

# **CURRENT AFFAIRS**

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# UNFPA RECOGNIZES INDIA'S COMMITMENT TO ADVANCING MATERNAL HEALTH AND FAMILY PLANNING"

# **SYLLABUS MAPPING:**

GS-1- Women and Related Issues-UNFPA Recognizes India's Commitment to Advancing Maternal Health and Family Planning"

# FOR PRELIMS:

What are the key facts of MMR, TFR UNFPA?

# FOR MAINS:

Discuss the significance of UNFPA's recognition of India's maternal health and family planning efforts. What key initiatives has India undertaken, and how have they impacted public health outcomes?

# WHY IN THE NEWS?

The Ministry of Health and Family Welfare is implementing a number of programmes to improve maternal health outcomes toward achieving zero preventable maternal deaths. These include assured quality and respectful maternity care under the Surakshit Matritva Aashwasan Yojana (SUMAN), Pradhan Mantri Surakshit Matritva Abhiyan (PMSMA) and the Midwifery Services Initiative.



#### **KEY FACTS:**

**1. Global Standing:** India is one of the most significant contributors to global maternal mortality, highlighting the urgent need for improved healthcare strategies.

Progress in Numbers: The Maternal Mortality Ratio has decreased significantly from 374 per 100,000 live births in 2016-18 to around 97 per 100,000 live births in recent years, showcasing substantial improvements.
Disparities in Access: There are significant regional disparities in maternal health outcomes, with rural areas often facing higher MMR due to a lack of access to quality healthcare facilities.

**4. Government Spending:** The Indian government has increased its budget for health services, particularly maternal health, emphasizing the importance of comprehensive care during pregnancy and childbirth.

**5.** Focus on Adolescents: Initiatives aimed at educating adolescents about reproductive health and family planning are being emphasized to reduce early pregnancies and improve maternal health outcomes.

**6. Partnerships**: Collaboration with NGOs and international organizations, including UNFPA, has been instrumental in implementing maternal health programs and improving family planning services.

**7. Innovative Solutions:** The use of technology, such as mobile health applications and telemedicine, has been introduced to reach remote populations and provide timely healthcare information and services.

**8.** Awareness and Education: Community-based programs have been launched to educate families about the importance of maternal health, leading to increased utilization of healthcare services.

#### **GOVERNMENT INITIATIVES:**

**1. Janani Suraksha Yojana (JSY):** A cash incentive program encouraging institutional deliveries among pregnant women, particularly in rural areas, to reduce MMR.

**2. National Family Planning Program:** Aimed at providing a range of contraceptive choices, ensuring informed and voluntary decisions for family planning among couples.

**3. Pradhan Mantri Matru Vandana Yojana (PMMVY):** A maternity benefits program providing financial assistance to pregnant women to ensure proper nutrition and healthcare during pregnancy.

**4. Maternal Health Program:** An initiative focusing on antenatal care, skilled birth attendance, and postnatal care to enhance overall maternal health outcomes.

**5. ASHA** (Accredited Social Health Activist) Program: Mobilizes community health workers to promote maternal health services, educate families, and facilitate access to healthcare facilities.

**6. Swasthya Sathi Scheme:** A health insurance program that aims to provide coverage for maternal health services, reducing the financial burden on families.

**7. Digital Health Initiatives:** Integration of technology in maternal health services, including the use of mobile apps and telemedicine to provide education and consultations for expectant mothers.

**8. State-specific Initiatives:** Various states have launched tailored programs addressing local maternal health challenges, demonstrating a decentralized approach to healthcare delivery.

#### **ARTICLE 47 OF THE INDIAN CONSTITUTION:**

Directive Principles of State Policy: Article 47 emphasizes the state's responsibility to raise the level of nutrition and standard of living and to improve public health, particularly among vulnerable populations.
Focus on Maternal and Child Health: This article mandates the government to prioritize maternal and

child health as part of its broader health initiatives, reflecting the importance of these issues in national policy.

#### **MEASURES TO IMPLEMENT ARTICLE 47:**

**1. Integrated Healthcare Services:** Establishing comprehensive healthcare systems that provide maternal and child health services as part of general healthcare to ensure accessibility and continuity of care.

**2.** Public Health Campaigns: Launching nationwide campaigns to raise awareness about maternal health, nutrition, and the importance of antenatal and postnatal care, targeting both urban and rural populations.

**3.** Strengthening Infrastructure: Investing in healthcare infrastructure, particularly in rural and underserved areas, to provide essential services like maternal health clinics and birthing centres.

**4. Capacity Building for Healthcare Providers**: Continuous training and skill development for healthcare workers to ensure high-quality maternal care and adherence to best practices.

**5. Monitoring and Evaluation Systems:** Establishing robust systems to monitor maternal health indicators, evaluate the effectiveness of existing programs, and identify areas for improvement.

#### **REASONS FOR PERSISTENTLY HIGHER MMR:**

**1. Lack of Skilled Birth Attendants:** Many births occur at home without the presence of skilled healthcare professionals, increasing the risk of complications during delivery.

**2.** Delay in Seeking Care: Women may delay seeking medical help due to a lack of awareness, fear, or stigma associated with maternal health issues, leading to worsening conditions.

**3. Limited Access to Emergency Services:** Insufficient availability of emergency obstetric care in rural areas hampers timely intervention for complications such as haemorrhage or eclampsia.

**4. Transportation Challenges:** Poor transportation infrastructure can delay access to healthcare facilities, particularly in emergencies, resulting in adverse maternal health outcomes.

**5. Health System Inequities:** Disparities in healthcare access based on caste, gender, and economic status can prevent marginalized groups from receiving adequate maternal care.

**6. Inadequate Postnatal Care:** Limited focus on postnatal care leaves many women without essential followup services after childbirth, which is crucial for identifying and managing complications.

**7. Infectious Diseases:** A high prevalence of communicable diseases (e.g., malaria, tuberculosis) can complicate pregnancies and increase the risk of maternal mortality.

**8. Family Planning:** High rates of unintended pregnancies due to inadequate access to contraceptive services can lead to higher maternal health risks, especially among young and undernourished women.

#### WAY FORWARD:

 Enhancing Training and Education: Implement ongoing training programs for healthcare providers to ensure they are equipped with the latest knowledge and skills in maternal and child health care.
Telemedicine and Digital Health Solutions: Expand the use of telemedicine and mobile health applications to provide remote consultations and health education, particularly in rural areas with limited access to healthcare.

**3.** Improving Data Collection and Monitoring: Establish robust data systems for monitoring maternal health indicators, enabling evidence-based decision-making and targeted interventions.

**4. Nutrition Support Programs:** Implement comprehensive nutrition programs for pregnant and postpartum women to address malnutrition and improve health outcomes.

**5.** Public Awareness Campaigns: Launch campaigns to educate the public about maternal health, family planning, and the importance of institutional deliveries, thereby encouraging positive behaviour changes.

**6. Involvement of Private Sector:** Engage private healthcare providers in maternal health initiatives to enhance service delivery and expand access to quality care.

**7. Financial Incentives and Insurance Schemes:** Expand health insurance coverage and financial incentives for families to encourage them to seek institutional care during childbirth.

**8.** Focus on Mental Health: Integrate mental health services into maternal care to address issues such as postpartum depression and anxiety, ensuring holistic support for mothers.

#### **CONCLUSION:**

In conclusion, improving maternal health in India demands sustained commitment from both the government and international organizations. An integrated approach that links maternal health initiatives with overall health system strengthening is crucial. Establishing robust monitoring and evaluation mechanisms will help identify gaps and drive improvements. Engaging communities and prioritizing marginalized populations will enhance accessibility and effectiveness. By investing in education, training, and infrastructure, India can foster a supportive environment for maternal health, leading to better outcomes for women and their families.

#### **PRELIMS QUESTION:**

#### **Q.** Consider the following statements:

Statement I: Article 47 mandates the establishment of maternal health insurance schemes.

**Statement II:** Article 47 emphasizes the state's responsibility to improve public health and nutrition standards.

# Which one of the following is correct in respect of the above statements?

A. Both Statement I and Statement II are correct, and Statement II is the correct explanation for Statement I B. Both Statement I and Statement II are correct, and Statement II is not the correct explanation for Statement I

C. Statement I is correct, but Statement II is incorrect

D. Statement I is incorrect, but Statement II is correct

Answer: D

# **MAINS QUESTION:**

Q. Discuss the impact of the National Health Mission (NHM) on maternal health outcomes in India. How does the mission align with the goals set forth by UNFPA, and what measures can be further implemented to enhance its effectiveness?

(250 words, 15 marks)

# Ritik singh

# PRELIMS BITS: ELIMINATION OF TRACHOMA AND MICRO RNA.

# SYLLABUS MAPPING:

General studies: Economic and Social Development-Sustainable Development, Poverty, Inclusion, Demographics, Social Sector Initiatives. FOR PRELIMS:

What is Trachoma, its nature, etc.?

#### WHY IN THE NEWS?

The World Health Organization has recognized India for successfully eliminating trachoma as a public health issue. India joins Nepal and Myanmar in the WHO South-East Asia Region, and 19 other countries globally have previously achieved this feat.

#### **KEY FACTS ABOUT TRACHOMA**

**Cause:** Trachoma is an eye disease caused by the bacterium Chlamydia trachomatis.

**Transmission:** The infection spreads through contaminated fingers, objects, and flies that contact with discharge from infected individuals' eyes or noses.

**Risk Factors:** Environmental factors contributing to trachoma include poor hygiene, overcrowded living conditions, and limited access to water and sanitation facilities.

**Complications:** Repeated infections can lead to scarring of the eyelids, causing trachomatous trichiasis, where eyelashes turn inward and touch the eyeball. This painful condition can lead to visual impairment and blindness if untreated.

**Elimination Strategy:** The WHO recommends the SAFE strategy (Surgery, Antibiotics, Facial cleanliness, and Environmental improvement) to eliminate trachoma as a public health problem.

**Global Progress:** India is one of 20 WHO-validated countries for eliminating trachoma, joining nations such as Benin, Cambodia, China, and others.

**Neglected Tropical Diseases Road Map:** The 2021–2030 road map aims to prevent, control, eliminate, and eradicate 21 diseases, including trachoma, by 2030.

# MICRO-RNA: THE REGULATOR OF CELLULAR FUNCTION

#### SYLLABUS MAPPING:

General studies: General Science and Recent development in the field of biotechnology. *FOR PRELIMS:* 

What is RNA its type and what role? What is Mirco RNA?

WHY IN THE NEWS?

The 2024 Nobel Prize in Physiology or Medicine has been awarded to US scientists Victor Ambros and Gary Ruvkun for their work on the discovery of microRNA.

# KEY FACTS ABOUT RIBONUCLEIC ACID (RNA)

**Definition:** RNA is a molecule found in most living organisms and viruses, crucial for various biological functions.

**Structure:** Composed of nucleotides made of ribose sugars, phosphate groups, and nitrogenous bases. Typically single-stranded, though some RNA viruses are double-stranded.

**Function:** Serves primarily as a messenger, transmitting instructions from DNA for protein synthesis. Regulates gene expression, catalyzes biological reactions, and responds to cellular signals.

# Types of RNA:

Messenger RNA (mRNA): Carries genetic information from DNA to ribosomes.

**Ribosomal RNA (rRNA):** Forms the core of ribosome structure and function.

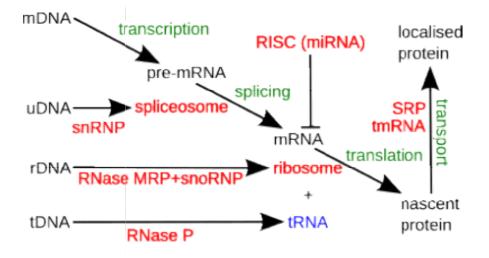
Transfer RNA (tRNA): Delivers amino acids to ribosomes during protein synthesis.

**Relationship to DNA:** Structurally similar, with RNA's backbone made of ribose and DNA's backbone made of deoxyribose. Both share adenine (A), guanine (G), and cytosine (C), but RNA contains uracil (U) instead of thymine (T).

**Therapeutic Potential:** Certain RNA molecules may have applications in treating human diseases. RNA interference (RNAi) screening can analyze entire genomes and pathways on an industrial scale.

# KEY FACTS ABOUT MICRO-RNA (MIRNA)

**Definition:** miRNAs are a class of non-coding RNAs that regulate gene expression. **Biogenesis:** Transcribed from DNA into primary miRNAs. Processed into precursor miRNAs and then matured into functional miRNAs.



**Extracellular Functions:** miRNAs can be secreted into extracellular fluids and transported to target cells via vesicles (e.g., exosomes) or by binding to proteins like Argonautes. Function as chemical messengers, facilitating cell-cell communication

# SIGNIFICANCE OF MICRO-RNA (MIRNA) IN HUMAN AND ANIMAL DISEASES

# 1. Inherited Diseases

**Hearing Loss:** A mutation in the seed region of miR-96 is linked to hereditary progressive hearing loss. **Keratoconus and Cataracts:** A mutation in the seed region of miR-184 is associated with hereditary keratoconus and anterior polar cataracts.

Skeletal Defects: Deletion of the miR-17~92 cluster results in skeletal and growth abnormalities.

#### 2. Cancer

**Cell Proliferation Control:** Many miRNAs directly target and inhibit cell cycle genes, regulating cell proliferation. Chronic Lymphocytic Leukemia: The first human disease connected to miRNA deregulation; several other miRNAs, termed "oncomirs," are also linked to cancer.

**Role in B Cells:** In malignant B cells, miRNAs are involved in critical pathways such as B-cell receptor (BCR) signaling, migration, adhesion, and immunoglobulin production and class-switching. They influence various stages of B cell development, including pre-B, marginal zone, follicular, B1, plasma, and memory B cells.

#### 3. Heart Disease

**Developmental Role:** Conditional inhibition of miRNA maturation in the murine heart indicates that miRNAs are essential for heart development and function.

#### 4. Nervous System

Neuronal Development: miRNAs play a crucial role in the healthy development and function of the nervous system, regulating neuronal differentiation and maturation at various stages.

# **PRELIMS QUESTION?**

# Q.1, With reference to the trachoma disease, Consider the following statement:

1. Trachoma is a viral disease affecting the lungs and kidneys.

- 2. India is the first country in South Asia which declared Trachoma free by WHO.
- 3. Poor hygiene is one of the factors in the spread of trachoma in many parts of the world.

#### How many of the above-given statements are correct?

- A. Only one
- B. Only two
- C. All three
- D. None

# Q.2. Consider the following diseases:

- 1. Cancer
- 2. Hearing Loss
- 3. Cardiac arrest
- 4. Skeletal Defects

# How many of the above-mentioned diseases are associated with the functioning of the Micro RNA?

- A. Only one
- B. Only two
- C. Only three
- D. All four

#### **ANSWER:**

- 1. A
- 2. D

Munde Dhananjay Navnath

