

# **World Malaria Report 2022**

For Prelims: Malaria, Efforts to Control Malaria

For Mains: Health, Malaria and its Eradication

# Why in News?

Recently, the World Malaria Report 2022 was released by the World Health Organization (WHO).

### What are the Highlights of the Report?

- Deaths due to Malaria:
  - **High-burden malaria countries maintained a strong front** against the disease in 2021 despite the Covid-19 pandemic, with cases and deaths stabilising.
    - While deaths came down to 619,000 in 2021 from 625,000 in the first year of the pandemic, it remained higher than the pre-pandemic level of 568,000 deaths in 2019.
- Trend of Malaria Cases:
  - As for Malaria cases, the upward trend continued but at a slower rate 247 million cases in 2021, compared to 245 million cases in 2020 and 232 million in 2019.
- Scenario of High Burden Countries:
  - Among the 11 high-burden countries, five the Democratic Republic of the Congo, Ghana,
     India, Niger and the United Republic of Tanzania recorded a decline in deaths.
  - But these countries continued to contribute heavily to the global disease burden.
- Control Tools used by Countries:
  - Insecticide-treated bednets (ITNs) are the key vector control tool used by endemic countries.
  - Prevalence of Intermittent Preventive Treatment in Pregnancy (IPTP) has remained consistent in 2021 as compared to 2020.
- Hurdles in Ending Malaria:
  - Hurdles impeding the process of ending Malaria include mutating parasites which can
    evade rapid diagnostic tests, increasing drug resistance and the invasion of an urbanadapted mosquitoes, especially in Africa.
    - New tools and fundings to deploy them are urgently needed to help defeat malaria.

### What is Malaria?

- About:
  - Malaria is a life-threatening mosquito borne blood disease caused by plasmodium parasites.
  - It is predominantly found in the tropical and subtropical areas of Africa, South America as well as Asia.
  - It is preventable as well as curable.
- Spread:

- The parasites spread through the bites of infected female Anopheles mosquitoes.
  - After entering the human body, parasites initially **multiply within the liver cells** and then **attack the Red Blood Cells (RBCs)** resulting in their rupture.
- There are 5 parasite species that cause malaria in humans, and 2 of these species Plasmodium falciparum and Plasmodium vivax pose the greatest threat.

# Symptoms:

 Symptoms of malaria include fever and flu-like illness, including shaking chills, headache, muscle aches, and tiredness.

#### Malaria Vaccine:

- Known by its lab initials as RTS, S but branded as Mosquirix, the vaccine has passed lengthy scientific trials that found it to be safe and reducing the risk of malaria by nearly 40%, the best recorded.
- It was developed by GlaxoSmithKline (GSK) company and approved by the European Medicines Agency in 2015.
- The RTS, S vaccine trains the immune system to attack the malaria parasite (Plasmodium (P.) falciparum, the deadliest species of the malaria parasite).

#### What are the Initiatives to Curb Malaria?

#### Global:

- The WHO has also identified 25 countries with the potential to eradicate malaria by 2025 under its <u>'E-2025 Initiative'.</u>
- The WHO's <u>Global technical strategy for malaria 2016-2030</u> aims is 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.

#### India-Specific:

- In India, malaria elimination efforts were initiated in 2015 and were intensified after the launch of the National Framework for Malaria Elimination (NFME) in 2016 by the Ministry of Health and Family Welfare.
  - NFME is in line with WHO's 2016-2030 Malaria Strategy, which guides the WHO Global Malaria Programme (GMP).
- The <u>National Strategic Plan for Malaria Elimination (2017-22)</u> was launched in July 2017 which laid down strategies for the following five years.
  - It gives year-wise elimination targets in various parts of the country depending upon the endemicity of malaria.
- Implementation of the **High Burden to High Impact (HBHI) initiative** 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.
- The <u>Indian Council of Medical Research (ICMR)</u> has established <u>Malaria Elimination</u>
   <u>Research Alliance-India (MERA-India)</u> which is a conglomeration of partners working on malaria control.

### **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)

 Malaria is a life-threatening disease caused by Plasmodium parasites that are transmitted to people through infected female Anopheles mosquitoes.

- The malarial parasite has an extraordinary ability to evade the immune system, which explains the difficulty in developing an effective malaria vaccine.
- RTS,S/AS01 (RTS,S) is the first and, to date, the only vaccine to show partial protection against malaria in young children. Therefore, option (b) is the correct answer.

**Source: DTE** 

