A SELF-SAMPLING METHOD AND KIT FOR DETECTING HUMAN PAPILLOMAVIRUS INFECTION

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About the Technology: The present technology is helpful in cervical cancer screening to detect Human Papillomavirus (HPV) infection. The innovation comprises a universal collection medium, a self-sampling brush, and a sanitary pad, useful for IVD of HPV and potential use for other sexually transmitted infections (STIs).

Technology ID: PM-TT-IM-2026-Apr-64
Lead Inventor: Dr. Showket Hussain
Institute: ICMR-National Institute of Cancer Prevention and Research (NICPR), Noida
Technology Domain: Diagnostics
Disease Area (Broad): Communicable and non-communicable Diseases (HPV and cervical cancer).
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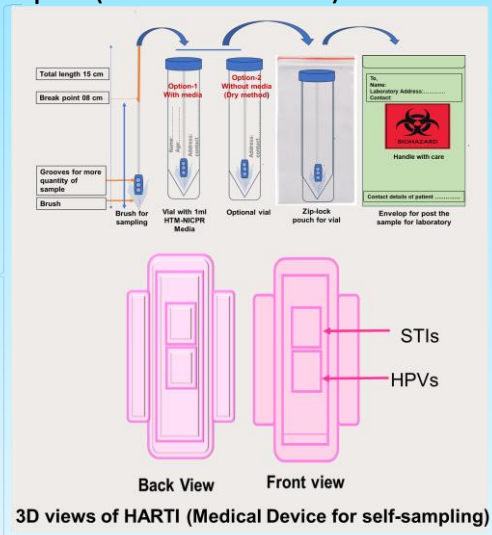
EoI Deadline: 20 May, 2026

Need and utility of the Technology from Public health perspective:

This self-sampling HPV technology enables non-invasive, home-based screening and reduces access, stigma, and workforce barriers. Its cost-effective, scalable design supports early detection, expands screening coverage, and strengthens cervical cancer prevention in low-resource settings.

Technology Readiness level (TRL):

TRL – 5: The technology has been validated using FDA-approved Hybrid Capture 2 and real-time PCR for HPV-DNA Testing, and on external sites using COBAS 5800 (Roche Diagnostics) and BD LT Viper (BD Biosciences).



3D views of HARTI (Medical Device for self-sampling)

Validation Status and Study Outcome:

- In-house Validation: Complete
- Efficacy Outcome: Self-collected samples using this technology show accuracy comparable to clinician-collected samples for HPV DNA detection

Market Potential:

Global HPV burden: ~13 million new HPV infections occur annually worldwide. **Unmet need:** Nearly 2 out of 3 women in the target screening age group have never been screened due to cost, lack of access.

Publication: NA

IP Filing: Provisional Application Number (INDIA), 202411043608