Cervical Cancer Vaccine

Why in news?

India's interim Union Budget 2024-25 has taken a significant step by supporting the vaccination of girls aged 9 to 14 against cervical cancer, marking a new era in women's health.

Status of cervical cancer
• Cervical cancer is 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 a *common sexually transmitted infection* which is caused mainly due to the long-lasting infection with certain types of HPV. • It is preventable as long as it is detected early and managed effectively. • **Global burden-** Cervical cancer is the *2nd most common cancer type* and the *2nd most common cause of cancer death* in women of reproductive age (15-44). • **Status of India**- As per World Health Organisation, India accounts for about a fifth of the global burden, with 1.23 lakh cases and around 67,000 deaths per year. • It remains the *2nd most common cancer among women in India*, it kills one women every eight minutes in India.

What is cervical cancer?

- Cervical cancer develops in a woman's cervix (the entrance to the uterus from the vagina), it is preventable and curable, as long as it is detected early and managed effectively.
- **Causes-** Almost all cervical cancer cases (99%) are caused due to high-risk HPV, a highly common virus transmitted through sexual contact.
- **Other risk factors-** It include many sexual partners, early sexual activity, other sexually transmitted infections, a weakened immune system, smoking, exposure to miscarriage prevention drug, etc.
- **Symptoms -**
    - Vaginal bleeding after intercourse, between periods or after menopause,
    - Pelvic pain or pain during intercourse
    - Watery, bloody vaginal discharge that may be heavy and have a foul odour.
- **Prevention -** Effective primary (HPV vaccination) and secondary prevention approaches (screening for, and treating precancerous lesions) will prevent most cervical cancer cases.
    - **Screening-** All women aged 30-49 must get screened for cervical cancer even if they have no symptoms.
    - **Vaccination-** Adoloscent girl children must be vaccinated with HPV vaccine.

What are the steps taken against cervical cancer?

- **Global Strategy for Cervical Cancer Elimination**- In 2020, the WHO adopted this strategy in order to eliminate cervical cancer as a public health problem.
- **Aim**- To eliminate cervical cancer, all countries must reach and maintain an incidence rate of below four per 100 000 women.
- Each country should meet the ***90-70-90 targets by 2030*** to get on the path to eliminate cervical cancer within the next century.



- **Existing vaccines** - Two vaccines licensed globally are available in India -
  - A quadrivalent vaccine (Gardasil, from Merck) and
  - A bivalent vaccine (Cervarix, from GlaxoSmithKline).
- Although HPV vaccination was introduced in 2008, it has yet to be included in the national immunisation programme.
- **Cervavac**- It is India's first indigenous quadrivalent human papillomavirus vaccine (qHPV) vaccine, and intended to protect women against cervical cancer.
- **Developed by**- *Serum Institute of India* in collaboration with the *Department of Biotechnology*
- **Immunisation drive** – It will be conducted through schools and existing vaccination points, planned in 3 phases over 3 years and is likely to start from the 2nd quarter of 2024 for free.

Success stories of Immunisation drive
• **Global scenario**- Over 100 countries have adopted HPV vaccination programs1. • **Impact in Scotland**-A study reported zero cases of cervical cancer in fully vaccinated women born between 1988 and 19962. • **Australia's Progress**- Since starting HPV vaccinations in 2007, Australia is on track to eliminate cervical cancer by 2035. • **Rwanda's Achievement**- The country's campaign has greatly lowered the occurrence of HPV types targeted by the vaccine. • **South East Asia-** 6 out of 11 countries have rolled out the HPV vaccine nationwide. • **Bhutan-** It was the *first Low Middle Income Country* to launch a nationwide HPV vaccination program for girls aged 12 to 18 in 2010, achieving an initial coverage of 95%, research shown a decrease in the prevalence of HPV transmission. • **Sikkim model**- In 2018, HPV vaccine was provided free of cost to girls aged 9 to 14 with the program achieving 95% coverage for both doses, thanks to the effective communication and outreach.

What can be done to increase HPV vaccination?

- **Address vaccine hesitancy**- The myths and misinformation about vaccines must be addressed to increase vaccine acceptance.
- **Equitable access-** The vaccination services should reach the underserved population, which is essential to overcome logistical challenges and improve access to vaccination services.
- **Community engagement**- The messages must be tailored to cultural and societal norms which can improve community engagement.

- **Education**- The health education must inculcate information regarding HPV to generate vaccine demand among adolescents.
- **U-WIN Portal-** The rollout of U-WIN portal in lines of Co-WIN should help maintain an electronic registry of immunizations and enhance the responsiveness of vaccination programs.
- **Multi stakeholder approach**- Partnerships among government, community groups, healthcare providers, and civil society are key to building trust.
- **Public private partnership**- It is vital for providing equitable vaccination services and promoting women's health.

What lies ahead?

- The successful Sikkim model has set a precedent for other Indian States to follow, demonstrating the importance of communication in public health interventions.
- India's commendable performances in vaccination drives particularly the COVID-19 campaign sets a promising precedent for the upcoming HPV vaccination initiative.
- HPV vaccination is not just a health measure but also a step towards reducing the societal and economic impacts of cervical cancer.

References

1. The Hindu-A bold step towards cervical cancer free future
2. PIB- About Cervavac

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