World Malaria Day

For Prelims: Malaria - causes, symptoms, vaccine, Efforts to Control Malaria

For Mains: Health, Malaria and its Eradication

Why in News?

World Malaria Day is observed every year on **25th April.**

- It was established by the **World Health Organization (WHO)** in 2007 to raise awareness about malaria.
- The theme for World Malaria Day 2023 is **"Time to deliver zero malaria: invest, innovate, implement".**

What is Malaria?

- **About:**
  - **Malaria** is a life-threatening disease caused by the **Plasmodium parasite**.
    - This parasite is transmitted to humans **through the bites of infected female Anopheles mosquitoes.**
  - Malaria is **most common in tropical and subtropical regions** of the world, including sub-Saharan Africa, Southeast Asia, and South America.
    - While **Plasmodium falciparum is responsible for more deaths, Plasmodium vivax is the most widespread** of all of the malaria species.
- **Symptoms:**
  - Once inside the human body, the **parasites multiply in the liver and then infect red blood cells**, causing symptoms such as fever, chills, headache, muscle aches, and fatigue.
  - In **severe cases**, malaria can lead to **organ failure, coma, and death.**
- **Vaccine:**
  - Till now, no malaria vaccine has shown the benchmark efficacy of 75% set by WHO. Still, WHO gave a go-ahead for the **first malaria vaccine called** RTS,S to be rolled out in high transmission African countries understanding the urgency of malaria control and prevention.
    - It has relatively **low efficacy somewhere between 30-40%.**
    - This vaccine has been developed by a collaborative effort of several organisations including GlaxoSmithKline (GSK), Bill and Melinda Gates Foundation etc.
  - In India, Bharat Biotech **has been granted license to manufacture this vaccine.**
    - **Similar to RTS,S vaccine the Oxford University has developed a vaccine called R21 which is still waiting for the WHO's approval.**
      - Ghana and Nigeria have approved this vaccine for use in their countries.
      - It is also being manufactured by Serum Institute of India.
- **Malaria Cases:**
  - As per the World Malaria Report 2022**,** the disease claimed the lives of an estimated 6,19,000 people in 2021.

- The report also highlighted that India has shown a **significant decline in malaria cases and deaths in past 10 years.**

What are the Efforts Made to Contain Malaria?

- **Globally:**
  - **Global Malaria Program:**
    - It was launched by WHO and is responsible for coordinating WHO's global efforts to control and eliminate malaria.
    - Its work is guided by the "Global technical strategy for malaria 2016–2030".
      - The strategy aims to reduce malaria case incidence and mortality rates by at least 40% by 2020, at least 75% by 2025 and at least 90% by 2030 against a 2015 baseline.
  - **Malaria Elimination Initiative:**
    - It was launched by **Bill and Melinda Gates Foundation.**
    - This initiative focuses on eliminating malaria in certain regions of the world through a combination of strategies, including increasing access to effective treatments, reducing the mosquito population, and developing new tools and technologies to combat the disease.
  - **E-2025 initiative:**
    - In 2021, WHO launched the E-2025 initiative to halt the transmission of malaria in 25 identified countries by 2025.
- **India's efforts:**
  - **National Vector-Borne Disease Control Programme:** It is an umbrella programme for prevention and control of vector borne diseases viz. **Malaria**, **Japanese Encephalitis (JE)**, **Dengue**, **Chikungunya**, **Kala-azar** and **Lymphatic Filariasis.**
  - **National Malaria Control Programme (NMCP):** Launched in 1953, it is built around three key activities:
    - Insecticidal residual spray (IRS) with DDT
    - Monitoring and surveillance of cases
    - Treatment of patients
  - **National Framework for Malaria Elimination 2016-2030:**
    - Based on WHO Global Technical Strategy for Malaria 2016–2030 (GTS), the goals of the NFME are:
      - Eliminate malaria (zero indigenous cases) throughout the entire country by 2030
      - Maintain malaria–free status in areas where malaria transmission has been interrupted and prevent re-introduction of malaria.
  - **High Burden to High Impact (HBHI) Initiative**: It was started in four states (West Bengal, Jharkhand, Chhattisgarh and Madhya Pradesh) in July 2019.
    - **Distribution of Long-Lasting Insecticidal Nets (LLINs)** to high burden areas has led to a reduction in endemicity in these 4 very high endemic states.
  - **Malaria Elimination Research Alliance-India (MERA-India):** It has been established by **Indian Council of Medical Research (ICMR)** with the conglomeration of partners working on malaria control.

Conclusion

- India's aim is to be malaria-free by 2027 and to eliminate the disease by 2030. Through various measures, the country has made stupendous progress in thwarting malaria, by reducing the disease by 66% between 2018 and 2022.

UPSC Civil Services Examination, Previous Year Questions (PYQs)

Q. Widespread resistance of malarial parasite to drugs like chloroquine has prompted attempts to develop a malarial vaccine to combat malaria. Why is it difficult to develop an effective malaria vaccine? (2010)

(a) Malaria is caused by several species of Plasmodium
(b) Man does not develop immunity to malaria during natural infection
(c) Vaccines can be developed only against bacteria
(d) Man is only an intermediate host and not the definitive host

Ans: (b)

Source: IE