

Chikungunya Vaccine

Why in News

Recently, International Vaccine Institute (IVI) has announced that Bharat Biotech's Chikungunya vaccine candidate (BBV87) has entered into Phase II and III clinical trials. Currently, there is no commercial chikungunya vaccine.

Key Points

- About the Vaccine:
 - BBV87 is an <u>inactivated virus vaccine</u>, similar to <u>Covaxin</u>.
 - Inactivated vaccines contain viruses whose genetic material has been destroyed by heat, chemicals or radiation so they cannot infect cells and replicate, but can still trigger an immune response.
 - Bharat Biotech's Chikungunya vaccine candidate was developed in partnership with the International Vaccine Institute (IVI).
 - Development of Chikungunya Vaccine is an initiative of the <u>United Nations</u>
 <u>Development Programme (UNDP)</u>, as part of the <u>Global Chikungunya Vaccine</u>
 Clinical Development Program (GCCDP).
 - It was funded by the <u>Coalition for Epidemic Preparedness Innovations</u> (CEPI) with support from the Ind-CEPI mission of the Department of Biotechnology, Government of India.

Chikungunya:

- About:
 - Chikungunya is a mosquito-borne viral disease first described during an outbreak in southern Tanzania in 1952.
 - The name is derived from the **local Kimakonde language** and means "to become contorted", evoking the stooped appearance of patients suffering acute joint pain.
- Transmission:
 - It is transmitted to people through the bite of an infected mosquito.
 - It is most often spread to people by Aedes aegypti and Aedes albopictus mosquitoes. These are the same mosquitoes that transmit dengue virus.
 - Mosquitoes acquire the infection by biting infected humans or animals.
 - Weather conditions also affect their breeding and survival.
- Symptoms:
 - Include severe joint pain, muscle pain, headache, nausea, fatigue and rashes.
- Treatment:
 - Currently, there are no vaccines or antiviral drugs available to cure

Chikungunya, and the treatment is only focused on relieving the symptoms associated with the infection.

- **Reasons Behind the Spurt in Cases:** There has been an increasing incidence of vector borne diseases in urban, peri-urban and rural areas because of:
 - Haphazard urbanisation.
 - **Deficient water and solid waste management** leading to proliferation of mosquito breeding sites.
 - Absence of specific antiviral drug or vaccine.
- Government Initiatives to Control Chikungunya:
 - National Vector Borne Disease Control Programme (NVBDCP) is a comprehensive programme for prevention and control of vector borne diseases namely Malaria, Filaria, Kala-azar, Japanese Encephalitis (JE), Dengue and Chikungunya.

