

**NOTIFIABLE DISEASE**

**Prelims:** Governance, Health & Diseases

**Mains:** GS-II- Issues relating to development and management of Social Sector or Services relating to Health, Education, Human Resources.

- ▶▶ **Context:** Union Health Minister Dr Harsh Vardhan asked the Delhi government to make malaria and dengue notifiable diseases,

**What is Notifiable Disease?**

- ▶▶ A notifiable disease is any disease that is required by law to be reported to government authorities.
- ▶▶ The collation of information allows the authorities to monitor the disease, and provides early warning of possible outbreaks.
- ▶▶ The World Health Organization's International Health Regulations, 1969 require disease reporting to the WHO in order to help with its global surveillance and advisory role.

**Significance of Notifying Disease:**

- ▶▶ Making a disease legally notifiable by doctors and health professionals allows for intervention to control the spread of highly infectious diseases.
- ▶▶ Registered medical practitioners need to notify such diseases in a proper form within three days, or notify verbally via phone within 24 hours depending on the urgency of the situation.
- ▶▶ This means every government hospital, private hospital, laboratories, and clinics will have to report cases of the disease to the government.
- ▶▶ The process **helps the government keep track and formulate a plan for elimination and control.**
- ▶▶ In less infectious conditions, it improves information about the burden and distribution of disease.

**Other Notified Diseases:**

- ▶▶ The Centre has notified several diseases such as cholera, diphtheria, encephalitis, leprosy, meningitis, pertussis (whooping cough), plague, tuberculosis, AIDS, hepatitis, measles, yellow fever, malaria dengue, etc.

## Concern:

- ▶▶ The onus of notifying any disease and the implementation lies with the state government.
- ▶▶ Any failure to report a notifiable disease is a criminal offence and the state government can take necessary actions against defaulters.

## About Malaria:

- ▶▶ It is a life-threatening disease caused by parasites belonging to the Plasmodium genus, which are transmitted to people through the bites of **infected female Anopheles mosquitoes**. The mosquito-borne blood disease is **preventable and curable**.
- ▶▶ Plasmodium parasite infects a variety of species and different types of Plasmodium genus replicate at different rates, changing how quickly the symptoms escalate, and the severity of the disease.

## Causes of Malaria:

- ▶▶ There are many factors that can cause malaria, such as:
  - ▶▶ Bitten by a malarial vector (Anopheles stephensi)
  - ▶▶ Use of shared and infected syringes.
  - ▶▶ Organ transplantation.
  - ▶▶ Transfusion.
  - ▶▶ From an infected mother to her baby during birth.
- ▶▶ It is caused by the parasites -
  - ✓ Plasmodium vivax (P.vivax)
  - ✓ Plasmodium falciparum (P.falciparum)
  - ✓ Plasmodium malariae (P.malariae)
  - ✓ Plasmodium ovale (P.ovale)

## Symptoms of Malaria:

- ▶▶ Symptoms of malaria are exhibited within 7 to 18 days of being infected. Common symptoms include:
  - ✓ Fever, fatigue, chills, vomiting, and headaches
  - ✓ Diarrhoea, anaemia and muscle pain
  - ✓ Profuse sweating and convulsions
  - ✓ Bloody stools.
  - ✓ In severe cases, malaria can be devastating; it can lead to seizures, coma and eventually, death.

## Vaccine:

- ▶▶ The RTS,S vaccine is the first, and to date, the only, vaccine that has demonstrated that it could significantly reduce malaria in children.

- ▶▶ RTS,S is a scientific name given to this malaria vaccine candidate and represents its composition.
- ▶▶ It aims to trigger the immune system to defend against the first stages of malaria.
- ▶▶ This is when the parasite enters the human host's bloodstream through a mosquito bite and infects liver cells.
- ▶▶ The vaccine is designed to prevent the parasite from infecting the liver.
- ▶▶ The vaccine has been developed by GSK (former GlaxoSmithKline), which is donating about 10 million doses of the product for the pilot.
- ▶▶ It was created in 1987 by GSK, and was subsequently developed with support from the Bill and Melinda Gates Foundation.
- ▶▶ In clinical trials, the vaccine was found to prevent approximately 4 in 10 malaria cases, including 3 in 10 cases of life-threatening severe malaria.

