt an existing pregnancy. They should not be used to try to cause an abortion. They will not do so.

5. How does DMPA affect bone density?

   During use, DMPA decreases bone mineral density slightly. This may increase the risk of developing osteoporosis and possibly having bone fractures later, after menopause. WHO has concluded that this decrease in bone mineral density does not place age or time limits on use of DMPA.

6. What if a woman returns for her next injection late?

   A woman can have her next DMPA injection even if she is up to 4 weeks late, without the need for further evidence that she is not pregnant. A woman can receive her next NET-EN injection if she is up to 2 weeks late. Some women return even later for their repeat injection, however. In such cases providers need to rule out pregnancy. Whether a woman is late for reinjection or not, her next injection of DMPA should be planned for 3 months later, or her next injection of NET-EN should be planned for 2 months later, as usual.

CHAPTER 6

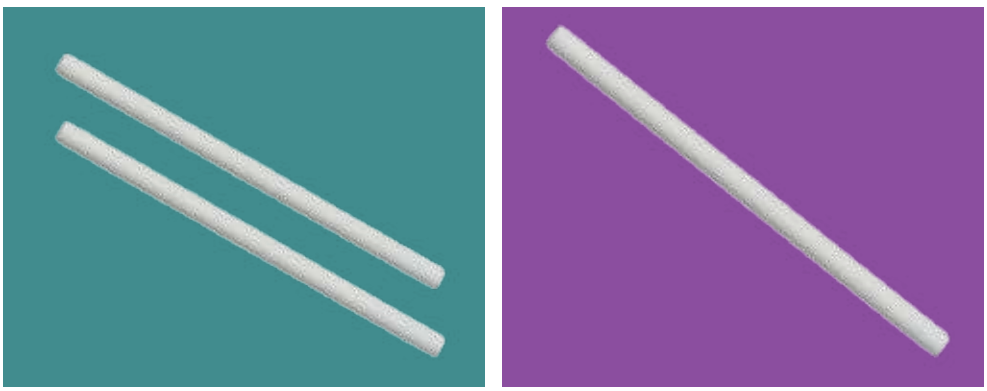
Implants

Contraceptive implants are small flexible rods that are placed just under the skin of the upper arm. After being inserted, they provide pregnancy protection for up to 3 to 5 years, depending on the type of the implant.

Objectives

At the end of reading this chapter the readers will be able to:

- Define implant and describe different types of implants
- State the mode of action, the effectiveness, and the advantage and disadvantage of implants
- Illustrate about perceptions/misperceptions on insertion of implant through counseling
- State the follow-up and removal of the implant



Picture of the two rod and one rod contraceptive Implant

Descriptions of Different Implants

Jadelle:
Jadelle is a two-rod implant and is effective for five years. The two rods contain a total 150 mg of Levonorgestrel having 75 mg in each rod. Another name for this implant is 'Norplant (II)'. The two silicon capsules (silastic tubes) and trocker of Jadelle are available inside a sterile packet.

Implanon:
Implanon is a one-rod implant and is effective for 3 years. It contains 68 mg of etonogestrel as a polymer of ethylene-vinyl acetate inside the capsule. Implanon pre-loaded inside a sterile and disposable applicator.

Nexplanon One:
This is a new brand of Implanon used in Britain. This also contains same amount of etonogestrel hormone. X-Ray can locate its site since this contains barium.

Implanon NXT:
Is a one-rod implant effective for 3 years. It contains barium and is radio-opaque. NXT has just been introduced in Bangladesh.

Mode of action

- Thickens the cervical mucus, making it difficult for sperm to pass through
- Stops ovulation in about half of the menstrual cycles
- Prevents ovulation. Implanon prevents complete ovulation for 3 years continuously

Effectiveness

- First year of use - 0.05 pregnancies per 100 women
- Over 5 years - 1.6 pregnancies per 100 women
- Pregnancy rates are slightly higher among women weighing more than 150 lbs. (70 kg.)

Advantages

- Reversible contraceptive. Can be removed at any time by a trained provider
- Does not interfere with intercourse
- Requires no daily pill intake or schedules for injections
- Effective immediately (within 24 hours after insertion)

- Does not affect the quality and quantity of breast milk
- No estrogen side effects

Disadvantages

- Client cannot start or stop use on her own
- Need trained providers to remove
- Minor surgical procedures required to insert and remove capsules
- Discomfort for several hours to 1 day after insertion
- Does not protect against STIs including HIV/AIDS
- Changes in menstrual bleeding including:
    a. Spotting or bleeding between monthly periods
    b. Amenorrhea
- Weight gain due to change in appetite
- Hair loss or hair growth on the face

Suitable Time for Insertion of Implant

- Within 1-7 days of a menstrual period.
- For women taking COC oral pill, the recommended time is the day after taking either the last white or after completing the iron pills.
- For women using other progesterone-dependent methods
    - The day she stops the mini pills
    - The day an Implant is removed
    - While injectable contraceptive is still active
- For breastfeeding women: immediately after delivery
- Immediately after an abortion.
- Any time if it is confirmed that the client is not pregnant
- It can be used by newlywed women who wants to delay pregnancy

Counseling

Main objective of successful counseling involves providing correct information about different family planning methods through discussion and helping the client choose the correct method. The goal is for the client to make an informed decision. Since implant is a long-acting method and requires minor surgery to apply, therefore, implant client should be provided with correct and detailed information.

Insertion Site of Implant

Implant is inserted sub-cutaneous about 8-10 cm above the elbow, between the biceps and triceps muscles of the non-dominant arm. If the fist is clenched while the arm is flexed, a depression becomes visible between these two muscles. This is the site of insertion of implant.

Follow-up after Implant Insertion

The clients are asked to come to clinics for three follow-ups.

1st follow up: 1 month ± 7 days after insertion
2nd follow-up: 6 months ± 1 month after insertion
3rd follow-up: 12 months ± 1 month after insertion

The clients are advised to come to the health center any time if they have a complication

- Amenorrhea
- Infection at the site of insertion of implant
- Severe lower abdominal pain
- Expulsion of any implant rod
- Excessive menstrual bleeding
- Severe headaches or blurred vision

Removal of the Implant

The location of the implants under the skin has to be confirmed and then a trained provider should attempt to bring out the capsules. The provider has to keep in mind that surrounding the capsules of the implant there would be probability of fibrous tissue developed over the period after insertion.

Key points (Implants)

- **Implants are small flexible rods** that are placed just under the skin of the upperarm
- **Provide long-term pregnancy protection.** Very effective for 3 to 5 years, depending on the type of implant. Immediately reversible
- **Require specifically trained provider to insert and remove.** A woman cannot start or stop implants on her own
- **Bleeding changes are common but not harmful.** Typically, prolonged irregular bleeding over the first year, and then lighter, more regular bleeding, infrequent bleeding, or no bleeding

Questions and Answers about Implants

1. Can implants be left in a woman's arm?
   Leaving the implants in place beyond their effective lifespan is generally not recommended if the woman continues to be at risk of pregnancy. The implants themselves are not dangerous, but as the hormone levels in the implants drop, they become less and less effective. After they lose effectiveness, they may still release a small dose of hormone for several more years, which serves no purpose. If a woman wants to continue using implants, she may have a new implant inserted in the other arm even if the first implant is not removed at that time, for example, if removal services are not immediately available.

2. How long does it take to become pregnant after the implants are removed?
   Women who stop using implants can become pregnant as quickly as women who stop non-hormonal methods. Implants do not delay the return of a woman's fertility after they are removed. The bleeding pattern a woman had before she used implants generally returns after they are removed.

3. Can implants come out of a woman's arm?
   Rarely, a rod may start to come out, most often in the first 4 weeks after insertion. This usually happens because they were not inserted well or because of an infection where they were inserted. In these cases, the woman will see the implants coming out. Some women may have a sudden change in bleeding pattern. If a woman notices a rod coming out, she should start using a backup method and return to the clinic at once.

4. When can a breastfeeding woman start implants?
   In 2015, WHO considered this question and updated its guidance to allow a woman to use progestin-only implants after childbirth regardless of how recently she gave birth. She does not need to wait until 6 weeks postpartum. This change in guidance also applies to progestin-only pills and the LNG-IUD.

5. Should heavy women avoid implants?
   No. Some, but not all studies have found that Jadelle implants became slightly less effective for heavier women after 4 or more years of use. As a precaution, women weighing over 80 kg may

want to have their implants replaced after 4 years for greatest effectiveness. Studies of Implanon have not found that effectiveness decreases for heavier women within the lifespan approved for this type of implant.

6. What should be done if an implant user has an ovarian cyst?
The great majority of cysts are not true cysts but actually fluid-filled structures in the ovary (follicles) that continue to grow beyond the usual size in a normal menstrual cycle. They may cause some mild abdominal pain, but they require treatment only if they grow abnormally large, twist, or burst. These follicles usually go away without treatment.

7. Can a woman work soon after having implants inserted?
Yes, a woman can do her usual work immediately after leaving the clinic as long as she does not bump the insertion site or get it wet.

8. Can young married women, including adolescents, use implants?
Yes. If a young woman wants to use implants, she can. In fact, implants and IUDs can be good methods for young women who want to be sure to avoid pregnancy for a number of years. These are highly effective and long-acting methods. According to the Medical Eligibility Criteria, age is not relevant to implant use. Implant use will not affect a young woman's future fertility, whether or not she has already had children.

9. Can any health service provider at DGFP or DGHS service centers insert implant ?
No. In Bangladesh, only medical doctors are authorized to insert Implant.

CHAPTER 7

Intrauterine Contraceptive Device (IUCD)

The intrauterine device (IUD) or commonly known as IUCD is a small, flexible plastic device inserted into the uterine cavity to prevent pregnancy. There are two types of IUD such as a) Copper bearing IUD and b) Progesterone containing IUD.

Objectives

At the end of reading this chapter the readers will be able to:

- Define intrauterine contraceptive device (IUCD) including Progesterone Containing IUD
- State the mode of action, effectiveness, the advantage and disadvantage of IUCD
- Describe the complications and side-effects of IUCD
- Mention the indication and contraindication to implant of the copper-bearing IUD
- Mention the use of IUD in social and medical conditions

Picture of the intra-uterine contraceptive device (IUCD) available in the Government program.

Mode of action

Copper IUDs work primarily by causing a chemical change in the uterus that damages sperm and ovum before they can meet, in other words, IUDs prevent fertilization.

IUDs that contain progesterone also cause thickening of cervical mucus, which stops the sperm from entering the uterus.

Effectiveness

The IUD is very effective immediately after insertion. The Copper

T380-A is effective for 10 years. Less than one woman out of 100 will become pregnant while using an IUD for contraception. Copper- T 200 is effective for five years which is not available in the Bangladesh Family Planning program.

Advantages

Helps protect against:

- Risks of pregnancy
- Cancer of the lining of the uterus (endometrial cancer)
- Cervical cancer
- Risk of ectopic pregnancy

Disadvantages

Uncommon:

- May contribute to anemia if a woman already has low iron blood stores before insertion and the IUD causes heavier monthly bleeding

Rare

- Pelvic inflammatory disease (PID) may occur if the woman has Chlamydia or Gonorrhea at the time of IUD insertion

Complications

Rare:

- Puncturing (perforation) of the wall of the uterus by the IUD or an instrument used for insertion. Usually heals without treatment.
- Miscarriage, preterm birth, or infection in the rare case that the woman becomes pregnant with the IUD in place.

Side Effects

Some users report the following:

- Changes in bleeding patterns (especially in the first 3 to 6months)

Including:

- Prolonged and heavy monthly bleeding
- Irregular bleeding
- More cramps and pain during monthly bleeding

Suitability of Use of the Copper-Bearing IUD

Safe and suitable for nearly all women. But there are some Medical and Social Eligibility Criteria for IUD/IUCD insertion which are mentioned in Chapter-14 of this Handbook.

Social Conditions

IUD/IUCD cannot be inserted to a client who:

- Are unmarried, widow or divorced
- Have no living child

Medical Conditions

IUD/IUCD cannot be inserted to a client who have:

- Undiagnosed heavy menstrual bleeding
- Endometriosis
- Trophoblastic disease
- Cervical Intraepithelial Neoplasia (CIN)
- VIA +ve
- Cancer of cervix, endometrium and ovary
- Fibroid Uterus and abnormal size and shape of Uterus
- Second and third degree of Uterine Prolapse
- Depth of Uterus less than 6 cm
- Pelvic Inflammatory Disease (PID)
- STI/RTI
- Tuberculosis in lower abdomen
- AIDS

Progesterone Containing IUD/Levonorgestrel Intrauterine Device

What Is the Levonorgestrel-containing Intrauterine Device?

- This is not available in the FP program in Bangladesh but is found in the private sector and used for gynecological reasons. It is a plastic device that steadily releases a small amount of Levonorgestrel each day. (Levonorgestrel is a progestin hormone also used in some contraceptive implants and oral contraceptive pills.)
- A specifically trained health care provider inserts it into a woman's uterus through her vagina and cervix
- Also called the Levonorgestrel-releasing intrauterine system, LNG-IUS, or hormonal IUD
- Marketed under such brand names as Mirena, Liletta, Kyleena, Skyla, and Jaydess
- Works by preventing sperm from fertilizing an egg

Advantages

Helps protect against:

- Risks of pregnancy
- Is used as the treatment of menorrhagia and dysmenorrhea leading to Iron-deficiency anemia

May help protect against:

- Endometrial cancer and Cervical cancer

Other possible physical changes:

- Ovarian cysts

Assessing Women for Risk of Sexually Transmitted Infections

A woman who has Gonorrhea or Chlamydia now should not have an IUD inserted. Having these sexually transmitted infections (STIs) at the time of insertion may increase the risk of pelvic inflammatory disease. These STIs may be difficult to diagnose clinically and reliable laboratory tests are time-consuming, expensive, and sometimes unavailable. Without clinical signs or symptoms and without laboratory testing, the only indication that a woman might already have an STI is whether her behavior or her situation places her at very high individual risk of infection. If this risk for the individual client is very high, she generally should not have an IUD inserted. (Local STI prevalence rates are not a basis for judging individual risk.)

There is no universal set of questions that will determine if a woman is at very high individual risk for STIs. Instead of asking questions, providers can discuss with the client the personal behaviors and the situations in their community that are most likely to expose women to STIs.

Possibly risky situations include

- A sexual partner has STI symptoms such as pus coming from his penis, pain or burning during urination, or an open sore in the genital area
- She or a sexual partner was diagnosed with an STI recently
- She has had more than one sexual partner recently
- She has a sexual partner who has had other partners recently Also, a provider can mention other high-risk situations that exist locally
- Ask if she thinks she is a good candidate for an IUD or would like to consider other contraceptive methods, including other long-acting methods. If, after considering her individual risk, she thinks she is a good candidate, and she is eligible, provide her with an IUD

Key points (Copper bearing IUD)

- **Long-term pregnancy protection.** Shown to be very effective for up to 10 years, immediately reversible
- **Inserted into the uterus by a specifically trained service provider**
- **Little attention is required of the client once the IUD is in place**
- **Bleeding changes are common.** Typically, longer and heavier bleeding and more cramps or pain during monthly bleeding, specially in the first 3 to 6 months

Questions and Answers about IUD

1. Does the IUD cause pelvic inflammatory disease (PID)?
   By itself, the IUD does not cause PID. Gonorrhea and Chlamydia are the primary direct causes of PID. IUD insertion when a woman has Gonorrhea or Chlamydia may lead to PID, however. This does not happen often. When it does, it is most likely to occur in the first 20 days after IUD insertion. It has been estimated that, in a group of clients where STIs are common and screening questions identify half the STI cases, there might be 1 case of PID in every 666 IUD insertion.
2. Can young women and older women use IUDs?
   Yes. There is no minimum or maximum age limit. An IUD should be removed after menopause has occurred—within 12 months after her last monthly bleeding.
3. If a current IUD user has a sexually transmitted infection (STI) or has become at very high individual risk of infection with an STI, should her IUD be removed?
   No. If a woman develops a new STI after her IUD has been inserted, she is not especially at risk of developing PID because of the IUD. She can continue to use the IUD while she is being treated for the STI. Removing the IUD has no benefit and may leave her at risk of unwanted pregnancy. Counsel her on condom use and other strategies to avoid STIs in the future.
4. Does the IUD make a woman infertile?
   No. A woman can become pregnant once the IUD is removed just as quickly as a woman who has never used an IUD, although fertility decreases as women get older. Good studies find no

increased risk of infertility among women who have used IUDs, including young women and women with no children. Whether or not a woman has an IUD, however, if she develops PID and it is not treated, there is some chance that she will become infertile.

5. Can a woman who has never had a baby use an IUD?
   Yes. A woman who has not had children generally can use an IUD, but she should understand that the IUD is more likely to come out because her uterus may be smaller than the uterus of a woman who has given birth.

6. Can the IUD travel from the woman's uterus to other parts of her body, such as her heart or her brain?
   The IUD never travels to the heart, brain, or any other part of the body outside the abdomen. The IUD normally stays within the uterus like a seed within a shell. Rarely, the IUD may come through the wall of the uterus into the abdominal cavity. This is most often due to a mistake during insertion. If it is discovered within 6 weeks or so after insertion or if it is causing symptoms at any time, the IUD will need to be removed by laparoscopic or laparotomic surgery. Usually, however, the out-of-place IUD causes no problems and should be left where it is. The woman will need another contraceptive method.

7. Should a woman have a "rest period" after using her IUD for several years or after the IUD reaches its recommended time for removal?
   No. This is not necessary, and it could be harmful. Removing the old IUD and immediately inserting a new IUD poses less risk of infection than 2 separate procedures. Also, a woman could become pregnant during a "rest period" before her new IUD is inserted.

8. Should antibiotics be routinely given before IUD insertion?
   No, usually not. Most recent research done where STIs are not common suggests that PID risk is low with or without antibiotics. When appropriate questions to screen for STI risk are used and (including the no-touch insertion technique), there is little risk of infection. Antibiotics may be considered in areas where STIs are common and STI screening is limited.

9. Must an IUD be inserted only during a woman's monthly bleeding?

No. For a woman having menstrual cycles, an IUD can be inserted at any time during her menstrual cycle if it is reasonably certain that she is not pregnant. Inserting the IUD during her monthly bleeding may be a good time because she is not likely to be pregnant, and insertion may be easier. It is not as easy to see signs of infection during monthly bleeding, however.

10. Do IUDs increase the risk of ectopic pregnancy?

No. On the contrary, IUDs greatly reduce the risk of ectopic pregnancy. Ectopic pregnancies are rare among IUD users. The rate of ectopic pregnancy among women with IUDs is 12 per 10,000 women per year. The rate of ectopic pregnancy among women in the United States using no contraceptive method is 65 per 10,000 women per year. On the rare occasions that the IUD fails and pregnancy occurs, 6 to 8 of every 100 of these pregnancies are not ectopic. Still, ectopic pregnancy can be life-threatening, and so a provider should be aware that ectopic pregnancy is possible if the IUD fails.

11. How is the LNG-IUD different from the copper-bearing IUD?

The LNG-IUD and the copper-bearing IUD are very similar, but they have important differences. Both the LNG-IUD and the copper-bearing IUD are very effective, but the LNG-IUD is slightly more effective. The LNG-IUD has different side effects from those of the copper-bearing IUD. LNG-IUD users usually experience lighter bleeding (regular or irregular) or no bleeding at all, while copper-bearing IUD users usually have regular but sometimes heavier or longer bleeding. In addition, LNG-IUD users may experience hormonal side effects (for example, headaches), which are not side effects of copper-bearing IUDs. The duration of use is shorter—3 or 5 years for the LNG-IUD, depending on brand, versus 10 years for the copper-bearing IUD. Also, the LNG-IUD costs more than the copper-bearing IUD.

12. How is the LNG-IUD different from other hormonal methods?

The LNG-IUD continuously releases a small amount of hormone into the uterus. Because the hormone is released directly into the uterus, the amount in the bloodstream is lower than with other hormonal methods. Thus, women experience fewer side effects. The LNG-IUD requires no action by the woman once it is inserted, unlike pills that a woman must take every day or injections that are to be inserted into the uterus, while most other hormonal methods come in the form of pills, injections, or implants under the skin.

13. What are the other benefits of the LNG-IUD, besides contraception?

The LNG-IUD is an effective treatment for heavy monthly blood loss. It is the most effective nonsurgical approach for this condition. Also, the LNG-IUD decreases bleeding for women with fibroids. Reduced blood loss can help women with anemia as well. Additionally, the LNG-IUD may help to treat endometriosis, endometrial hyperplasia, endometrial cancer and peri-menopausal menstrual disturbances.

CHAPTER 8

Female Permanent Method

Worldwide female permanent method also known as female sterilization is a safe and effective family planning method for women who have their desired number of children and do not want any more. It is safer, easy and very effective.

Objectives

At the end of reading this chapter the readers will be able to:

- Define female sterilization and classify surgical approaches of the procedure
- List the advantages and disadvantages of female sterilization
- State the complications and reasons of failure after accepting female sterilization
- List the medical and social eligibility criteria for female sterilization in Bangladesh
- Illustrate the Informed Choice and Informed Consent

Female sterilization is also called tubal sterilization, tubal ligation, voluntary surgical contraception, Tubectomy, bi-tubal ligation, tying the tubes, Minilap, and lapro-ligation (when laparoscopic procedure is used).

It works because the fallopian tubes are blocked or cut and ligated. Eggs released from the ovaries cannot move down the tubes, and so they do not meet sperm.

For female sterilization 2 surgical approaches most often used

Laparotomy Tubal Ligation (mini-lap) - A small 2-5 cm horizontal incision is made in the abdomen through which the fallopian tubes are brought out to be cut and ligated or blocked. There are two approaches in mini-laparotomy Based on uterine size:

- **The suprapubic approach:** When the uterus is normal sized (in interval client period or clients not in postpartum period) or after first-trimester abortion, the surgeon approaches the tubes through a cut about one inch above the pubic symphysis
- **The sub-umbilical approach:** After childbirth, when the uterus is enlarged and fallopian tubes are high up in the abdomen, the

surgeon approaches the tubes through an incision just below the umbilicus.

The following staff can perform mini-laparotomy if they have been specifically trained and are competent in the surgical technique and in providing local anesthetic:

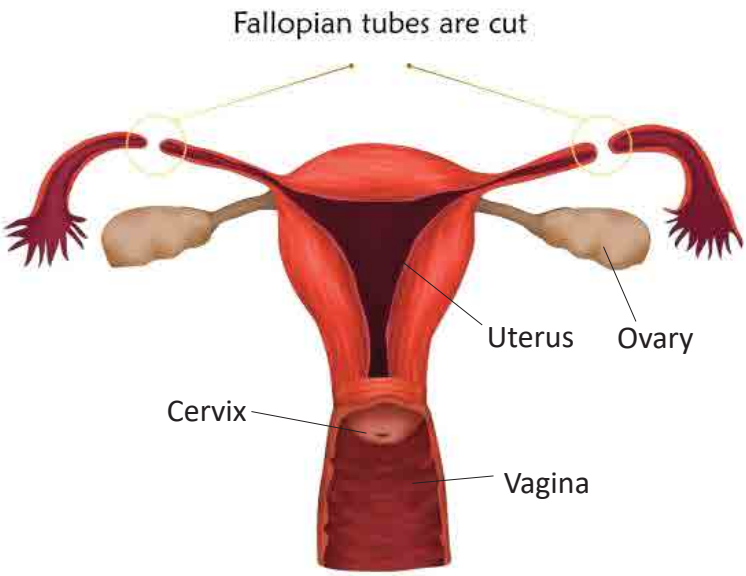
- Specialist doctors
- Non-specialist but trained doctors

There are 2 methods of performing tubal ligation (TL) through mini-lap approach

1. **Finger method:** when the tubesare retrieved using fingers during TL
2. **Tubal hook method:** an instrument called tubal hook used to retrieve the tubes

Laparoscopic tubal ligation can only be performed by trained medical doctors or specialist doctors with experience in abdominal and pelvic surgery

- Laparoscopy involves inserting a long, thin tube containing lenses into the abdomen through a small incision. This laparoscope enables the doctor to reach and block or cut the fallopian tubes in the abdomen



Sketch of the Tubectomy steps performed in the Government and private sector programs

Advantages

- Permanent method
- Very safe and effective
- Becomes effective immediately after the operation
- Can go home 3 to 4 hours after the operation
- No long-term side effects or health risks
- No need for daily intake or uses of any other FP method
- There is no change in sexual and physical fitness, no problem during sex and remains as before
- Can be done immediately after normal delivery or during cesarean section, and it does not affect breast milk secretion
- Although the initial cost is high, but there is no recurrent cost during the remaining time of the reproductive life and hence it is very cost-effective

Disadvantages

Being a permanent method, need to think carefully before making decision.

- After the operation, the living children of the client may die from any reason, so the client may desire to have children, in such cases there is a need for recanalization operation, which is very complex, expensive and not easily available
- Success rate of recanalization is also very low, or there is no certainty of success
- Although a minor operation, there are chances of risks
- There may be pain for a few days after the operation
- Trained doctors and assistants are needed
- Rarely, there are chances of failure, and in such cases chances of ectopic pregnancy is very high
- Does not prevent STDs and AIDS

Reasons of failure after accepting female sterilization

- Auto-recanalization of the two cut ends of the fallopian tubes
- The client may be pregnant before the operation
- Due to faulty or incomplete procedure, e.g., inability to cut one or both tubes, or cutting any other structure by mistake
- In case of laparoscopic method due to faulty surgical procedure, e.g., inability to apply the clip/ring correctly or the clip/ring became loose or slips resulting in return of continuity of the canal of the fallopian tubes

Medical and Social eligibility/non-eligibility criteria for female permanent method in Bangladesh

There is no definite contraindication for female permanent method that means there is no certain medical condition or contraindication that can or should prevent client willing to accept permanent method voluntarily. However, in Bangladesh there are some social conditions which must be taken in to consideration before providing female permanent method and there are some medical conditions, special precautions to be taken during the operation or should wait until recovery from that condition, or refer to any hospital/clinic having better facilities.

Social Conditions

- The client must have two living children and the age of the younger one should be at least one year old
- Post-partum tubal ligation can be done during second caesarian section operation if the first child is alive

Medical Conditions that need special precautions during surgery or should delay until recovery or refer to any hospital/clinic having better facilities are described in Chapter-14 on Contraceptives effectiveness and Medical Eligibility

Timing of female permanent method (Tubectomy) operation

Female permanent method (Tubectomy) is performed during caesarian section operation, after normal delivery, after MR/abortion and during interval period.

1. **Timing of Interval Minilap/Tubectomy**
   - During the first 7 days of regular menstrual periods
   - While using any effective modern contraceptive method correctly and regularly
   - If the client does not have sex after her last menstrual period

2. **Timing of Postpartum female permanent method (Tubectomy)**
   - Within one year after normal delivery
   - Within 48 hours after normal vaginal delivery. Female permanent method (Tubectomy) can also be done 48 hours to 6 days after normal delivery. During this period prophylactic antibiotic should be given
   - World Health Organization(WHO) recommends not to perform female permanent method operation during 7 to 42 days after delivery
   - During caesarian operation

3. **After MR/Abortion**
   - Within 7 days after the MR
   - Within 7 days after an abortion with no complications

Performing female permanent method (tubectomy) operation during abdominal or lower abdomen operations

Tubectomy can be performed during other abdominal or lower abdominal operations in any hospital/clinic having appropriate facilities or during emergency operations if the client has already been counseled and given consent before the operation.

Informed Choice and Informed Consent

Informed Choice:

Informed choice is an individual's well-considered, voluntary decision based on options, information, and understanding.

Informed Consent:

Informed consent is a medical, legal, and rights-based construct whereby clients agree to receive medical treatment, such as surgery for FP method or to take part in a study, ideally as a result of the client's informed choice.

The client must understand the following six points in order to make an informed choice and consent about a surgical contraceptive procedure and must sign/provide thumb impression in an informed consent form:

1. It is a surgical procedure. There are certain risks in undergoing these procedures. The client must be informed about the risks as well as operation procedure, and these must be explained in a way that the client can understand.
2. Temporary contraceptives (Oral pill, Condom, Injectable DMPA, Implant and IUD) are also available to the client and her partner as an alternative choice. In spite of that the client agrees to adopt a permanent method.
3. The client must know that it is a permanent method. The client will not be able to conceive after this operation but retain sexual power and sexual desire.
4. It is mandatory to have full consent of the client before the surgical procedure.
5. The client can decide freely not to adopt this surgical procedure at any time before the operation and it must be ensured that for this no adverse measure would be taken against the client.
6. The wife/husband have not accepted any permanent method before.

7. For monitoring/evaluation of the program, Health and Family Welfare representative/ FP managers and workers can use the name and address of the client and can go the client's residence. Counselor, must ensure that all the above six points are understood by the client; the client signs or provides thumb impression in a consent form.

Complications

These are rare;

- Injury to other organs: It may be injury to urinary bladder and intestine. Attempt repair if minor and have adequate surgical skills. Otherwise, urgently refer to higher health center where Consultant Surgeons are available and have general anesthesia providing facilities
- Infection at operation site manifested by fever, pain, swelling, discharge of pus and abdominal pain
  - Management of infection: Antibiotic and wound drainage if there is pus
- Failure to mobilize tube
- If due to adhesions, do not try to release adhesions as these will ooze significantly
- If one tube is difficult always attempt other side before abandoning procedure
- Limit any attempt to 30 minutes before abandoning procedure (infection rates directly related to time taken for procedure). Give antibiotic cover for any procedure lasting more than 25 minutes

Additional conditions relating to female sterilization:

- **Caution:** Diaphragmatic hernia; kidney disease; severe nutritional deficiencies; previous abdominal or pelvic surgery; concurrent with elective surgery
- **Delay:** Abdominal skin infection; acute respiratory disease (bronchitis, pneumonia); systemic infection or gastroenteritis; emergency surgery (without previous counseling); surgery for an infectious condition; certain postpartum conditions (7 to 41 days after childbirth); severe pre-eclampsia/eclampsia; prolonged rupture of membranes (24 hours or more); fever during or immediately after delivery; sepsis after delivery; severe hemorrhage; severe trauma to the genital tract; cervical or vaginal tear at time of delivery); certain post abortion conditions (sepsis, fever, or severe hemorrhage; severe trauma to the genital tract; cervical or vaginal tear at time of abortion; acute

hematometra); sub-acute bacterial endocarditis; unmanaged atrial fibrillation

- **Special arrangements:** Coagulation disorders; chronic asthma, bronchitis, emphysema, or lung infection; fixed uterus due to previous surgery or infection; abdominal wall or umbilical hernia; postpartum uterine rupture or perforation; post abortion uterine perforation

Key points (Tubectomy/Minilap)

- **Permanent.** Intended to provide life-long, permanent, and very effective protection against pregnancy. Reversal is usually not possible
- **Involves a physical examination and surgery.** The procedure is done by a specifically trained and skilled provider with proper screening of clients through physical and other related examinations
- **No long-term side effects**

Questions and Answers about Female Sterilization

1. Will sterilization change a woman's monthly bleeding or make monthly bleeding stop?

   No. Most research finds no major changes in bleeding patterns after female sterilization. If a woman was using a hormonal method or IUD before sterilization, her bleeding pattern will return to the way it was before she used these methods. For example, women switching from combined oral contraceptives to female sterilization may notice heavier bleeding as their monthly bleeding returns to usual patterns. Note, however, that a woman's monthly bleeding usually becomes less regular as she approaches menopause.

2. Will sterilization make a woman lose her sexual desire? Will it make her fatty?

   No. After sterilization a woman will look and feel the same as before. She can have sex the same as before. She may find that she enjoys sex more because she does not have to worry about getting pregnant. She will not gain weight because of the sterilization procedure.

3. Does a woman who has had a sterilization procedure ever have to worry about getting pregnant again?

   Generally, no. Female sterilization is very effective at preventing pregnancy and is permanent. It is not 100% effective, however. Women who have been sterilized have a slight risk of becoming

pregnant. About 5 out of every 1,000 women become pregnant within a year after the procedure due to auto recanalization of the tubes. The small risk of pregnancy remains beyond the first year and until the woman reaches menopause.

4. Can sterilization be reversed if the woman decides she wants another child?
   Generally, no. Sterilization is intended to be permanent. People who may want more children should choose a different family planning method. Surgery to reverse sterilization is possible for only some women—those who have enough fallopian tube left. Even among these women, reversal often does not lead to pregnancy. The procedure is difficult and expensive, and providers who are able to perform such surgery are hard to find. When pregnancy does occur after reversal, the risk that the pregnancy will be ectopic is greater than usual. Thus, sterilization should be considered irreversible.

5. Is it better for the woman to have female sterilization or for the man to have a vasectomy?
   Each couple must decide for themselves which method is best for them. Both are very effective, safe, permanent methods for couples who know that they will not want more children. Ideally, a couple should consider both methods. If both are acceptable to the couple, vasectomy would be preferable because it is simpler, safer, easier, and less expensive.

6. Does female sterilization increase the risk of ectopic pregnancy?
   No. On the contrary, female sterilization greatly reduces the risk of ectopic pregnancy. Ectopic pregnancies are very rare among women who have had a sterilization procedure. The rate of ectopic pregnancy among women after female sterilization is 6 per 10,000 women per year. On the rare occasions that sterilization fails and pregnancy occurs, Thus, most pregnancies after sterilization failure are not ectopic. Still, ectopic pregnancy can be life-threatening, so a provider should be aware that ectopic pregnancy is possible if sterilization fails.

CHAPTER 9

Male Permanent Method

Male permanent method popularly known as vasectomy is one of the modern methods included in the national family planning program of Bangladesh since 1960s.

Objectives

At the end of reading this chapter the readers will be able to:

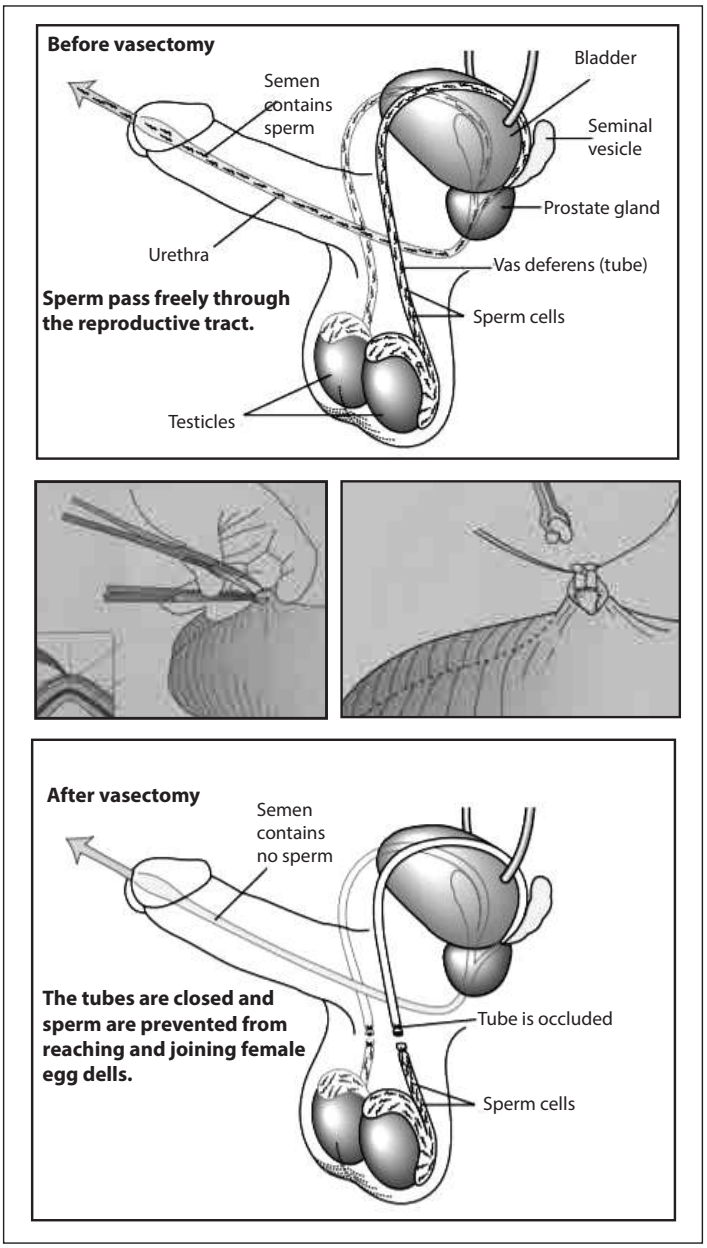
- Define vasectomy and classify techniques of vasectomy operation
- Describe the effectiveness of vasectomy
- State the advantage, disadvantage, the side-effects and complication of vasectomy
- Mention the medical and social eligibility criteria for male permanent method in Bangladesh
- Illustrate the Informed Consent

Vasectomy conventionally performed through incising the scrotal skin remained the approach of this contraceptive. Then the Chinese developed Non-Scalpel Vasectomy (NSV) operation which started in Bangladesh in 1988. In 2001 during the period of 'Strengthening Sterilization Program' NSV was revitalized. Currently NSV has become one of the very popular methods in Bangladesh. It is also called vasectomy and male surgical contraception. It works by closing off each vas deferens, keeping sperm out of semen. Semen without sperm is ejaculated during intercourse and hence there is no chance of pregnancy.

Two techniques of vasectomy operation

- Incisional or Conventional Technique: In this technique, a small incision by a surgical blade in two sides of scrotum or at median raphe, locate and bring the vas deferens through the incision, ties them and cuts the stump. This technique is not used in Bangladesh
- No-scalpel Vasectomy (NSV) Technique: In this technique, surgical blade and knife are not used. One sharp, curve and pointed dissecting forceps is used to make a puncture at median raphe to bring the vas deferens through the puncture, ties them

and cuts the stump. To prevent auto-recanalization and failure of vasectomy, fascial interposition (keep one end of the vas inside the fascia and the other end outside the fascia) is done. There is no need to put stitches in the scrotal skin



Sketch of the Vasectomy steps currently followed in the Family Planning program

Effectiveness

One of the most effective methods but carries a small risk of failure:

- Among the partners of men who have been vasectomized, far less than 1 in every 700 will become pregnant in the first year of adoption of the method. In fact, less than 2 women in every 1,000 may become pregnant. This means that 998 or 999 of 1,000 women whose partners have had vasectomy will not become pregnant
- Sometimes men can have their semen examined at 3 months after the procedure to see if it still contains sperm. If no sperm is found, 1 woman in every 1,000 of these men's partners will become pregnant in the first year
- Among partners of men who do not have their semen examined, pregnancies are slightly more common, but still less than 2 per 1,000 women
- Vasectomy is not fully effective for 3 months after the procedure
  - Some pregnancies occur within the first year because the couple does not use condoms or another effective method consistently and correctly in the first 3 months, before the vasectomy is fully effective
- A small risk of pregnancy remains beyond the first year after the vasectomy and until the man's partner reaches menopause
  - Over 3 years of use: About 4 pregnancies per 1,000 women
- If the partner of a man who has had a vasectomy becomes pregnant, it may be because
  - The couple did not always use another method as a back-up support during the first 3 months after the procedure
  - The provider made a mistake
  - The cut ends of the vas deferens become united and auto recanalized
  - The wife may be pregnant before her husband's vasectomy
  - If fascial interposition is not done

Fertility does not return because vasectomy generally cannot be reversed. The procedure is intended to be permanent. Reversal surgery is difficult, expensive and not available in most areas. When performed, reversal surgery often does not lead to pregnancy.

Protection against sexually transmitted infections (STIs): None

Advantages of Vasectomy

- It is a permanent method
- It is safe and effective
- In NSV technique, skin is not cut so no need to perform stitching and takes only 5-7 minutes
- There is no long-term side effects
- No reduction of sexual and physical strength
- No effect on production of male sex hormone

Disadvantages None

Side Effects None

Complications

Uncommon to very rare:

- Infection at the incision site or inside the incision (rare with conventional incision technique; very rare with no-scalpel technique)

Uncommon to rare:

- Severe scrotal or testicular pain that lasts for months or years

Rare:

- Bleeding under the skin that may cause swelling or hematoma)

Medical and Social eligibility/non-eligibility criteria for male permanent method in Bangladesh

There is no definite contraindication for male permanent method that means there is no certain medical condition or contraindication that can or should prevent client willing to accept permanent method voluntarily. However, in Bangladesh there are some social conditions which must be taken into consideration before providing male permanent method and there are some medical conditions, special precautions to be taken during the operation or should wait until recovery from that condition, or refer to any hospital/clinic having better facilities.

Social Conditions

- The client must be married and have two living children and the age of the younger one should be at least one year old

Medical Conditions

This need special precautions during surgery or should delay until recovery or refer to any hospital/clinic having better facilities are described in Chapter-14 on Contraceptives effectiveness and Medical Eligibility

When to Perform the Procedure

Any time a man requests it (if there is no medical reason to delay).

Ensuring Informed Choice

IMPORTANT: A friendly counselor who listens to a man's concerns, answers his questions, and gives adequate, clear and practical information about the procedure—especially its permanence—will help a man make an informed choice and be a successful and satisfied user, without later regret. Involving his partner in counseling can be helpful but is not necessary or required.

The 6 Points of Informed Consent

Counseling must cover all 6 points of informed consent. The client and the counselor sign an informed consent form. To give informed consent to vasectomy, the client must understand the following points:

1. Temporary contraceptives are also available to the client.
2. Voluntary vasectomy is a surgical procedure. The procedure is considered permanent and probably cannot be reversed.
3. There are certain risks of the procedure as well as benefits. (Both risks and benefits must be explained in a way that the client can understand.)
4. If successful, the procedure will prevent the client from ever having any more children.
5. The client can decide against the procedure at any time before it takes place (without losing rights to other medical, health, or other services or benefits).
6. The procedure does not protect against sexually transmitted infections, including HIV.

Some Conditions relating to Vasectomy

- **No special considerations:** High risk of HIV, asymptomatic or mild HIV clinical disease, sickle cell disease
- **Caution:** Young age; depressive disorders; diabetes; previous scrotal injury; large varicocele or hydrocele; cryptorchidism (may require referral); lupus with positive (or unknown) antiphospholipid antibodies; lupus and on immunosuppressive treatment
- **Delay:** Active STIs (excluding HIV and hepatitis); scrotal skin infection; balanitis; epididymitis or orchitis; systemic infection or gastroenteritis; filariasis; elephantiasis; intra scrotal mass
- **Special arrangements:** Severe or advanced HIV clinical disease may require delay; coagulation disorders; inguinal hernia; lupus with severe thrombocytopenia

Key points (Vasectomy/NSV)

- **Permanent.** Intended to provide life-long, permanent and effective protection against pregnancy. Reversal is usually not possible. Involves a safe, simple surgical procedure
- **3-month delay in taking effect.** The man or couple must use condoms or another contraceptive method as a back-up support for 3 months after the vasectomy because the sperms staying in prostatic cut end of the vas will be alive at least for 3 months and able to cause pregnancy
- **Does not affect male sexual performance.** Vasectomy does not have any effect on male sex hormone secretion and hence no effect on male sexual performance

Questions and Answers about Vasectomy/NSV

1. Will vasectomy make a man lose his sexual ability? Will it make him weak or fatty?
   No. After vasectomy, a man will look and feel the same as before. He can have sex the same as before. His erections will be as hard and last as long as before, and ejaculations of semen will be the same. He can work as hard as before, and he will not gain weight because of the vasectomy.

2. Does a man need to use another contraceptive method after a vasectomy?
   Yes, for the first 3 months. If his partner has been using a contraceptive method, she can continue to use it during this time. Not using another method in the first 3 months is the main cause of pregnancies among couples relying on vasectomy.

3. Is it possible to check if a vasectomy is working?
   Yes. A provider can examine a semen sample under a microscope to see if it still contains sperm. If the provider sees no moving (motile) sperm, the vasectomy is working. A semen examination is recommended at any time after 3 months following the procedure, but it is not essential. If there is less than one motile sperm per 10 high-power fields (less than 100,000 sperm per milliliter) in the fresh sample, then the man can rely on his vasectomy and stop using a backup method for contraception. If his semen contains more moving sperm, the man should continue to use a backup method and return to the clinic monthly for semen analysis. If his semen

continues to have moving sperm, he may need to have a repeat vasectomy.

4. Will the vasectomy stop working after a time?
   Generally, no. Vasectomy is intended to be permanent. In rare cases, however, the cut end of the vas deferens may unite together and auto-recanalized and the man will require a repeat vasectomy.

5. Can a man have his vasectomy reversed if he decides that he wants another child?
   Generally, no. Vasectomy is intended to be permanent. People who may want more children should choose a different family planning method. Surgery to reverse vasectomy is possible for only some men, and reversal often does not lead to pregnancy. The procedure is difficult and expensive, and providers who are able to perform such surgery are hard to find. Thus, vasectomy should be considered irreversible.

6. Is it better for the man to have a vasectomy or for the woman to have female sterilization?
   Each couple must decide for themselves which method is best for them. Both are very effective, safe, permanent methods for couples who know that they will not want more children. Ideally, a couple should consider both methods. If both are acceptable to the couple, vasectomy would be preferable because it is simpler, safer, easier, and less expensive than female sterilization.

7. Should vasectomy be offered only to men who have reached a certain age or have a certain number of children?
   No. There is no justification for denying vasectomy to a man just because of his age, the number of his living children, or his marital status. Health care providers must not impose rigid rules about age, number of children, age of last child, or marital status. Each man must be allowed to decide for himself whether or not he will want more children and whether or not to have a vasectomy.

8. Does vasectomy increase a man's risk of cancer or heart disease later in life?
   No. There is no evidence from large, well-designed studies shows that vasectomy does not increase risks of cancer of the testicles (testicular cancer) or cancer of the prostate (prostate cancer) or heart disease.

CHAPTER 10

Postpartum & Post Abortion Family Planning and LAM

Both mother and baby remain healthy if the mother conceives at least two years after the birth of the previous child. If no family planning method is used, there is a chance for the mother to become pregnant again four weeks after childbirth. This is why women should be counseled about postpartum family planning during antenatal period.

Objectives

At the end of reading this chapter the readers will be able to:

- Define and classify Postpartum Family Planning
- State the importance and benefits of postpartum family planning services
- Describe the Postpartum Family Planning Compendium
- Explain the Postpartum family planning counseling
- Describe the Post abortion/MR/MRM Family Planning Counseling and contraceptive Services
- Define Lactational Amenorrhea Method (LAM) and explain the mode of action

Surveys show that currently worldwide 115 million women have the unmet need of family planning, and are willing to have children later or are not willing to have any children at all yet they are not using any family planning method. In Bangladesh, during postpartum period 60 percent of women have unmet need for family planning during the first year after child birth, which is 5 times higher than the unmet need of other women. (Ref: Family Planning Manual 2017, DGFP, MOHFW). There are many effective family planning methods for immediate postpartum use to prevent untimely and unplanned pregnancies.

It is essential to have opportunity of getting family planning counselling and method during postpartum period to protect health of the mother and the baby. Different recent studies showed that it is possible to prevent 20- 35% maternal and nearly 20% infant mortalities by preventing unplanned pregnancies (Ref: Family Planning Manual 2017, DGFP, MOHFW). In addition, postpartum family planning counseling increases awareness and rate of usage of methods. In recent edition of the guidelines on postpartum and newborn care, World Health Organization (WHO) has identified family planning counseling as the main ingredient of postpartum care.

Postpartum Family Planning

Postpartum contraception is the initiation and use of family planning methods during the first year after delivery. Postpartum period starts immediately after delivery and extends up to one year. Postpartum period can be divided as below:

- Post-placental- within 10 minutes after delivery of placenta. During this period IUD can be done after normal delivery, and during C/section IUD or Tubectomy can be done
- Immediate postpartum- within 48 hours after delivery. During this period progestin-only pill (POP), Implant, IUD, Minilap/ Tubectomy, vasectomy can be performed
- Early postpartum - 48 hours up to 6 weeks. During 48 hours to as interval insertion and after 6 weeks Minilap/Tubectomy can be done
- Extended postpartum - 6 weeks up to one year after birth. During this period all method except combined oral pill (if breastfeeding) can be provided, After 6 months and up to one year any method can be provided as postpartum method

Importance of postpartum family planning services

- Reduces the risk of health of mothers and newborn during postpartum period
- Risk of deteriorating mother's health if she gives birth within 2 years of previous childbirth
- Exclusive breastfeeding is good for the babies immune system and increases the rate of survival
- Creates opportunity for switching from lactational amenorrhea method (LAM) to other methods

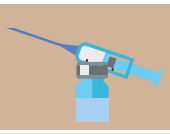
Benefits of family planning methods after giving birth

- Creates special contribution to ensure health of the mother and the baby
- Prevents maternal and child death
- Provides information about family planning to postpartum mothers
- Fulfil unmet needs of family planning
- Keeps the mother safe from risky abortions by preventing unwanted pregnancies
- Creates opportunity to accept family planning services along with delivery services
- Saves money and time from going to health care centers and creates opportunity to receive services.
- Reduces service related cost of the health center and saves time of the service providers

Post Partum Family Planning Compendium

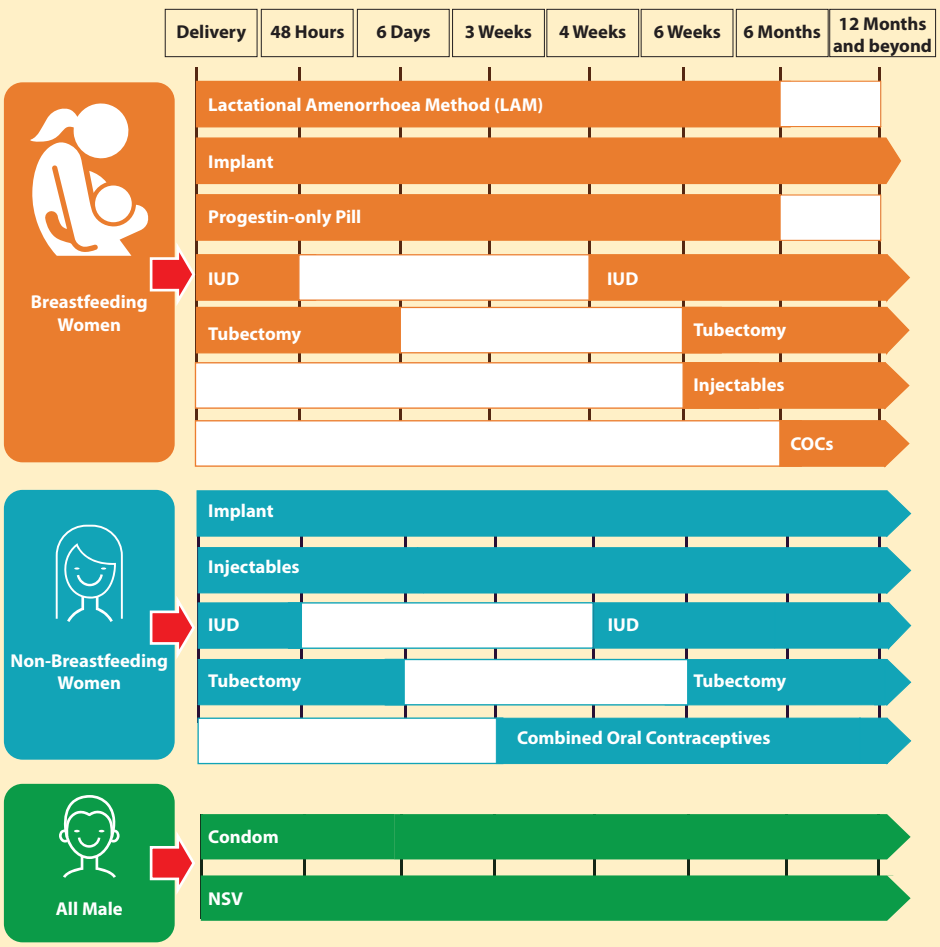
The postpartum period offers multiple opportunities for healthcare providers to assist with family planning decision making. However, there are also many changing factors during the first year after delivery that can affect family planning choices. Given that several different documents have addressed WHO guidance on postpartum family planning, the electronic WHO Postpartum Family Planning Compendium (http://srhr.org/postpartumfp) has been introduced. This resource integrates essential guidance on postpartum family planning for clinicians, program managers and policy makers. The development of the Compendium included consultations with family planning experts, key international stakeholders and web developer.

User Friendly Postpartum Family Planning Methods

Methods		Time of use
	Lactational Ammenoriha Method (LAM)	LAM will be effective only after if the following three conditions are fulfilled: - Mother feeds the child only breast milk - Age of the children should be below 6 months - Menstrual cycle yet not started after child birth
	Implant	- Any time after delivery
	Projestrin Only Oral Pills (Aapon)	- Women who are breastfeeding their children can take projestrin Only Oral Pills after 6 months of delivery
	IUD	- Within 48 hours of normal delivery - After 4 weeks of delivery - During caesarian operation
	Tubectomy	- Within 6 days of normal delivery - After 6 weeks of delivery - During caesarian operation
	Injection	- Mothers who are breastfeeding their child will be eligible for Injection after 6 months of child's age - Mothers who are not breastfeeding their child can take injection after delivery
	Mixed hormonal pills	- Mothers who are breastfeeding their child can take mixed hormonal pills after 6 months of child's age - Mothers who are not breastfeeding their child can take mixed hormonal pills after 3 weeks of delivery
	Condom	- Any time after delivery
	NSV	- Any time after delivery

Postpartum Contraceptive Options

(Timing of Method Initiation and Breastfeeding Considerations)



N.B : Methods can not be initiated during the time bar colored white

Source : World Health Organization PPFP Conpendium 2016

Postpartum family planning counselling

During postpartum family planning counseling providers think about the special needs of the pregnant and postpartum mothers. Information that need to be provided during postpartum family planning counseling are-

- Counseling about the possible timing of return of fertility
- Exclusive breastfeeding for the first six months after childbirth and use lactational amenorrhea method (LAM)
- To initiate a modern family planning method as soon as possible
- Counseling for healthy timing and spacing of pregnancy
- Inquire about having children after appropriate gap or have no more child depending on the number of children
- Increase use of family planning methods
- Integrate family planning with maternal and child health services
- Services integrated with family planning services-
  - Antenatal and postnatal care
  - Care of newborn
  - Immunization

Return of sexuality after childbirth

After childbirth or abortion, sexuality returns very quickly. Mother should be provided the following advices about the sexual relation and safer sex:

- To abstain from sex for at least 6 weeks
- To abstain from sex or have sex with non-infected faithful partner to ensure avoidance of sexually transmitted infections
- If required use condom correctly and consistently
- Avoid any sexual behavior that may transmit sexually transmitted infections

Post-abortion/MR/MRM contraception

Magnitude of the problem

Worldwide each year there are 205 million pregnancies and 40% of them are unplanned. On the other hand 137 million women have unmet need for FP. Worldwide there are 20 million unsafe abortions of which 67,000 women die from unsafe abortion. 13% of all pregnancy-related deaths, and half of all deaths from unsafe abortion are in Asia. According to the Guttmacher Institute report in Bangladesh there are 5.8 million pregnancies, 52% of them are intended and 48% of them are unintended in 2014. On the other hand, 1.9 million women have unmet need for FP. 430,000 MR procedures were performed in health facilities nationwide.

In addition, an estimated 1,194,000 induced abortions were performed in Bangladesh in 2014 and many of these were likely done in unsafe conditions.

Who seek abortion and why?

Women who seek abortion are:

- Married, cohabitating or living in union (65%)
- Interested in using a contraceptive (50%)
- Repeat abortions (20%)
- Conceived from unsocial affairs

Post abortion Family Planning Counseling and Family Planning Services

Need for Post abortion FP services:

- Unsafe abortion is a prime indicator of unmet need for family planning (FP)
- Failure to provide FP is a major contributor to the problem of unsafe abortion

Importance of starting Post-abortion FP immediately:

- Increased risk of repeat pregnancy because
  - Ovulation may occur by day 11 post-abortion period
  - 75% of women will have ovulated within 6 weeks post-abortion

Which method to use postpartum?

All modern FP methods are acceptable provided that:

- Thorough counseling is given to ensure voluntarism and choice
- Clients are screened for precautions

Providing Post-Abortion Contraception

Method	When to Start	Remarks
Hormonal	Immediate	Can be started even if there is infection or anemia
Condom	Immediate	Can be started even if there is infection or anemia
IUD Less than 12 weeks of pregnancy	Immediate or delayed	- If there is infection, delay until it clears - If hemoglobin is less than 7g/dl, delay until it improves - Give an interim method
IUD More than 12 Weeks of pregnancy	4-6 weeks after abortion	Similar to postpartum contraception
Tubal Ligation	Immediate	Clean procedure
	Delayed	If infection or hemoglobin is less than 7g/dl

Lactational Amenorrhea Method (LAM)

LAM is a temporary introductory postpartum method of contraception based on the physiological anovulation experienced by breastfeeding women.

Mode of Action

Breastfeeding causes hormonal suppression of ovulation. LAM's mode of action is based on the normal physiology of breastfeeding and the hormonal response of a woman's body to her infant's suckling her breast. The stimulation of a suckling infant directly affects the hypothalamic-pituitary-ovarian axis.

At each feeding, suckling of the breast sends neural signals to the hypothalamus of the mother. This influences the level and rhythm of gonadotropin releasing hormone (GnRH) secretion. Changes in GnRH and in the mother's pituitary responsiveness affect the release of follicle stimulating hormone (FSH) and luteinizing hormone (LH), the two hormones responsible for follicle development and ovulation. Disorganization of follicular development disrupts the ovaries' ability to develop and release eggs.

Effectiveness

- As commonly used - 2 pregnancies per 100 women in the first 6 months after childbirth
- When used correctly and consistently - 0.5 pregnancies per 100 women in the first 6 months after childbirth

A breastfeeding woman is an acceptor of LAM when the following criteria co-exist

- She is exclusively breastfeeding her infant (i.e., no breastfeeding intervals of more than 4 hours during the day and 6 hours at night)
- She is amenorrhoeic (i.e. her menses has not yet returned)
- Her infant is less than 6 months old

If any of the above is not true, the woman should

- Use any other method for effective family planning that does not interfere with breastfeeding
- Keep breastfeeding her baby, if possible, even while starting to give the baby other food

Contraindications/Precautions

- Based on the WHO Medical Eligibility, no medical condition rules out LAM since it has no known ill-effects on womens' health. However, there are medical conditions that may limit or prevent breastfeeding

- HIV and Hepatitis infections - These infections may be passed to the baby in breastmilk. However, in cases where there may be no other affordable food or infectious diseases kill many babies, the mother should be encouraged to breastfeed
- Those taking medications which may adversely affect the health of the baby. Examples of these are those taking anti-cancer regimen or antibiotics

Advantages

- Effectively prevents pregnancy for at least 6 months and may be longer if a woman keeps breastfeeding often, day and night
- Encourages the best breastfeeding patterns
- Can be used immediately after childbirth
- No need to do anything at time of sexual intercourse
- No direct cost for family planning or for feeding the baby
- No supplies or procedures needed to prevent pregnancy
- No hormonal side effects
- Provides the healthiest food for the baby
- Protects the baby from life-threatening diarrhea
- Helps to protect the baby from life-threatening diseases such as measles and pneumonia by passing the mother's immunities to the baby
- Helps to develop close relationship between mother and baby

Disadvantages

- Reliable only for 6 months
- Frequent breastfeeding may be inconvenient or difficult for some women
- No protection against STIs including HIV/AIDS. If the woman might have or at risk of acquiring an STI, advise her to use condoms consistently
- If the mother has HIV, there is a small chance that breast milk will pass HIV to the baby

Instructions on How to use LAM

A woman who uses LAM should be encouraged to:

- Breastfeed often. An ideal pattern is at least 8 to 10 times a day. No breastfeeding intervals of more than 4 hours during the day and 6 hours at night
- Breastfeed properly. Counsel the woman on breastfeeding technique and diet

- Start complementary foods when the baby is complete 6 months old. Breastfeed before giving other food, if possible

A woman using LAM should be counseled about starting another FP method when:

- Her menstrual periods return (bleeding during the first 56 days or 8 weeks, after childbirth is not considered menstrual bleeding)
- She stops fully or nearly fully breastfeeding
- Her baby is 6 months old
- She no longer wants to rely on LAM as a FP method

Additional conditions relating to the lactational amenorrhea method

- Conditions affecting the newborn that may make breastfeeding difficult: Congenital deformities of the mouth, jaw, or palate; newborns who are small-for-date or premature and needing intensive neonatal care; and certain metabolic disorders
- Medication used during breastfeeding: To protect infant health, breastfeeding is not recommended for women using such drugs as anti-metabolites, bromocriptine, certain anticoagulants, corticosteroids (high doses), cyclosporine, ergotamine, lithium, mood-altering drugs, radioactive drugs and reserpine

Key points (LAM)

- **LAM is a family planning method based on breastfeeding.** Provides contraception for the mother and breastfeeding for the baby
- **Can be effective for up to 6 months after childbirth,** as long as monthly bleeding has not returned and the woman is exclusively breastfeeding
- **Requires breastfeeding often, day and night** (No breastfeeding intervals of more than 4 hours during the day and 6 hours at night)
- Provides an opportunity to offer a woman an ongoing method that she can continue to use after 6 months

Questions and Answers about the Lactational Amenorrhea Method

1. Can LAM be an effective method of family planning?
   Yes. LAM is effective if the woman's monthly bleeding has not returned, she is fully or nearly fully breastfeeding and her baby is less than 6 months old.

2. Can women use LAM if they work away from home?
   Yes. Women who are able to keep their infants with them at work or nearby and are able to breastfeed frequently can rely on LAM as long as they meet all 3 criteria for LAM. Women who are separated from their infants can use LAM if breastfeeds are less than 4 hours apart. Women can also express their breast milk at least every 4 hours, but pregnancy rates may be slightly higher for women who are separated from their infants. One study that assessed use of LAM among working women estimated a pregnancy rate of 5 per 100 women during the first 6 months after childbirth, compared with about 2 per 100 women as LAM is commonly used.

3. What if a woman learns that she has HIV while she is using LAM? Can she continue breastfeeding and using LAM?
   If a woman is newly infected with HIV, the risk of transmission through breastfeeding may be higher than if she was infected earlier, because there is more HIV in her body. The breastfeeding recommendation is the same as for other HIV-infected women, however. HIV-infected mothers and their infants should receive the appropriate ARV therapy, and mothers should exclusively breastfeed their infants for the first 6 months of childbirth and then introduce appropriate complementary foods and continue breastfeeding for the first 12 months of childbirth. At 6 months—or earlier if her monthly bleeding has returned or she stops exclusive breastfeeding—she should begin to use another contraceptive method in place of LAM and continue to use condoms.

CHAPTER 11

Traditional Methods

Traditional methods of contraception have lower efficacies in typical use than modern methods but are valued contraceptive options. The traditional methods have been in use even before human beings started to use the modern methods.

Objectives

At the end of reading this chapter the readers will be able to:

- Define and explain the mechanism of the different traditional methods of contraception
- Define the conditions that influences one of the traditional methods of contraception (fertility awareness method)

The traditional methods of contraception include the lactational amenorrhea method (described in Chapter # 10), coitus interruptus (withdrawal method), fertility awareness method. It is important to acknowledge their role within the range of contraceptive options available to women and their partners.

What Are Fertility Awareness Methods?

- "Fertility awareness" means that a woman knows how to tell when the fertile time of her menstrual cycle starts and ends. (The fertile time is when she can become pregnant.)
- Sometimes called periodic abstinence or natural family planning
- A woman can use several ways, alone or in combination, to tell when her fertile time begins and ends
- Calendar-based methods involve keeping track of days of the menstrual cycle to identify the start and end of the fertile time
  - Examples: Standard Days Method, which avoids unprotected vaginal sex on days 8 through 19 of the menstrual cycle, and calendar rhythm method
- Symptoms-based methods depend on observing signs of fertility
  - Cervical secretions: When a woman sees or feels cervical secretions, she may be fertile. She may feel just a little vaginal wetness
  - Basal body temperature (BBT): A woman's resting body

temperature goes up slightly after the release of an egg (ovulation). She is not likely to become pregnant from 3 days after this temperature rise through the start of her next monthly bleeding. Her temperature stays higher until the beginning of her next monthly bleeding

- Examples: Two Day Method, BBT method, ovulation method (also known as Billings method or cervical mucus method), and sympto-thermal method

Mechanism of action of the fertility awareness methods

Work primarily by helping a woman know when she could become pregnant. The couple prevents pregnancy by avoiding unprotected vaginal sex during these fertile days-usually by abstaining or by using condoms. Some couples use withdrawal, but it is among the least effective methods.

Characteristics of fertility awareness methods

- Help protect against risks of pregnancy
- No side effects
- Improved knowledge of reproductive system and possible closer relationship between couples
- Do not require procedures and usually few supplies
- Allow some couples to adhere to their religious and cultural norms about contraception
- Can be used to identify fertile days by both women who want to become pregnant and women who want to avoid pregnancy
- Require skills and partner's cooperation
- Require motivation
- Offer no protection from STIs, including HIV
- Delay until she has had 3 regular menstrual cycles
- Use caution after monthly bleeding or normal secretions return (usually at least 6 weeks after childbirth)
- Delay until monthly bleeding or normal secretions return (usually < 4 weeks postpartum)
- Delay until she has had one regular menstrual cycle

Conditions relating to fertility awareness methods

A =Accept, C = Caution, D = Delay Condition	Symptoms-based methods	Calendar-based methods
Age: post menarche or perimenopause	C	C
Breastfeeding < 6 weeks postpartum	D	D
Breastfeeding >_6 weeks postpartum	C	D
Postpartum, not breastfeeding	D	D
Post abortion	C	D
Irregular vaginal bleeding	D	D
Vaginal discharge	D	A
Taking drugs that affect cycle regularity, hormones, and/or fertility signs	D/C	D/C
Diseases that elevate body temperature		
Acute	D	A
Chronic	C	A

Withdrawal method/Coitus Interruptus

What Is Withdrawal method?

- Just before ejaculation, the man withdraws his penis from his partner's vagina and ejaculates outside the vagina, keeping his semen away from her external genitalia
- Also known as Coitus Interruptus and "pulling out" the penis from the vagina before ejaculation
- Works by keeping sperm out of the woman's body

Using Withdrawal

- Can be used at any time
- Effectiveness depends on the willingness and ability of the couple to use withdrawal with every act of sexual intercourse

Key points (Traditional methods)

- **Fertility awareness methods require partner's cooperation.** Couple must be committed to abstaining or using another method on fertile days
- **Must stay aware of body changes or keep track of days, according to the rules of the specific method**
- **No side effects or health risks but not reliable as the modern methods**

Questions and Answers about Traditional Methods

1. Can only well-educated couples use fertility awareness methods?
   No. Couples with little or no formal schooling can and do use fertility awareness methods effectively. Couples must be highly motivated, well-trained in their method, and committed to avoiding unprotected sex during the fertile time.

2. Are fertility awareness methods reliable?
   For many couples, these methods provide reliable information about the fertile days. If the couple avoids vaginal sex, or uses condoms or a diaphragm during the woman's fertile time, fertility awareness methods can be effective. Using withdrawal or spermicides during the fertile time is less effective.

3. How likely is a woman to become pregnant if she has sex during monthly bleeding?
   During monthly bleeding the chances of pregnancy are low but not zero. Bleeding itself does not prevent pregnancy and it does not promote pregnancy either. In the first several days of monthly bleeding, the chances of pregnancy are lowest. For example, on day 2 of the cycle (counting from the first day of bleeding as day 1), the chance of getting pregnant is extremely low (less than 1%). As the days pass, the chances of pregnancy increase, whether or not she is still bleeding. The risk of pregnancy rises until ovulation. The day after ovulation the chances of pregnancy begin to drop steadily. Some fertility awareness methods that depend on cervical secretions advise avoiding unprotected sex during monthly bleeding because cervical secretions cannot be detected during bleeding and there is a small risk of ovulation at this time.

4. How many days of abstinence or use of another method might be required for each of the fertility awareness methods?
   The number of days varies based on the woman's cycle length. The average number of days a woman would be considered fertile—and would need to abstain or use another method: Standard Days Method, 12 days 2 Day Method, 13 days sympto-thermal method, 17 days' ovulation method etc.

CHAPTER 12

Emergency Contraception

If a woman ends up having unsafe sex, she requires support so that she does not end up having an unwanted pregnancy. This support is all about emergency contraception.

Objectives

At the end of reading this chapter the readers will be able to:

- Define emergency contraceptive pills (ECP)
- Mention the use of combined oral pills & progesterone only pills for emergency contraception
- Describe the mode of action of emergency contraceptive pills (ECP)
- Define the use of IUD as a means of Emergency Contraception

Emergency Contraceptive Pills (ECPs)

- ECPs are sometimes called "morning after" pills or post-coital contraceptives
- Work by preventing or delaying the release of eggs from the ovaries (ovulation). They do not work if a woman is already pregnant (The copper-bearing IUD also can be used for emergency contraception)

Commonly available brands: Emergency contraceptive pill available in the national family planning program is "Emcon-1". Other brands available in Bangladesh are "Norix",Tulip, Peuli etc.

Types of Emergency Contraceptive Pills available in the Government FP Program

- Progestin-only pills with Levonorgestrel or Norgestrel
- A special ECP product with Levonorgestrel-only or Ulipristal Acetate (UPA)
- Combined oral contraceptives with Estrogen and a Progestin Levonorgestrel, Norgestrel or Norethindrone
- Ulipristal Acetate (Peuli)

Combined oral contraceptives used for emergency contraception

1. **Standard dose COC:** Take 2 pills as soon as possible within 120 hours after unprotected sexual intercourse (1st dose) and take 2 more pills 12 hours after (2nd dose)

OR

2. **Low dose COC:** Take 4 pills as soon as possible within 120 hours after unprotected sexual intercourse (1st dose) and take 4 more pills 12 hours after(2nd dose)

Note

- In 28 days packs, only the first 21 pills are effective as emergency contraception
- Low dose or standard dose COC: each dose contains at least 100 micrograms (0.1mg) ethinyl estradiol and 500 micrograms (0.5mg) Levonorgestrel

Progestin only pills

1. **Postinor 2 (each tablet containing 0.75 mg of Levonorgestrel):** Take 1 pill as soon as possible within 120 hours after unprotected sexual intercourse (1st dose) and take 1 more pill 12 hours later (2nd dose)
2. **Emcon 1 (each tablet containing 1.5 mg of Levonorgestrel):** Take 1 pill as soon as possible within 120 hours after unprotected sexual intercourse (single dose)

Mode of action

- Emergency contraception pills (ECPs) work by preventing fertilization in delaying or inhibiting ovulation
- These pills may also prevent the sperm and egg from uniting by modifying the cervical mucus or by affecting the sperm's ability to bind to the egg
- ECPs do not have any post-fertilization effects such as the prevention of implantation

Effectiveness

- If 100 women each had sex once during the second or third week of the menstrual cycle without using contraception, 8 women would likely become pregnant
- If all 100 women used ulipristal acetate ECPs, less than one woman would likely become pregnant
- If all 100 women used progestin-only ECPs, one woman would likely become pregnant
- If all 100 women used combined estrogen and progestin ECPs, 2 women would likely become pregnant

Indications

ECPs appropriate in many situations and can be used any time a woman is worried that she might become pregnant. For example, after:

- Sexual assault
- Any unprotected sex
- Mistakes using contraception, such as:
  - Condom was used incorrectly, slipped, or broke
  - Couple incorrectly used a fertility awareness method (for example, failed to abstain or to use another method during the fertile days)
  - Man failed to withdraw, as intended, before he ejaculated
  - Woman has had unprotected sex after she has missed 3 or more combined oral contraceptive pills or has started a new pack 3 or more days late
  - IUD has come out of place
  - Woman has had unprotected sex when she is more than 4 weeks late for her repeat injection of DMPA, more than 2 weeks late for her repeat injection of NET-EN, or more than 7 days late for her repeat monthly injection

Contraindications

- ECPs will not affect an implanted pregnancy. It should not be used by women who are already pregnant or may be pregnant. The risk to a human fetus is unknown
- Women who have a chronic medical condition should check with their doctor or health care provider before using ECPs

Advantages

- Reduce the chance of an unwanted pregnancy
- Taking Emergency Contraception is also controlled by the woman
- It is easy to take and has few side effects

- Emergency contraceptive pills do not facilitate sterility or infertility
- Progestin-only Emergency Contraception can be used as many times as a woman needs to use it

Disadvantages

- Emergency contraception pills cannot protect anyone from HIV, Siphilis or such sexually transmitted diseases
- Emergency contraception works only when the pills are taken within the first seventy-two hours after having sexual intercourse without using any kind of protection. The sooner the pills are taken, the better it is. As the hours go by, the effect or the potential of emergency contraception diminishes

Side effects

Some users report the following:

- Changes in bleeding patterns, including:
  - Slight irregular bleeding for 1–2 days after taking ECPs
  - Monthly bleeding that starts earlier or later than expected in the first several days after taking ECPs
- Nausea
- Abdominal pain
- Fatigue
- Headaches
- Breast tenderness
- Dizziness
- Vomiting

Instructions for users

- ECPs should be taken as soon as possible after unprotected sex. The sooner ECPs are taken after unprotected sex, the better they prevent pregnancy
- Can help to prevent pregnancy when taken any time up to 5 days after unprotected sex

Additional conditions relating to emergency contraceptive pills

- Category 1: Repeated use; rape; CYP3A4 inducers (e.g., rifampicin, phenytoin, phenobarbital, carbamazepine, efavirenz, fosphenytoin, nevirapine, oxcarbazepine,primidone, rifabutin, St. John's wort/Hypericum perforatum)
- Category 2: History of severe cardiovascular complications (ischemic heart disease, cerebrovascular attack, or other thromboembolic conditions, and angina pectoralis)

IUD used as a means of Emergency Contraception

- The IUD currently used in the program Cu T-380A can be inserted within 5 days after having unprotected sex
- All of the steps and procedures be followed for insertion of the IUD
- The IUD will work as a means of not allowing the zygote if formed to be implanted in the uterus. The copper of the IUD also working as a spermicide particularly breaking the walls of the spermatozoa

Key points (Emergency contraception)

- **Emergency contraceptive pills (ECPs) and IUD inserted within 5 days help a woman avoid pregnancy after she has an unsafe sex**
- **Emergency contraceptive pill should not be considered as a regular method of contraception**
- **ECPs help to prevent pregnancy when taken up to 5 days after unprotected sex.** The sooner they are taken, the better
- **IUD can be used as a means of emergency contraceptives if inserted whithin 5 days**
- **Emergency contraception does not disrupt an existing pregnancy**
- **Emergency contraception is safe for all women**—even women who cannot use ongoing hormonal contraceptive methods

Questions and Answers about emergency contraceptives

1. How do ECPs work?
   ECPs prevent the release of an egg from the ovary or delay its release by 5 to 7 days. By then, any sperm in the woman's reproductive tract will have died, since sperm can survive there for only about 5 days. Ifovula tion has occurred and the egg was fertilized, ECPs do not prevent implantation or disrupt an already established pregnancy.

2. Do ECPs disrupt an existing pregnancy?
   No. ECPs do not work if a woman is already pregnant.

3. Will ECPs harm the fetus if a woman accidentally takes them while she is pregnant?
   No. Evidence does not show that ECPs will cause birth defects or otherwise harm the fetus if a woman is already pregnant when she takes ECPs or if ECPs fail to prevent pregnancy.

- Can ECPs be used more than once?
  Yes. If needed, ECPs can be taken again, even in the same cycle. A woman who needs ECPs often may want to consider a longer-acting and more effective family planning method.
- Should women use ECPs as a continuing method of contraception?
  A woman can use ECPs whenever she needs them, even more than once in the same cycle. However, relying on ECPs as an ongoing method should not be advised. It is not certain that ECPs, taken every time after sex, would be as effective as regular, continuing methods of contraception. Also, women who often take ECPs may have more side effects. Repeated use of ECPs poses no known health risks. It may be helpful, however, to screen women who take ECPs often for health conditions that can limit use of hormonal contraceptives.
- What oral contraceptive pills can be used as ECPs?
  Many combined (estrogen-progestin) oral contraceptives and progestin-only pills can be used as ECPs. Any pills containing the hormones used for emergency contraception—Levonorgestrel, Norgestrel, Norethindrone and any of these progestin together with estrogen (ethinyl estradiol)—can be used.
- Can a woman who cannot use combined (estrogen-progestin) oral contraceptives or progestin-only pills as an ongoing method still safely use ECPs?
  Yes. This is because ECP treatment is very brief and the dose is small.
- If ECPs failed to prevent pregnancy, does a woman have a greater chance of that pregnancy being an ectopic pregnancy?
  No. Evidence suggests that ECPs do not increase the risk of ectopic pregnancy. Worldwide studies of progestin-only ECPs, including a US Food and Drug Administration review, have not found higher rates of ectopic pregnancy after ECPs failed than are found among pregnancies generally.
- Is IUD safe as an emergency contraceptive?
  Yes. If all of the aseptic steps of inserting an IUD is followed, then there is no possibility of having any problem.

CHAPTER 13

Family Planning Provision

For the actual contraceptive service delivery there are several associated aspects, all that has to be kept in mind for all those who are involved in the Family Planning program. These include the program managers, supervisors, providers and field workers.

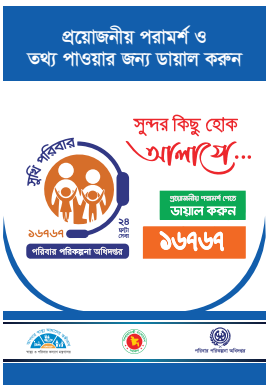
Objectives

At the end of reading this chapter the readers will be able to:

- Do counseling for contraceptive users
- Take measures for prevention and control of infection
- Manage contraceptive and logistic supplies
- Mention the role and importance of male engagement in family planning
- Identify the needs and manage contraceptives in disaster situation

Counseling

Counseling is a vital part of family planning. It helps clients to arrive at an informed choice of their reproductive options, select a contraceptive method and use their chosen method safely and effectively. Counseling is a two-way communication between a client and a service provider that helps the client to make a well informed voluntary decision. Family planning counseling is a process, by which a client can have an open discussion with a service provider regarding family planning methods and be told the advantages and disadvantages of all family planning methods and can voluntarily choose a method of her/his choice.



Principles of Counseling

- Treat all clients with respect
- Tailor the interaction to the individual client's needs, circumstances, and concerns
- Interact with the client, and elicit his or her active participation.
- Avoid information overload
- Provide or refer the client for their preferred FP method or address the client's primary concern
- Use and provide memory aids
- Provide information appropriate to client's identified problems and needs
- Assist clients in making their own voluntary and informed decisions by helping them weigh the options
- Answer questions, address concerns and make sure the client understands all the information they have received

Why counseling is needed?

The main objective of counseling is to help the client to accept a suitable method of contraception after understanding all possible advantages, disadvantages and side effects of each method.

Different Approaches to Counseling

REDI Approach

REDI stands for rapport building, exploration, decision making, and implementing the decision. The REDI framework:

- Emphasizes the client's right and responsibilities for making decisions and carrying them out
- Provides guidelines to help the counselor and client to consider the client's circumstances and social context
- Identifies the challenges a client may face in carrying out their decision
- Helps clients build required skills to address those challenges
- A framework is an aid- a means to an end, not the end in itself. Counseling should be client centered. The REDI framework provides a structure and guidance for talking with clients, so that providers do not miss important steps in the counseling process. However, too often providers focus more on following the steps than on listening to the client and responding to what he or she is saying
- The bottom-line in counseling is to understand what the client needs and then help him or her to meet those needs as efficiently as possible

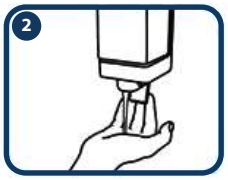
Infection prevention

Infection prevention procedures are simple, effective and inexpensive. Germs (infectious organisms) of concern in the clinic include bacteria (such as staphylococcus), viruses (particularly HIV and Hepatitis B), fungi, and parasites. In the clinic infectious organisms can be found in blood, body fluids with visible blood and tissue. (Feces, nasal secretions, saliva, sputum, sweat, tears, urine and vomit are not considered potentially infectious unless they contain blood.) The organisms can be passed through mucous membranes or broken skin, such as cuts and scratches and by needle sticks with used needles and other puncture wounds. Infectious organisms can pass from clinics to communities when waste disposal is not proper or staff members do not wash their hands properly before leaving the clinic. In COVID-19 context all infection prevention steps shall have to be ensured meticulously.

Basic Rules of Infection Prevention

1. **Wash hands:**
    - Hand washing may be the single most important infection prevention procedure
    - Wash hands before and after examining or treating each client
    - Use clean water and plain soap, and rub hands for at least 20 seconds as shown in the diagram on the next page. Be sure to clean between the fingers and under fingernails. Wash hands after handling soiled instruments and other items or touching mucous membranes, blood or other body fluids. Wash hands before putting on gloves, after taking off gloves, and when ever hands get dirty. Wash hands when you arrive at work, after you use the toilet or latrine, and when you leave work. Dry hands with a paper towel or a clean, dry cloth towel that no one else uses or air-dry
    - If clean water and soap are not available, a hand sanitizer containing at least 60% alcohol can reduce the number of germs on the hands. Sanitizers do not eliminate all types of germs and might not remove harmful chemicals

Wet both hands with water



Apply enough soap to cover all hand surfaces.

Rub hands palm to palm

Right palm over left dorsum with interlaced fingers and vice versa

Palm to palm with fingers interlaced

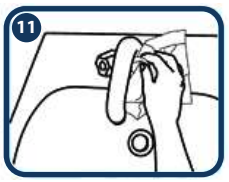
Backs of fingers to opposing palms with fingers interlocked

Rubbing backwards and forwards with clasped fingers of right hand in left palm and vice versa

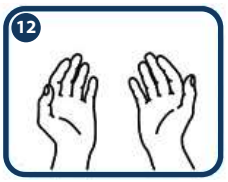
Rotational rubbing of left thumb clasped in right palm and vice versa

Rinse hands with water

Dry thoroughly with a single-use towel



Use towel to turn off faucet



.. and your hands are safe

2. **Process instruments that will be reused:**
   - High-level disinfect or sterilize instruments that touch intact mucous membranes or broken skin.
   - Sterilize instruments that touch tissue beneath the skin

3. **Wear gloves:**
   - Wear gloves for any procedure that risks touching blood, other body fluids, mucous membranes, broken skin, soiled items, dirty surfaces or waste. Wear surgical gloves for surgical procedures such as insertion of implants. Wear single-use examination gloves for procedures that touch intact mucous membranes or generally to avoid exposure to body fluids
   - Change gloves between procedures on the same client and between clients
   - Do not touch clean equipment or surfaces with dirty gloves or bare hands
   - Wear clean utility gloves when cleaning soiled instruments and equipment, handling waste and cleaning blood or body fluid spills

4. **Proper mask wearing by 100% of the service providers, clients and their attendants shall have to be ensured:**
   - This becomes mandatory for everybody (clients and providers) in times when there is an infectious disease like COVID-19 pandemic

5. **Do pelvic examinations only when needed:**
   - Pelvic examinations are not needed for most family planning methods—only for female sterilization, and the IUD. Pelvic examinations should be done only when there is a reason—such as suspicion of sexually transmitted infections etc

6. **For injections, use new auto disable syringes and needles:**
   - Auto-disable syringes and needles are safer and more reliable than standard single-use disposable syringes and needles, and any disposable syringes and needles are safer than sterilizing reusable syringes and needles
   - Cleaning the client's skin before the injection is not needed unless the skin is dirty. If it is, wash with soap and water and dry with a clean towel

7. **Wipe surfaces with chlorine solution:**
   - Wipe examination-tables, bench-tops, and other surfaces that come in contact with broken skin with 0.5% chlorine solution after each client

8. **Dispose off single use equipment and supplies properly and safely:**
   - Use personal protective equipment—goggles, mask, apron, and closed protective shoes— when handling wastes
   - Needles and syringes meant for single use must not be reused. Do not take apart the needle and syringe. Used needles should not be broken, bent or recapped. Put used needles and syringes immediately into a puncture-proof container for disposal. If needles and syringes will not be incinerated, they should be decontaminated by flushing with 0.5% chlorine solution before they are put into the puncture-proof container. The puncture-proof sharps container should be sealed and either burned, incinerated, or deeply buried when three-fourths full
   - Dressings and other soiled solid waste should be collected in plastic bags and within 2 days, burned and buried in a deep pit. Liquid wastes should be poured down a utility sink drain or a flushable toilet, or poured into a deep pit and buried

- Clean waste containers with detergent and rinse with water
- Remove utility gloves and clean them whenever they are dirty and at least once everyday
- Wash hands before and after disposing off soiled equipment and waste

9. Wash linens:

- Wash linens (for example, bedding, caps, gowns, and surgical drapes) by hand or machine and line-dry or machine-dry. When handling soiled linens, wear gloves, hold linens away from your body, and do not shake them

The 4 Steps of Processing Equipment

- Decontaminate to kill infectious organisms: Soak in 0.5% chlorine solution for 10 minutes. Rinse with clean cool water or clean immediately
- Clean to remove body fluids, tissue, and dirt: Wash or scrub with a brush with liquid soap or detergent and water. Avoid bar soap or powdered soap, which can stay on the equipment. Rinse and dry. While cleaning, wear utility gloves and personal protective equipment—goggles, mask, apron, and enclosed shoes
- High-level disinfect or sterilize: High-level disinfect to kill all infectious organisms except some bacterial endospores (a dormant, resistant form of bacteria) by boiling, by steaming or with chemicals. High-level disinfect instruments or supplies that touch intact mucous membranes or broken skin, such as vaginal specula, uterine sounds, and gloves for pelvic examinations. Sterilize to kill all infectious organisms, including bacterial endospores, with a high-pressure steam autoclave, a dry-heat oven, chemicals or radiation. Sterilize instruments such as scalpels and needles that touch tissue beneath the skin. If sterilization is not possible or practical (for example, for laparoscopes), instruments must be high-level disinfected
- Store instruments and supplies to protect them from contamination

Managing contraceptive supplies

Good-quality reproductive health care requires a continuous supply of contraceptives and other commodities. Family planning providers are the most important link in the contraceptive supply chain that moves commodities from the manufacturer to the client.

Logistics Responsibilities in the Clinic

Each supply chain operates according to specific procedures that work in a specific setting, but typical contraceptive logistics responsibilities of clinic staff include these common activities:

- Daily track the number and types of contraceptives dispensed to clients using the appropriate recording form (typically called a "daily activity register")
- Maintain proper storage conditions for all supplies: clean, dry storage, away from direct sun and protected from extreme heat
- Provide contraceptives to clients by "First Expiry, First Out" management of the stock of supplies. "First Expiry, First Out," or FEFO, sees to it that products with the earliest labeled expiry dates are the first products issued or dispensed. FEFO clears out older stock first to prevent waste due to expiry

Regularly (monthly or quarterly, depending on the logistics system)

- Count the amount of each method on hand in the clinic and determine the quantity of contraceptives to order (often done with a clinic pharmacist). This is a good time to inspect the supplies, looking for such problems as products past their expiry date, damaged containers and packages, IUD or implant packaging that has come open or discoloration of condoms
- Work with any community-based distribution agents supervised by clinic staff, reviewing their consumption records and helping them complete their order forms. Issue contraceptive supplies to community-based agents based on their orders
- Report to and make requests of the family planning program coordinator or health supplies officer (typically at the district level) using the appropriate reporting and ordering form or forms
- Receive the ordered contraceptive supplies from the clinic pharmacist or other appropriate person in the supply chain. Receipts should be checked against what was ordered

Quality improvement system in Family Planning

The Family Planning program of Bangladesh has a robust system of ensuring quality of services. It has set up sixty-four (64) Family Planning Clinical Supervision-Quality Improvement Teams (FPCS-QIT) which are deployed at the 64 District HQs. Among these 10 are Regional FPCS-QITs and the other are 54 District FPCS-QITs.

Each of the teams are composed of one Regional/District Consultant, one Senior Staff Nurse, one Computer Operator cum Office Assistant and one Electro-Medical Technician. These FPCS-QITs are mandated for ensuring supervision and clinical monitoring of quality of MCH-FP services throughout Bangladesh. There specific tasks are as following:

- They are highly mobile as there is a vehicle available at disposable for the team
- They are involved in clinical supervision, monitoring and hands on coaching/on the job training on different service delivery facilities at division, district and Upazilla level to strengthen the quality of MCH, LARC and PM service delivery
- Use checklists to assess performing to standard for clinical methods
- Use checklists to assess facilities for providing quality LARC and PMs services
- Develop quick reporting system through the use of IT
- They can quickly address repair and maintenance issues in the facilities for which services sometimes gets hampered

Male Engagement in Family Planning

Male engagement in family planning (FP) improves reproductive health and gender outcomes. In many settings, men play a dominant role in decision-making process, such as family size and the use of contraceptives. Men's critical role in FP decisions, makes it important to include them in FP programming. Programs engaging men can enhance spousal communication, improve gender-equitable attitudes and promote the use of FP.

Male engagement is defined as the process of enabling men and boys to engage positively around FP with their female partners, families and communities. This engagement expands equitable roles for men and women in making FP decisions, promotes women's FP autonomy, challenges unequal power dynamics and transforms harmful gender norms (e.g., that only men make decisions and hold power).

Male engagement promotes mens' and boys' roles as users of contraception, supportive partners and agents of community and social change

- Users of male-controlled and male-cooperative contraceptive methods (e.g., condoms, vasectomy, Standard Days Method)
- Supportive partners for women to discuss, access and use modern FP methods

- Agents of change within their community to challenge barriers and socio-cultural norms that prevent women, men, and couples from using modern FP methods

Men and boys have unique needs and preferences for accessing reproductive health information and services. Directly engaging men in FP can address their concerns about contraception that would otherwise hinder their use of, or support for, FP. Male engagement needs a holistic approach - one that considers the role of women, men and the couples.

Contraceptives in disaster situations

Emergencies modify people's patterns of priorities and response; given a different set of stimuli, people tend to forget or suspend the use of protective measures, such as contraceptives. Furthermore, the climate of emotional tension fosters physical closeness between people, increasing the vulnerability of women to sexual relations that are unwelcome and unprotected against pregnancy or sexually transmitted diseases. Changes also occur in the way in which the individual's emotions and behavior are expressed, often manifested in frustration and anguish which, among other consequences, can spark acts of physical aggression that are sometimes manifested in sexual acts, chiefly against women.

Thus it is necessary to act swiftly and decisively to prevent unplanned, undesired, or even forced pregnancies.

The activities below should be included among the principal points to consider in preparing emergency response measures:

- Identify current needs, conditions, and availability of contraceptive stocks by type and quantity; safe storage mechanisms; expiration dates; and resources for distribution to users. It is necessary to know if supplies are available in neighboring regions of the country which could be drawn on rapidly and sent to consumption points
- Include emergency contraceptives in the supplies to distribute. The interruption or suspension in the supply and regular use of contraceptive methods and the increase in sexual violence incidents make it crucial that women have access to emergency contraceptives. As a starting point, it is recommended to estimate that 1% of women of childbearing age will require them
- Confirm the availability and distribution of latex condoms. The use of condoms should be promoted directly among both men and women in order to contribute effectively to the

prevention of unwanted pregnancies and to reduce the risk of sexually transmitted diseases

- Maintain the ongoing delivery of oral and injectable hormone-based contraceptives and barrier methods to users. It is important to review the physical condition of contraceptive supplies before distributing them
- Promote the use of injectable methods. During the emergency stage, the use of injectable contraceptives (preferably) is recommended, in view of the limited availability of water to clean and disinfect devices and medical equipment utilized for insertion of intrauterine devices, tubal ligations and vasectomies

Importance of multi-sectoral approach in FP

Family Planning world-wide is considered an individual based societal issue. This means that mere promotion of contraception cannot resolve the problems linked with FP. There is the need of whole of the Government, multi-sectoral and complete community engagement. This has to become the basic principle strategy of the country's Family Planning program.

Key points (Family planning provision)

- **Counseling** during pre and post-contraceptive service delivery is very important. Informed consent, particularly for the permanent methods shall have to be ensured
- **Infection prevention should be carefully maintained** for the methods such as Injectable, implant, IUD and sterilization
- Issues like managing **contraceptive supplies, male engagement in Family Planning program and importance of multi-sectoral approach** in FP are all very important aspects

CHAPTER 14

Contraceptive Effectiveness & Medical Eligibility Criteria

For use of the contraceptive methods one of the aspect the users want to know about the effectiveness of the concerned method. The second issue always need to be considered is the medical eligibility criteria or on medical grounds who should be provided the methods with safety.

Objectives

At the end of the learning period the learners will be able to:

- Describe the effectiveness of each of the contraceptives in terms of rates of unintended pregnancies per women
- Mention the WHO defined medical eligibility criteria for using contraceptives

Contraceptive Effectiveness
Rates of Unintended Pregnancies per 100 Women

	First-Year Pregnancy Rate[a] (Trussell & Aiken)[b]		12-Month Pregnancy Rate[c] (Polis et al.)[d]	
Family planning method	Consistent and correct use	As commonly used	As commonly used	Key
Implants	0.1	0.1	0.6	0-0.9
Vasectomy	0.1	0.15		Very effective
Female sterilization	0.5	0.5		
Levonorgestrel IUD	0.5	0.7		1-9
Copper-bearing IUD	0.6	0.8	1.4	Effective
LAM (for 6 months)	0.9[e]	2[e]		
Progestin-only injectable	0.2	4	1.7	Moderately effective
Combined oral contraceptives	0.3	7	5.5	
Progestin-only pills	0.3	7		
Male condoms	2	13	5.4	
Standard Days Method	5	12		
Two Day Method	4	14		
Ovulation method	3	23		
Other fertility awareness methods		15		
Withdrawal	4	20	13.4	
Female condoms	5	21		
No method	85	85		

a. Rates largely from the United States. Data from best available source as determined by authors
b. Trussell J and Aiken ARA, Contraceptive efficacy. In: Hatcher RA et al. Contraceptive Technology, 21st revised edition. New York, Ardent Media, 2018.
c. Rates from developing countries. Data from self-reports in population based surveys.
d. Polis CB et al. Contraceptive failure rates in the developing world: an analysis of Demographic and Health Survey data in 43 countries. New York: Guttmacher Institute, 2016.
e. Source: Hatcher R et al. Contraceptive technology. 20th ed. New York, Ardent Media, 2011.
f. Source: Trussell J. Contraceptive failure in the United States. Contracep tion. 2004:70(2): 89–96.
g. Pregnancy rate for women who have given birth
h. Pregnancy rate for women who have never given birth

Medical Eligibility Criteria for Contraceptive Use

The table on the following pages summarizes the World Health Organization Medical Eligibility Criteria for Contraceptive Use. These checklists are based on the 2-level system for providers with limited clinical judgment (see table below). The checklist questions address conditions in MEC categories 3 or 4 that the woman knows of. The boxes "Using Clinical Judgment in Special Cases" list conditions that are in MEC category 3: The method can be provided if other, more appropriate methods are not available or acceptable to the client, and a qualified provider can carefully assess the specific woman's condition and situation.

Categories for Temporary Methods

Category	With Clinical Judgement	With Limited Clinical Judgement
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	

Categories for Female Sterilization and Vasectomy

Accept (A)	There is no medical reason to deny the method to a person with this condition or in this circumstance.
Caution (C)	The method is normally provided in a routine setting, but with extra preparation and precautions.
Delay (D)	Use of the method should be delayed until the condition is evaluated and/or corrected. Alternative, temporary methods of contraception should be provided.
Special (S)	The procedure should be undertaken in a setting with an experienced surgeon and staff, equipment needed to provide general anesthesia, and other backup medical support. The capacity to decide on the most appropriate procedure and anesthesia support also is needed. Alternative, temporary methods of contraception should be provided if referral is required or there is otherwise any delay.

□ = Use the method
▨ =Do not use the method
Initiation of the method (I)
Continuation of the method (C)
— = Condition not listed; does not affect eligibility for method
NA = Not applicable

Condition	Combined oral contraceptives	Monthly injectable	Combined patch and combined vaginal ring	Progestin-only pills	Progestin-only injectable	Implants	Emergency contraceptive pills*	Copper-bearing intrauterine device	Levonorgestrel intrauterine device	Female sterilization*
PERSONAL CHARACTERISTICS AND REPRODUCTIVE HISTORY										
Pregnant	NA	NA	NA	NA	NA	NA	NA	4	4	D
Age	Menarche to < 40 years			Menarche to < 18 years				Menarche to < 20 years		Young age
	1	1	1	1	2	1	—	2	2	C
	≥40years			18 to 45 years				≥20 years		
	2	2	2	1	1	1	—	1	1	
				> 45						
				1	2	1	—			
Parity										
Nulliparous (has not given birth)	1	1	1	1	1	1	—	2	2	
Parous (has given birth)	1	1	1	1	1	1	—	1	1	
Breastfeeding										
< 6 weeks postpartum	4	4	4	**2**	3[a]	**2**	1	b	**b**	
≥ 6 weeks to<6 months postpartum (primarily breastfeeding)	3	3	3	1	1	1	1	b	b	A
≥6 months postpartum	2	2	2	1	1	1	1	b	b	A
Postpartum (not breastfeeding)										
< 21 days	3	3	3	1	1	1	—	b	b	
With other added VTE risk factors	**4**	**4**	**4**							
21– 42 days	2	2	2	1	1	1	—	b	b	
With other added VTE risk factors	**3**	**3**	**3**							
> 42 days	1	1	1	1	1	1	—	1	1	A
Post abortion										
First trimester	1	1	1	1	1	1	—	1	1	A
Second trimester	1	1	1	1	1	1	—	2	2	
Immediate post-septic abortion	1	1	1	1	1	1	—	4	4	

[a]In settings where pregnancy morbidity and mortality risks are high and this method is one of few widely available contraceptives, it may be made accessible to breastfeeding women immediately postpartum.

[b]Postpartum IUD use: For the copper-bearing IUD, insertion at<48 hours is category 1. For the LNG-IUD, insertion at <48 hours is category 2 for breastfeeding women and category 1 for women not breastfeeding. For all women and both IUD types, insertion from 48 hours to <4 weeks is category 3; >_4 weeks is category 1; and puerperalsepsis, category 4.

= Use the method =Do not use the method Initiation of the method (I) Continuation of the method (C) — = Condition not listed; does not affect eligibility for method NA = Not applicable **Condition**	Combined oral contraceptives	Monthly injectables	Combined patch and combined vaginal ring	Progestin-only pills	Progestin-only injectable	Implants	Emergency contraceptive pills*	Copper-bearing intrauterine device	Levonorgestrel intrauterine device	Female sterilization*
Past ectopic pregnancy	1	1	1	2	1	1	1	1	1	A
History of pelvic surgery	1	1	1	1	1	1	—	1	1	C*
Smoking										
Age < 35 years	2	2	2	1	1	1	—	1	1	A
Age≥35years										
<15 cigarettes/day	3	2	3	1	1	1	—	1	1	A
≥15cigarettes/day	4	3	4	1	1	1	—	1	1	A
Obesity										
≥30kg/m^{2}body mass index	2	2	2	1	1†	1	**1**	1	1	C
Blood pressure measurement unavailable	NA[c]	NA[c]	NA[c]	NA[c]	NA[c]	NA[c]	—	NA	NA	NA
CARDIOVASCULAR DISEASE										
Multiple risk factors for arterial cardiovascular disease (older age, smoking, diabetes, and hypertension)	3/4[d]	3/4[d]	3/4[d]	2	3	2	—	1	2	S
Hypertension										
History of hypertension, where blood pressure CANNOT be evaluated (including hypertension in pregnancy)	3	3	3	2[c]	2[c]	2[c]	—	1	2	NA
Adequately controlled hypertension, where blood pressure CAN be evaluated	3	3	3	1	2	1	—	1	1	C
Elevated blood pressure (properly measured)										
Systolic 140–159 or diastolic 90–99	3	3	3	1	2	1	—	1	1	C[f]
Systolic≥160ordiastolic≥100[e]	4	4	4	2	3	2	—	1	2	S[f]

* For additional conditions relate to emergency contraceptive pills and female sterilization
† From menarche to age<18 years,>_30kg/m2 body mass index is category 2 for DMPA, category 1 for NET-EN.

[c]In settings where pregnancy morbidity an dmortality risks are high and this method is one of few widely available contraceptives, women should not be denied access simply because their blood pressure cannot be measured.

[d]When multiple major risk factors exist, any of which alone would substantially increase the risk of cardiovascular disease, use of the method may increase her risk to an unacceptable level. However, a simple addition of categories for multiple risk factors is not intended. For example, a combination of factors assigned a category 2 may not necessarily warrant a higher category.

[e]Assuming no other risk factors for cardiovascular disease exist, a single reading of blood pressure is not sufficient to classify a woman as hypertensive.

[f]Elevated blood pressure should be controlled before the procedure and monitored during the procedure.

= Use the method

=Do not use the method

Initiation of the method (I)

Continuation of the method (C)

— = Condition not listed; does not affect eligibility for method

NA = Not applicable

Condition	Combined oral contraceptives	Monthly injectables	Combined patch and combined vaginal ring	Progestin-only pills	Progestin-only injectable	Implants	Emergency contraceptive pills*	Copper-bearing intrauterine device	Levonorgestrel intrauterine device	Female sterilization*
Vascular disease	4	4	4	2	3	2	—	1	2	S
History of high blood pressure during pregnancy (where current blood pressure is measurable and normal)	2	2	2	1	1	1	—	1	1	A
Deep venous thrombosis (DVT)/**Pulmonary embolism** (PE)										
History of DVT/PE	4	4	4	2	2	2	*	1	2	A
Acute DVT/PE	4	4	4	3	3	3	*	1	3	D
DVT/PE and on anticoagulant therapy	4	4	4	2	2	2	*	1	2	S
Family history of DVT/PE (first-degree relatives)	2	2	2	1	1	1	*	1	1	A
Major surgery										
With prolonged immobilization	4	4	4	2	2	2	—	1	2	D
Without prolonged immobilization	2	2	2	1	1	1	—	1	1	A
Minor surgery without prolonged immobilization	1	1	1	1	1	1	—	1	1	A
Known thrombogenic mutations (e.g., factor V Leiden, prothrombin mutation; protein S, protein C, and antithrombin deficiencies)[g]	4	4	4	2	2	2	*	1	2	A
Superficial venous disorders										
Varicose veins	1	1	1	1	1	1	—	1	1	A
Superficial venous thrombosis	2	2	2	1	1	1	—	1	1	A
Ischemic heart disease				I / C		I / C			I / C	
Current	4	4	4	2 / 3	3	2 / 3		1	2 / 3	D
History of										C
Stroke (history of cerebrovascular accident)[g]	4	4	4	2 / 3	3	2 / 3		1	2	C
Known dyslipidemias without other known cardiovascular risk factors[h]	**2**	**2**	**2**	2	2	2	—	1	2	A

[g]This condition may make pregnancy an unacceptable health risk. Women should be advised that because of relatively higher pregnancy rates, as commonly used, spermicides, withdrawal, fertility awareness methods, cervical caps, diaphragms, or female or male condoms may not be the most appropriate choice

[h]Routine screening is not appropriate because of the rarity of the condition and the high cost of screening.

= Use the method
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Initiation of the method (I)
Continuation of the method (C)
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NA = Not applicable

Condition	Combined oral		Monthly injectables		Combined patch and		Progestin-only pills		Progestin-only		Implants		Emergency	Copper-bearing		Levonorgestrel		Female sterilization*
Valvular heart disease																		
Uncomplicated	2		2		2		1		1		1		—	1		1		C[i]
Complicated [‡,g]	4		4		4		1		1		1		—	2[i]		2[i]		S*
Systemic lupus erythematosus									I	C				I	C			
Positive (or unknown) antiphospholipid antibodies	4		4		4		3		3	3	3		—	1	1	3		S
Severe thrombocytopenia	2		2		2		2		3	2	2		—	3	2	2		S
Immuno-suppressive treatment	2		2		2		2		2	2	2		—	2	1	2		S
None of the above	2		2		2		2		2	2	2		—	1	1	2		C
NEUROLOGICAL CONDITIONS																		
Headaches[j]	I	C	I	C	I	C	I	C	I	C	I	C				I	C	
Nonmigraines (mild or severe)	1	2	1	2	1	2	1	1	1	1	1	1	—	1		1	1	A
Migraine													2					
Without aura	I	C	I	C	I	C	I	C	I	C	I	C				I	C	
Age < 35	2	3	2	3	2	3	1	2	2	2	2	2	—	1		2	2	A
Age≥35	3	4	3	4	3	4	1	2	2	2	2	2	—	1		2	2	A
With aura, at any age	4	4	4	4	4	4	2	3	2	3	2	3	—	1		2	3	A
Epilepsy	1[k]		1[k]		1[k]		1[k]		1[k]		1[k]		—	1				C
DEPRESSIVE DISORDERS																		
Depressive disorders	1[l]		1[l]		1[l]		1[l]		1[l]		1[l]		—	1		1[l]		C
REPRODUCTIVE TRACT INFECTIONS AND DISORDERS																		
Vaginal bleeding patterns																I	C	
Irregular pattern without heavy bleeding	1		1		1		2		2		2		—	1		1	1	A
Heavy or prolonged bleeding (including regular and irregular patterns)	1		1		1		2		2		2		—	2		1	2	A
Unexplained vaginal bleeding (suspicious for serious condition), before evaluation	2		2		2		2		3		3		—	I: 4	C: 2	I: 4	C: 2	D
Endometriosis	1		1		1		1		1		1		—	2		1		S
Benign ovarian tumors (including cysts)	1		1		1		1		1		1		—	1		1		A
Severe dysmenorrhea	1		1		1		1		1		1		—	2		1		A

*Pulmonary hypertension, atrial fibrillation, history of subacute bacterial endocarditis.

[i]Prophylactic antibiotics are advised before providing the method.

[j]Category for women without any other risk factors for stroke.

[k]If taking anticonvulsants, refer to section on drug interactions.

[l]Certain medications may interact with the method, making it less effective.

= Use the method =Do not use the method Initiation of the method (I) Continuation of the method (C) — = Condition not listed; does not affect eligibility for method NA = Not applicable **Condition**	Combined oral	Monthly injectables	Combined patch and	Progestin-only pills	Progestin-only	Implants	Emergency	Copper-bearing		Levonorgestrel		Female sterilization*
								I	C	I	C	
Gestational trophoblastic disease												
Decreasing or undetectable ß-hCG levels	1	1	1	1	1	1	—	3		3		A
Persistently elevated ß-hCG levels or malignant disease[g]	1	1	1	1	1	1	—	4		4		D
Cervical ectropion	1	1	1	1	1	1	—	1		1		A
Cervical intraepithelial neoplasia (CIN)	2	2	2	1	2	2	—	1		2		A
Cervical cancer (awaiting treatment)	2	2	2	1	2	2	—	4	2	4	2	D
Breast disease												
Undiagnosed mass	2	2	2	2	2	2	—	1		2		A
Benign breast disease	1	1	1	1	1	1	—	1		1		A
Family history of cancer	1	1	1	1	1	1	—	1		1		A
Breast cancer												
Current	4	4	4	4	4	4	—	1		4		C
Past, no evidence of disease for at least 5 years	3	3	3	3	3	3	—	1		3		A
Endometrial cancer[g]	1	1	1	1	1	1	—	4	2	4	2	D
Ovarian cancer	1	1	1	1	1	1	—	3	2	3	2	D
Uterine fibroids												
Without distortion of the uterine cavity	1	1	1	1	1	1	—	1		1		C
With distortion of the uterine cavity	1	1	1	1	1	1	—	4		4		C
Anatomical abnormalities												
Distorted uterine cavity	—	—	—	—	—	—	—	4		4		—
Other abnormalities not distorting the uterine cavity or interfering with IUD insertion (including cervical stenosis or lacerations)	—	—	—	—	—	—	—	2		2		—
Pelvic inflammatory disease (PID)												
Past PID (assuming no current risk factors for STIs)								I	C	I	C	
With subsequent pregnancy	1	1	1	1	1	1	—	1	1	1	1	A
Without subsequent pregnancy	1	1	1	1	1	1	—	2	2	2	2	C

= Use the method
=Do not use the method
Initiation of the method (I)
Continuation of the method (C)
— = Condition not listed; does not affect eligibility for method
NA = Not applicable

Condition	Combined oral contraceptives	Monthly injectables	Combined patch and combined vaginal ring	Progestin-only pills	Progestin-only injectable	Implants	Emergency contraceptive pills*	Copper-bearing intrauterine device		Levonorgestrel intrauterine device		Female sterilization*
Current PID	1	1	1	1	1	1	—	4	2m	4	2m	D
Sexually transmitted infections (STIs)[g]								I	C	I	C	
Current purulent cervicitis, chlamydia, or gonorrhea	1	1	1	1	1	1	—	4	2	4	2	D
Other STIs (excluding HIV and hepatitis)	1	1	1	1	1	1	—	2	2	2	2	A
Vaginitis (including trichomonas vaginalis and bacterial vaginosis)	1	1	1	1	1	1	—	2	2	2	2	A
Increased risk of STIs	1	1	1	1	1	1	—	2/3 n	2	2/3 n	2	A
HIV/AIDS[g]												
								I	C	I	C	
High risk of HIV	1	1	1	1	**2**	1	—	2	2	2	2	A
Asymptomatic or mild HIV clinical disease (WHO stage 1 or 2)	1	1	1	1	1	1	—	2	2	2	2	A
Severe or advanced HIV clinical disease (WHO stage 3 or 4)	1	1	1	1	1	1	—	3	2	3	2	S[o]
Antiretroviral therapy												
Treated with nucleoside reverse transcriptase inhibitors (NRTIs)**	**1**	**1**	**1**	**1**	**1**	**1**	—	2/3 p	**2**	2/3 p	**2**	—
Treated with non-nucleoside reverse transcriptase inhibitors (NNRTIs)												
Efavirenz (EFV) or nevirapine (NVP)	**2**	**2**	**2**	**2**	DMPA **1** NET-EN **2**	**2**	—	2/3 p	**2**	2/3 p	**2**	—
Etravirine (ETR) or rilpivirine (RPV)	**1**	**1**	**1**	**1**	**1**	**1**	—	2/3 p	**2**	2/3 p	**2**	—
Treated with protease inhibitors (PIs)††	**2**	**2**	**2**	**2**	DMPA **1** NET-EN **2**	**2**	—	2/3 p	**2**	**2**	**2**	—

††PIs include: ritonavir-boosted atazanavir (ATV/r), ritonavir-boosted lopinavir (LPV/r), ritonavir boosted darunavir (DRV/r), ritonavir (RTV).

**NRTIs include: abacavir (ABC), tenofovir (TDF), zidovudine (AZT), [l]amivudine (3TC), didanosine (DDI), emtricitabine (FTC), stavudine (D4T).

[m]Treat PID using appropriate antibiotics. There is usually no need to remove the IUD if the client wishes to continue use.

[n]The condition is category 3 if a woman has a very high individual likelihood of STIs.

[o]Presence of an AIDS related illness may require a delay in the procedure.

[p]Condition is category 2 for IUD insertion for asymptomatic or mild HIV clinical disease (WHO stage 1 or 2), category 3 for severe or advanced HIV clinical disease (WHO stage 3 or 4).

CHAPTER 15

Guide for the Teachers

This chapter is a summary to guide/support the teachers in enabling the students to learn about the different contraceptives (modern and traditional).

Objectives

At the end of the orientation of this chapter the teachers will be able to:

- Make students familiar with various aspects of family planning methods including counseling, infection prevention and managing contraceptive supplies
- Prepare themselves for teaching and evaluating their classes on the different contraceptives and overall Family Planning program

Summary of the important areas of discussion related to the different contraceptives

In different lectures, teachers may have briefed about the following areas:

- History of genesis of contraceptive methods
- Significance of contraceptive pills as a popular family planning method
- Mode of action of contraceptive methods
- Different types of contraceptives available in the market
- Benefits and adverse effects of different types of contraceptive methods
- Correct procedure of wearing condoms. Teachers can also show some pictorial on how to use condom and dispose off condoms
- Approaches of counseling and importance of counseling
- Highlight on screening a client before giving an injection, inserting the IUD, inserting the implant
- How to counsel a client and get consent from client before sterilization
- Take students to family planning unit of hospital and let them see the videos of the procedure and observe the procedure on client if available

- Describe the stages of post-partum period
- Describe about the contraceptive methods that can be used after abortion
- Explain how to use all the traditional methods
- Effectiveness of the traditional methods
- When to initiate all the methods.
- Explain the steps of processing equipments
- Basic rules of infection prevention
- How to manage contraceptive supplies in the clinic/facility

Other Teaching Ideas

- Teachers can use powerpoint slides during their lectures
- Distribution of short lecture notes, demonstration with modern specimen and dummy, clinical demonstration, client-provider interaction, group discussion, case study, story sharing, role-play, link sharing etc
- Short video clips on procedure of family planning methods and procedure of MR could be screened, in case of technological availability
- Interactive blogging among students on digital platforms such as WhatsApp, Twitter, Facebook or customized blogging sites developed by the particular Medical Institution

Evaluation

The teachers can evaluate their students through taking Quiz Tests, observation of the discussion held among the students; assessment using checklists etc. They can ask different MCQs to the students as mentioned below:

1. COCs are suitable for whom?

a. Lactating mothers who have baby less than 6 months old
b. Women with high blood pressure
c. Women with cardiovascular disease
d. Newly married couple

2. If a woman misses one pill what will she do?

a. Start a new packet from the next day
b. Use emergency contraceptive pill
c. Take one pill immediately or as soon as remember and take the routine pill at the regular time
d. Must use condom for the rest of the cycle.

3. **POPs increase the risk of ectopic pregnancy.**
   a. True
   b. False

4. **Which one is true?**
   a. Condom protects against STIs, including HIV/AIDS
   b. Condom must be used with each act of intercourse
   c. Condoms are suited for couples who need a back-up method (for example when a pill is missed)
   d. All of the above

5. **Which statement is false?**
   a. Condom protects against ovarian cancer
   b. Condom is easy to use
   c. Condom is suited for partners of breastfeeding women
   d. Condom often helps to mitigate premature ejaculation

6. **Which one is the disadvantage of condom?**
   a. Can tear if exposed to high heat or humidity
   b. Affects the natural hormone cycle
   c. Discomfort for several hours to 1 day after use
   d. Hair loss occurs

7. **DMPA provides protection for how long?**
   a. 3 months
   b. 6 months
   c. 3 years
   d. 5 years

8. **Which one is not the suitable time for giving contraceptive injectable?**
   a. Within 7 days of an abortion
   b. Immediately after discontinuing any modern family planning method
   c. Six weeks after childbirth if breastfeeding
   d. The first dose is given within 14 to 21 days of menstrual period

9. **Which one is the administration site of SAYANA?**
   a. Anterior thigh
   b. Around umbilicus
   c. Above the elbow
   d. a and b

10. **Implants are suitable for whom?**
    a. Breastfeeding woman
    b. Adolescents
    c. Women who does not have children
    d. All of the above

11. Which statement is true for Implant?

a. Effective immediately (within 24 hours after insertion)
b. Does not affect the quality and quantity of breast milk
c. Minor surgical procedures required to insert and remove capsules
d. All of the above

12. Which statement is false for Implant?

a. Women need to take rest for 7 days after having implants inserted
b. Easily reversible
c. Suitable time for insertion is within 1-7 days of a menstrual period
d. Implant is inserted sub-cutaneously about 8-10 cm above the elbow

13. Copper –380A gives protection for how long?

a. 3 months
b. 6 months
c. 2 yrs
d. 10 yrs

14. Who Can Use the Copper-Bearing IUD?

a. Women have at least 1 living children
b. Women having minimum 1 living children who just had an abortion or miscarriage (if no evidence of infection)
c. Women of any age, including adolescents and women over 40 years old with minimum 1 living children
d. All of the above

15. Which statement is false for Copper –T?

Copper –T helps protect against:

a. Cervical cancer
b. Endometrial cancer
c. Breast cancer
d. Ectopic pregnancy

16. For female sterilization how many surgical approaches are available?

a. 2
b. 3
c. 4
d. 5

17. Which one is not a timing of Interval Minilap/Tubectomy?

a. Six weeks after delivery
b. During the first 7 days of regular menstrual periods
c. 7-42 days after delivery
d. If the client does not have sex after her last menstrual period

18. Which is not the alternate name of female sterilization?

a. Tubal sterilization
b. Bi-tubal ligation
c. Minilap
d. Vasectomy

19. When vasectomy is fully effective?

a. Immediately after procedure
b. 7 days after procedure
c. 3 months after procedure
d. 6 months after procedure

20. Which one is a true statement for vasectomy?

a. Vasectomy make a man lose his sexual ability
b. Vasectomy should be offered only to men who have reached a certain age
c. It gives protection against sexually transmitted infections
d. For the first 3 months after vasectomy a man need to use another contraceptive method

21. Which is not the alternate name of male sterilization?

a. NSV
b. Male surgical contraception
c. Minilap
d. Vasectomy

22. Which woman can't accept LAM as a Family Planning method?

a. The mother breastfeeds day and night with no breastfeeding intervals of more than 4 hours during the day and 6 hours during the night
b. The mother's menstrual periods have not returned
c. The baby is less than 6 months old
d. The baby is 1 year old

23. Post-Partum period can be divided into how many stages?

a. 2
b. 3
c. 4
d. 5

24. Which method can be used as a post abortion contraception?

a. OCP
b. IUD
c. Condom
d. All of the above

25. Which one is a traditional method of contraception?

a. Lactational amenorrhea method
b. Fertility awareness method
c. Withdrawal method
d. All of the above

26. Which one is not a criterion of a Calendar Rhythm Method?

a. Keep track of the days of the menstrual cycle
b. Estimate the fertile time
c. Can have unprotected sex during fertile time
d. Update calculations monthly

27. Which one is a false statement?

a. Fertility awareness method is also called periodic abstinence or natural family planning
b. Calendar based methods involve keeping track of days of the menstrual cycle to identify the start and end of the fertile time
c. If a woman has a vaginal infection or another condition that changes cervical mucus, the Two-Day Method will be easy to use.
d. Effectiveness depends on the willingness and ability of the couple to use withdrawal with every act of intercourse

28. REDI approach of counselling stands for what?

a. Repeat, experiment, decision making, and implementing the decision
b. Rapport building, exploration, dialogue, and improve
c. Rapport building, exploration, decision making, and implementing the decision
d. Repeat, exploration, decision making, and importance

29. How many steps are required for processing equipment?

a. 2 steps
b. 3 steps
c. 4 steps
d. 5 steps

30. Which one is a false statement?

a. Infection prevention procedures are simple, effective, and inexpensive
b. The puncture-proof sharps container should be sealed and either burned, incinerated, or deeply buried when three-fourths full
c. For decontamination of equipment soak in 0.5% chlorine solution for 30 minutes
d. Used needles should be broken, and bent

31. Within the perspective of communication what is counselling?

a. This implementing a decision made
b. This is a one way of communication
c. This is rapport building, and two-way communication
d. This is a means of video projection

32. In the Family Planning program what has been set up for ensuring quality?

a. Established FPCS-QI Teams
b. Recruited midwives
c. Handed over service delivery to NGOs
d. Allowed SMC to market contraceptives

33. Which one is correct?

a. For decontamination of equipment soak in soap water for 30 minutes
b. Infection-prevention procedures are very expensive
c. IUD is for young women only
d. Permanent method of contraception vasectomy is for males

(Answers to the above questions are given on the next page)

(Answers to the questions)

Qstn. No	Ans. No	Qstn. No	Ans. No
1	d	2	c
3	b	4	d
5	a	6	a
7	a	8	d
9	d	10	d
11	d	12	a
13	d	14	d
15	c	16	a
17	c	18	d
19	c	20	d
21	c	22	d
23	c	24	d
25	d	26	c
27	c	28	c
29	c	30	c
31	c	32	a
33	d		

Different Links

For the benefit of teachers and even the medical students the following links can be used:

1. https://youtu.be/kXB0OSd4Pj4 IUD
2. https://www.operationalmedicine.org/ed2/Video/iud_insertion_and_removal_video.htm IUD
3. https://www.youtube.com/watch?v=XXRLSndJ-x4Jadelle
4. https://www.youtube.com/watch?v=9EgDfB7ucwk Implant
5. https://www.youtube.com/watch?v=MOaL93xoHRk Vasectomy/NSV
6. https://www.youtube.com/watch?v=eXkZELQYJ3U&has_verified=1 Vasectomy
7. https://www.youtube.com/watch?v=8n1WnkMo8r8 NSV
8. https://www.youtube.com/watch?v=fEVpwZUyB98postpartum BLTL
9. https://www.youtube.com/watch?v=GxRJH2f--P0 Animation BLTL
10. https://www.youtube.com/watch?v=m9Wc0QkMxaU&has_verified=1 laparoscopic tubal ligation

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পরিবার পরিকল্পনা অধিদপ্তর


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World Health
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