

# Preconception Care



"Good Health Before pregnancy"

... for healthier women, infants, and  
families



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# OUTLINE:

- Introduction, Public Health Concern, Definitions
- Goal and Objectives
- Why and when?
- Components of PCC
- Role of Health Staff, procedures,
- Risk Assessment and Interventions
- Promotion and Counseling
- Evidence-based effectiveness in improving pregnancy outcomes

# Introduction:

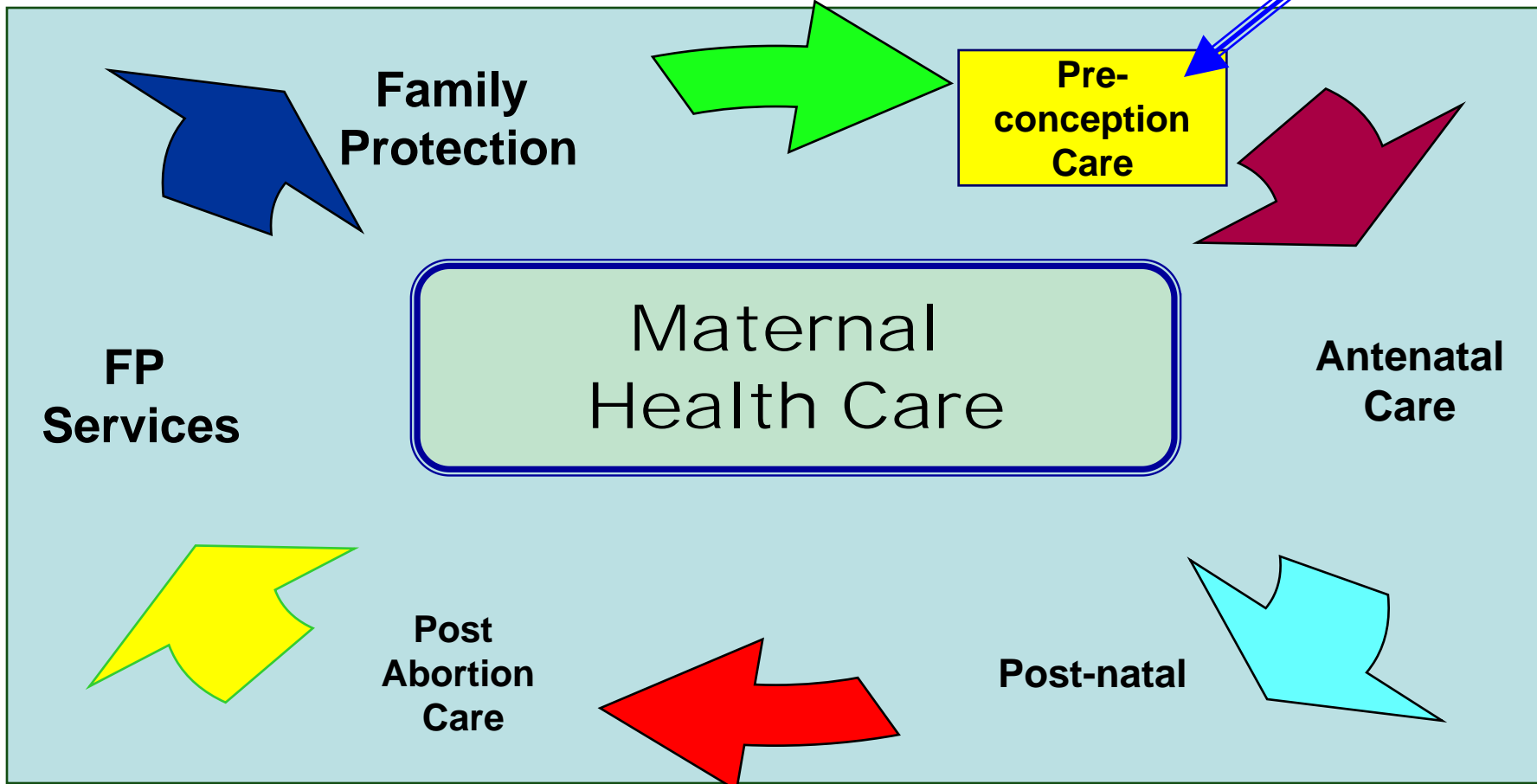
- $\frac{2}{3}$  of the population are women of reproductive age and children below 15
- Investment in health: central to health in general and to socioeconomic development
- Need to achieve the widest coverage and improvement of quality MCH

# Main Goals and Objectives:

➤ **Preventive care to women, infants, children and families in order to:**

→ **Preserve, Protect and Promote health status**

→ **Reduce Maternal, infant and early child mortality, morbidity and disability.**



**Elements of Reproductive Health complement each other and are fully integrated within the PHC setup**

*An improvement in one element can facilitate an improvement in others (vice versa, a deterioration in one element can cause a deterioration in others).*

# Preconception care:

- Critical component of health care for women of reproductive age
- Part of a larger health-care model that results in healthier women, infants, and families
- A Screening Tool for Health Assessment and Risk Detection

# Why Preconception Care is a Public Health Concern?

- Adverse pregnancy outcomes remain a prevalent health problem
- 12% of babies are born premature, 8% with low birth weight
- 3% have major birth defects.
- 31% of women giving birth suffer pregnancy complications.
- Risk factors for adverse pregnancy outcomes remain prevalent among women of reproductive age (*smoking, obesity, teratogenic drugs, preexisting medical conditions (diabetes)*)

# Why Preconception Care?

- ❑ Poor pregnancy outcomes are related to Health status prior to pregnancy
- ❑ Many contributing factors to poor birth outcomes can be managed and controlled before conception.
- ❑ ANC is too late:  
*The fetus is most susceptible to developing certain problems in the first 4–10 weeks after conception, before prenatal care is normally initiated.*
- ❑ Proved to be cost effective in similar settings



# Why Preconception Care?

- ❑ **Provides full information** about Reproductive & General health,
- ❑ **Empowers** women and men to take decision and actively plan for pregnancy to **enter pregnancy** in good health and controlled risk factors.

# Preconception Health Care

- Set of prevention and management interventions that Aim to identify and modify biomedical, behavioral, and social risks to a woman's health or pregnancy outcome
- Act on risk factors before or early in pregnancy in order to have maximal impact.

## Main goal

- To provide health promotion, screening and interventions for women of reproductive age to reduce risk factors that might affect future pregnancies

# Objectives of PCC:

- Further reduction in infant and maternal morbidity & mortality by preventing or minimizing health problems for mother and fetus.
- Timely intervention to ensure optimal health status before pregnancy
- To avoid unwanted pregnancy *as planned pregnancies typically have improved outcomes*
- To reduce hereditary diseases among newborns *through identification of parents with increased genetic risks*
- To reduce the burden and cost of complicated pregnancies and poor outcomes

# Specific objectives of PCC:

- ❖ To prevent and treat infections, in particular RTIs
- ❖ To identify and assist couples who may have infertility problems
- ❖ To improve knowledge, attitudes and behaviors of men and women regarding reproductive health
- ❖ Early Registration for ANC

## *When preconception care can be provided?*

- PCC is a new concept in health in the region.
- The majority of women will not specifically visit the H.C. to access it.
- It can be provided as part of regular preventive care or during visits for other health problems.

## *When preconception care can be provided?*

- ❖ **After discontinuation of FP method**
- ❖ **During outpatient medical consultations in general, and specialized clinics.**
- ❖ **During regular growth monitoring check-ups for infants and children.**
- ❖ **During consultations in the NCD clinic.**
- ❖ **During consultations in the dental clinic.**

# Components of preconception care

- Health promotion**
- Counseling**
- Screening activities**
- Periodic Risk Assessment**
- Intervention and follow-up**

# The Role of Health staff is to:

➡ **Ask**

➡ **Assess**

➡ **Assist**

➡ **Advise**

➡ **Arrange** for preconception health care tailored to the needs of each woman



# PCC activities:

## I. Detailed History taking:

- Assessment of past and current risks that may affect future pregnancy:
  - **medical conditions** often associated with adverse pregnancy outcomes, and
  - **Other conditions** that are known to be contraindications to pregnancy

## Medical conditions often associated with adverse pregnancy outcomes

- HTN (should be brought under control before pregnancy)
- DM (Glycemia level should be controlled well before conception)
- Blood diseases, anemia, thrombo-embolism,
- Epilepsy, and anticonvulsant therapy
- Asthma Severe and poorly controlled
- Thyroid disorders, hypo/hyperthyroidism;

# Medical conditions often associated with adverse pregnancy outcomes

- Infectious diseases: STIs, RTIs, hepatitis, etc.
- Cardio-vascular diseases
- Kidney diseases
- Autoimmune diseases
- Cancer
- Tuberculosis
- Mental health or psychiatric disorders
- Other relevant medical conditions.

# *Medications*

- Review any medication that affects the fetus or the mother, such as anticonvulsants,
- Immunosuppressant, and teratogenic medicines frequently used to treat acne (*Accutane*).

## *II. Review of Reproductive Health history*

- **Previous Obstetric and Gynecological history** with pregnancy, abortion, fertility, birth, and use of FP methods
- **Immunization status:** in particular immunization against rubella and tetanus.
- **Risk of exposure** to hepatitis, HIV, or other STIs, toxoplasmosis, congenital cytomegalovirus (CMV), rubella, chickenpox or other infectious diseases

### *III. Behaviour and lifestyle history*

*Lifestyle and social behaviors should be reviewed to identify risk factors and conditions that might affect future pregnancy*

- Smoking and substance use
- Domestic violence
- Psychological and mental health history
- Dietary habits (vegetarian, weight reduction, diets)
- Underweight / overweight or obesity
- If the client undertakes regular physical exercise.

# Preconception Visit

Comprehensive medical examination

➡ Screening:

1. Measuring weight (BMI)

2. Measuring BP

3. Lab. tests: BGRh factor, Hb testing, RBS, Urine analysis

4. clinical breast examination (CBE) and train clients on breast self-examination (BSE).

5. Oral Health Screening

➡ Risk assessment

# *Genetic screening & counseling*

- Should be undertaken if there is history of:
  - ✓ pregnancy outcomes with autosomal trisomy
  - ✓ other congenital anomalies.

Identified cases with relevant congenital anomalies may need referral to a specialized centre for further investigations and genetic counseling.



# Risk Assessment

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# Interventions

## Intervention and follow-up assessment

- ❑ The first question asked to each woman about her future fertility intentions and the current FP method used.
- ❑ Each woman should make at least 2 PCC visits:
  - the 1<sup>st</sup> one for assessment, counseling and treatment
  - the 2<sup>nd</sup> visit to discuss future plans for pregnancy.

**Additional preconception visits can be arranged if necessary**

## During preconception visit:

- **Check for any undiagnosed or uncontrolled medical problems** and provide treatment where necessary, and recommend the most appropriate time to attempt pregnancy.
- **Make sure that the client is fully aware** of medical condition(s) and medications she is taking, and their impact on pregnancy outcomes.
- **Determine the woman's fertility intentions**, discuss her current contraceptive method and explain the risk of unplanned pregnancy.




## During preconception visit:

- Ask about lifestyle behaviors that affect health: *smoking, alcohol, drugs, psychological problems, domestic violence, nutrition, health conditions of the family and potential risks at home and at work.*
- Review **the immunization status** (tetanus and rubella) and update them if necessary
- Arrange **for laboratory tests**, (urine analysis, Hb, BG Rh factor, RBS, FBS, STIs, and other health conditions.
- Perform **a comprehensive physical examination and risk assessment** and complete management plan during the first visit.

# Risk Assessment

*The concept of risk assessment in PCC is focused on :*

- ⊕ identification of risk factors to women's health or pregnancy outcome and*
  - ⊕ providing preventive and corrective measures to improve outcomes.*
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## Risk Assessment:

According to the presence or absence of risk factors, women are classified into 3 categories :

**Normal Group (N): no identified risk factors for pregnancy. Counseling and folic acid supplementation**

### Alert Group (A)

Identified risk factors: correctable, controllable before conception: DM, HTN, obesity, STDs, hypothyroidism, immunization, Medications, Poor dietary habits, Psychosocial risks

### High Risk Group (H)

**Risk factors could be life threatening cancer, renal failure, status asthmaticus, Uncontrolled severe HTN, advanced cardiovascular and hepatic disease. Advice to avoid pregnancy and provision with a reliable FP method.**

# Promotion of healthy lifestyle

**Health promotion is a process of enabling people (individuals and communities) to increase control over, and to improve their health.**

- Essential component of preventive care,
- integral part of health care provision:  
health education sessions, counseling, and advocacy.

# Issues to be addressed during PCC visit:

- ❖ Promotion of healthy behaviors (*appropriate weight, nutrition, exercise,*
- ❖ Promotion of healthy environment at home and at workplace (*avoiding use and exposure to toxic substances*)
- ❖ FP counseling to avoid unwanted and unplanned pregnancies
- ❖ Cessation of smoking (*cigarettes, shisha*) and avoiding passive smoke
- ❖ Oral health



# Counseling

## Counseling by doctors, nurses and MW

⊕ Aim:

- ❖ to enable women, and husbands, to make informed choices about pregnancy by providing them with information about their health in relation to reproduction and the potential risks involved.

## Main elements of counseling during PCC

- ❑ **Impact of** pre-existing medical disorders on **pregnancy** and the impact of pregnancy on those disorders.
- ❑ **Lifestyle modification** conducive to favorable pregnancy outcome.
- ❑ **Importance of appropriate preconception testing**
  - **Genetic assessment** and genetic risks
  - **Environmental and occupational** conditions and hazards  
*(exposure to chemicals in work settings, and extensive labor efforts).*
  - **Possible barriers** to FP provision and early ANC enrollment

## **Preconception interventions:**

evidence-based effectiveness in improving pregnancy outcomes

- **Folic acid supplementation:** Reduces occurrence of neural tube defects by two thirds.
- **Rubella vaccination:** Provides protection against congenital rubella syndrome.
- **Hepatitis B vaccination for at risk women of reproductive woman:** Prevents transmission of infection to infants and eliminates the risks to the woman of hepatic failure, liver carcinoma, age cirrhosis, and death due to HBV infection.
- **Obesity control:** Reaching a healthy weight before pregnancy reduces the risks of neural tube defects, preterm delivery, diabetes, cesarean section, and hypertensive and thromboembolic disease that are associated with obesity.
- **Diabetes management:** Substantially reduces the threefold increase in prevalence of birth defects among infants of diabetic women.

## **Preconception interventions:**

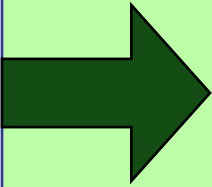
evidence-based effectiveness in improving pregnancy outcomes

- **Hypothyroidism:** Adjusting Levothyroxine dosage early management in pregnancy protects proper neurological development.
- **Oral anticoagulant use management:** Switching off teratogenic anticoagulants (Warfarin) before pregnancy avoids harmful exposure.
- **Antiepileptic drug:** Changing to a less teratogenic treatment (AED) use regimen reduces harmful exposure.
- **Accutane management use:** Preventing pregnancy for women who use Accutane, or ceasing Accutane use before conception, eliminates harmful exposure.
- **Smoking cessation counseling:** Completing smoking cessation before pregnancy can prevent smoking-pregnancy associated preterm birth, low birth weight and other adverse perinatal outcomes.

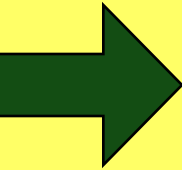
## **Preconception interventions:**

evidence-based effectiveness in improving pregnancy outcomes

- **STD screening and treatment:** Reduces the risk of ectopic pregnancy, infertility, and chronic pelvic pain *associated with Chlamydia trachomatis and Neisseria gonorrhoea*, and also reduces the possible risk of fetal death or physical and developmental disabilities, including mental retardation and blindness.
- **HIV/AIDS screening and treatment:** Allows for timely treatment and provides women (or couples) with additional information that can influence the timing of pregnancy and treatment.



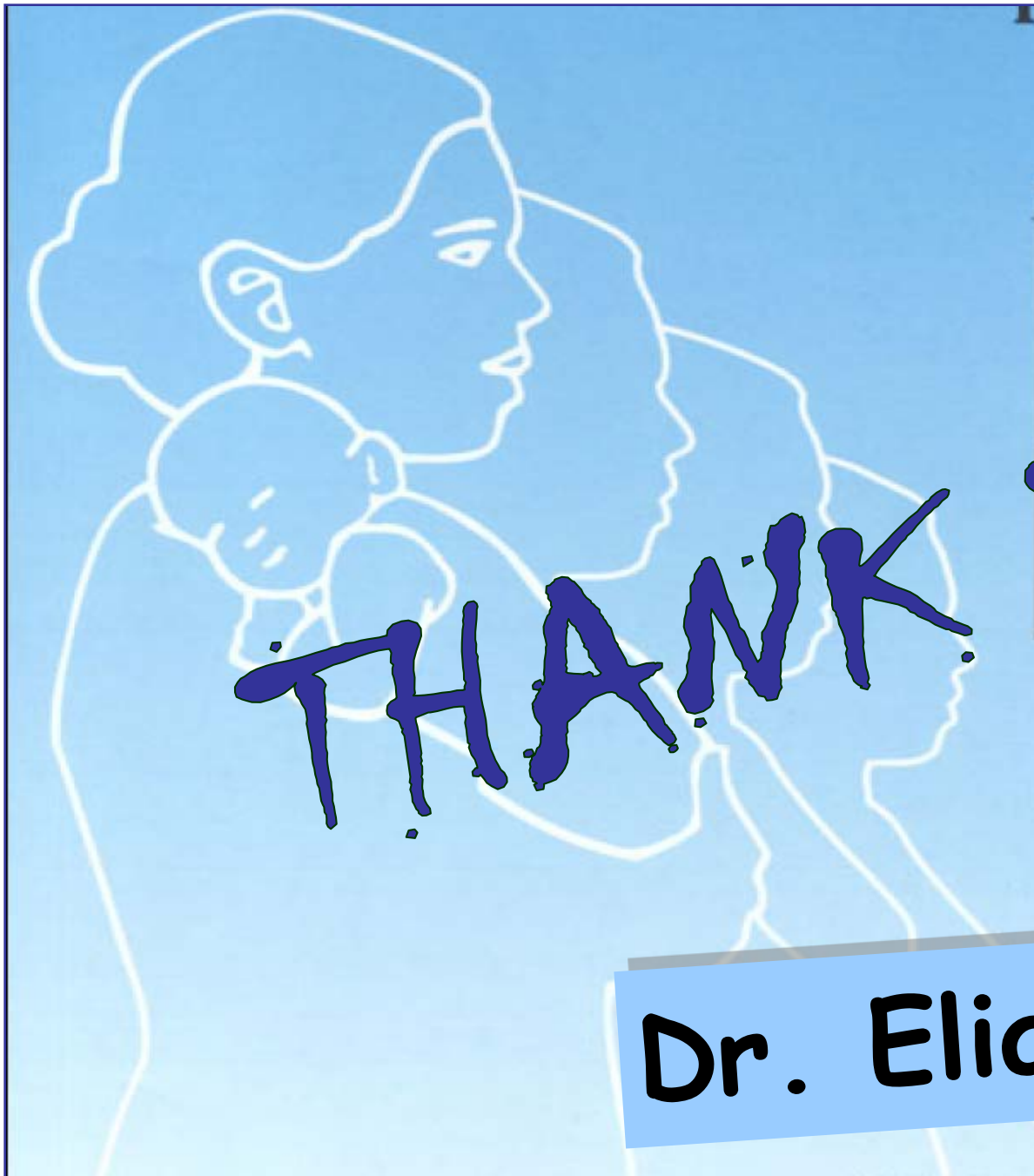
Preconception Care: A Screening Tool for Health Assessment and Risk Detection followed by management and intervention



Improving preconception health requires changes in the knowledge and attitudes and behaviors of persons, families, communities, and institutions

*"Preconception Health Care"*

*Good Health Before pregnancy*



THANK YOU

**Dr. Elias Habash**