

## Indigenous HPV Test Kits for Cervical Cancer Screening

**Prelims** - *Current events of national and international importance.*

**Mains (GS III)** - *Science and Technology- developments and their applications and effects in everyday life.*

### Why in news?

*Indigenous HPV (Human papillomavirus) test kits for cervical cancer screening were launched recently in New Delhi.*

- **Objective** - To enable affordable, accessible, and ideally mass screening for cervical cancer.
- **Developed by** - Biotechnology Industry Research Assistance Council (BIRAC) under Department of Biotechnology's (DBT) partnership programme Grand Challenges India (GCI).

*The Grand Challenges initiative launched by Bill & Melinda Gates Foundation drives innovation (BMGF) to tackle critical health issues in developing nations.*

*In 2012, BMGF and DBT signed an MOU to launch Grand Challenges India, to foster health research and innovation.*

- Developed in collaboration with International Agency for Research on Cancer (IARC).

*The International Agency for Research on Cancer is an intergovernmental agency is a part of World Health Organization founded in 1965 to conduct and coordinate research on causes of cancer.*

### Key Features of the Test Kit

- **Focused screening** - The kits include only the 7-8 most common cancer-causing HPV types, making the screening more focused and relevant to the Indian population.
- **RTPCR-based diagnostic** - The kits use RTPCR (Real-Time Polymerase Chain Reaction) technology, which is known for its high sensitivity and specificity in detecting viral genetic material.
- **Efficient and cost-effective** - The focused approach on the most relevant HPV types and the use of existing RTPCR infrastructure make these kits a cost-effective screening method.
- **Point-of-care test** - The testing is conducted close to the site of patient care where

care or treatment is provided.

### Cervical Cancer in India

- Cervical cancer is a cancer that develops in the cervix, the lower part of the uterus.
- **Caused by** - Human PapillomaVirus (HPV).
- **2<sup>nd</sup> most common** cancer among Indian women.
- According to WHO data, **1 in every 5 women** globally suffering from cervical cancer is from India,
- **25% of global cervical cancer** deaths occurring in India often due to *late diagnosis*.
- WHO recommends transitioning to HPV testing *with only two tests in a lifetime (at age 35 and 45)* to reduce the burden of screening, making it easier for women to access screening programs.
- **Target** - Screen 70% of eligible women by 2030.

### Reference

[The Hindu| Indigenously developed HPV test kits](#)

