Abstract

Out of Adversity Comes Opportunity: Smart-Colpo National Program for the Elimination of Carcinoma Cervix in a Post–COVID-19 World

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Background: Carcinoma cervix is one of the leading causes of death among women worldwide. The World Health Organization has put forth the 90-70-90 global strategy for the elimination of cervical cancer as a public health problem. It calls for 70% women to be screened at least once in their lifetime. However, this rate is as low as 1.9% for India and even lower for many other countries, making the target insurmountable, especially in resource-constrained settings. The COVID-19 pandemic made this even more challenging.

Objective: This study aimed to identify bottlenecks and high leverage points and propose a technology-driven, national-level program for improving the screening of carcinoma cervix.

Methods: Detailed process mapping was done to identify potential bottlenecks. A counterfactual approach was used to identify high leverage points for impact using “What if” scenarios. These findings were used to build program theory–based logic models to propose a national-level program for carcinoma cervix prevention.

Results: Availability, accessibility, affordability, skewed distribution of infrastructure, cost implications, and limited specialist workforce were identified as bottlenecks. The COVID-19 pandemic put a strain on existing resources and worsened the situation. The existing network of primary health care workers, changes in health-seeking behavior due to COVID-19 with the increasing role of tele-health, conducive political milieu with initiatives such as Digital India Mission, and a booming start-up ecosystem were identified as high leverage points through the counterfactual approach. Using these findings, a national program was designed with program theory–based logic modeling.

Conclusions: The journey from <2% of women screened at least once in their lifetime all the way to 70% would need a drastic increase in funding and resource allocation, which is unlikely considering the current conditions. COVID-19 has not only been
an adversity but also opened new thinking and opportunities. Artificial intelligence–driven, cost-effective, easy-to-use, and widely acceptable solutions such as “Smart-Colpo” can be a game changer to achieve the World Health Organization targets.

Conflicts of Interest: None declared.

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KEYWORDS
Smart-Colpo; cervical cancer; screening; artificial intelligence; low-resource setting