

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

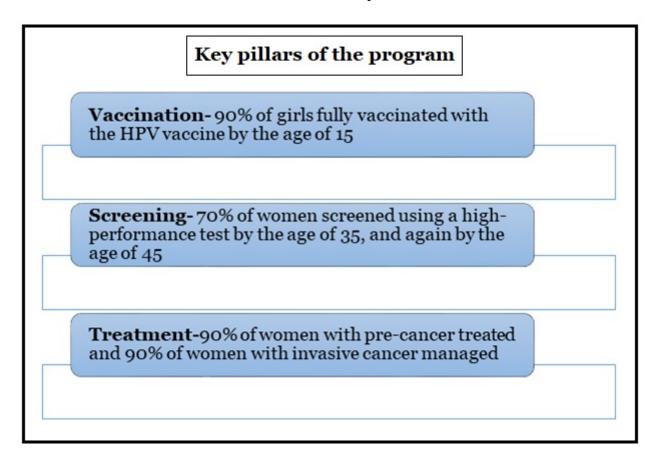
- Cervical cancer is a type of cancer that occurs in the cells of the cervix -the lower part of the uterus that connects to the vagina.
- It is a *common sexually transmitted infection* which is caused mainly due to the long-lasting infection with certain types of HPV.
- It is preventable as long as it is detected early and managed effectively.
- Global burden- Cervical cancer is the 2^{nd} most common cancer type and the 2^{nd} 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 2^{nd} 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 (gHPV) vaccine, and intended to protect women against cervical cancer.
- **Developed by** <u>Serum Institute of India</u> in collaboration with the <u>Department of Biotechnology</u>
- **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 <u>first Low Middle Income Country</u> 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

