



# HPV Vaccine

## Why in News?

Cervavac, a vaccine developed by the **Serum Institute of India (SII)**, has recently acquired market authorization from the [Drugs Controller General of India \(DGCI\)](#).

- it is India's first **Quadrivalent Human Papillomavirus Vaccination (qHPV)** designed to protect women from cervical cancer.

## What is Cervical Cancer?

- **Cervical cancer** is a prevalent sexually transmitted infection.
- It's a type of cancer that occurs in the cells of the cervix, the lower part of the uterus that connects to the vagina.
- It is mostly caused by long-term infection with particular forms of HPV.
- It is the second most prevalent cancer form and the second leading cause of cancer death in women of reproductive age (15-44).
- **Indian Perspective:**
  - According to the **World Health Organization's International Agency for Research on Cancer**, India accounts for roughly **one-fifth of the global burden**, with 1.23 lakh cases and around 67,000 fatalities every year.

## What is the Significance of the new Vaccine?

- It's based on **VLP (Virus-Like Particles)**, similar to the **Hepatitis B** vaccination, and gives protection by producing antibodies against the HPV virus' L1 protein.
  - It is said to be effective against four strains of the virus - Type 6, Type 11, Type 16 and Type 18.
  - A **quadrivalent vaccine** is a vaccine that works by stimulating an immune response against four different antigens, such as four different viruses or other microorganisms.
- It has a significant potential to eliminate cervical cancer and it would be helpful if it will be included in national HPV vaccination efforts and offered at a **lower cost** than existing vaccinations.
  - Existing Two vaccines licensed globally are available in India — a quadrivalent vaccine (Gardasil, from Merck) and a bivalent vaccine (Cervarix, from GlaxoSmithKline) and are costly and none of them are included in the [national immunization program](#).
- After the DGCI approval, it would enable the government to procure vaccines in bulk in order to vaccinate around 50 million girls aged between 9 to 14 years.
- The vaccine is extremely effective only when it's administered before the first sexual intercourse.

## UPSC Civil Services Examination Previous Year Question (PYQ)

Q. 'Mission Indradhanush' launched by the Government of India pertains to (2016)

- (a) immunization of children and pregnant women
- (b) construction of smart cities across the country
- (c) India's own search for the Earth-like planets in outer space
- (d) New Educational Policy

**Ans: (a)**

**Exp:**

- Mission Indradhanush is an immunization scheme launched by the Ministry of Health and Family Welfare, Govt on 25<sup>th</sup> December, 2014.
- Depicting seven colours of the rainbow, it aimed to cover all those children by 2020 who are either unvaccinated, or are partially vaccinated against seven vaccine preventable diseases which include diphtheria, whooping cough, tetanus, polio, tuberculosis, measles and hepatitis B.
- The mission is technically supported by WHO, UNICEF, Rotary International and other donor partners. Therefore, option (a) is the correct answer.

**Source: IE**

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