



HPV Vaccine Reducing Cervical Cancer

Why in News

Recently, new research has found that the **Human papillomavirus (HPV) vaccine (Cervarix) reduces the risk of Cervical Cancer significantly in women.**

- The results are important because the vaccine was introduced in the 2000s and studies confirming that it is effective against cancer have come up only recently.

Key Points

▪ Findings:

- The Human papillomavirus (HPV) vaccine **reduced cervical cancer cases by 87% among women in the U.K.** who received the vaccine when they were **12 or 13 years old.**
- It **reduced the risk by 34% in women who were aged 16-18 years** when they were offered the jab.
- Over **a period of 11 years (since 2006)**, the vaccine **prevented around 450 cervical cancers** and around 17,200 cases of precancerous conditions.

▪ Cervical Cancer:

- It is a type of cancer that occurs **in the cells of the cervix** - the lower part of the uterus that connects to the vagina.
- Various strains of the **Human papillomavirus (HPV) play a role in causing most cervical cancer.**
- When exposed to HPV, the body's immune system typically prevents the virus from doing harm. In a small percentage of people, **however, the virus survives for years, contributing to the process that causes** some cervical cells to become cancer cells.
- The **HPV vaccine (Cervarix)** protects against two of the cancer-causing strains, which are HPV 16 and 18.

▪ Human papillomavirus:

- Human papillomavirus (HPV) is the **most common viral infection of the reproductive tract.**
- There are **more than 100 types of HPV.**
 - More than 40 types of HPV are **spread through direct sexual contact.**
 - Out of these 40, **two cause genital warts**, while **about a dozen of HPV cause different types of cancer** including cervical, anal, oropharyngeal, penile, vulvar and vaginal.

▪ Types of HPV Vaccines:

- **Quadrivalent vaccine (Gardasil):** It protects against **four types of HPV (HPV 16, 18, 6 and 11).** The latter two strains cause genital warts.
- **Bivalent vaccine (Cervarix):** It protects against **HPV 16 and 18 only.**
- **Non valent vaccine (Gardasil 9):** It protects against **nine strains of HPV.**

- These vaccines prevent cervical cancer in women and girls who have not yet been exposed to the virus.

▪ **Indian Scenario:**

- India is home to 16-17% of the world's population, **globally 27% of total cervical cancer cases are from here.**
- Further, in India about **77% cases of cervical cancer are caused by HPV 16 and 18.**
- In India, **bivalent and quadrivalent HPV vaccines were licensed in 2008** and a **non valent vaccine was licensed in 2018.**
- Officially, the HPV vaccine has **not been recommended for boys and males in India.**

Cancer

- It is a large group of diseases **that can start in almost any organ or tissue of the body** when abnormal cells grow uncontrollably, go beyond their usual boundaries to invade adjoining parts of the body and/or spread to other organs. The latter process is called metastasizing and is **a major cause of death from cancer.**
- A **neoplasm and malignant tumor** are other common names for cancer.
- Lung, prostate, colorectal, stomach and liver cancer are the most common types of cancer in men, while breast, colorectal, lung, cervical and thyroid cancer are the most common among women.
- **World Cancer Day** is organized by the **Union for International Cancer Control (UICC)** and celebrated each year on **4th February.**
- **Related Indian Initiatives:**
 - [National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases and Stroke \(NPCDCS\).](#)
 - [National Cancer Grid \(NCG\).](#)

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