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Diagnosis for all

**TOWARDS ELIMINATION:
A ROADMAP FOR ENDING
CERVICAL CANCER IN
KARNATAKA THROUGH
ACCESSIBLE SCREENING
AND TREATMENT**



6 OCTOBER 2023

Taj West End, Bangalore

OVERVIEW



Cervical cancer is the second most common cancer in India, despite being preventable and curable. The country accounts for a quarter of the global cervical cancer burden, with more than 75,000 women dying every year from the disease.¹ The World Health Organization (WHO) estimates that the annual burden of new cases in India will increase to almost 225,000 by 2025 without widespread screening and prevention efforts.² The Operational Guidelines of the National Programme for Prevention and Control of Non-Communicable Diseases (2023–2030) recommend that all women between the ages of 30 and 65 years should be screened for cervical cancer, at least once every 5 years using visual inspection with acetic acid (VIA) through the network of *Ayushman Bharat* health and wellness centres. These centres however have limited capacity and infrastructure to perform screening or manage follow-ups with women who screen positive.³ There is slow progress in transitioning to WHO-recommended human papillomavirus (HPV) DNA testing as the primary mode of screening. Barriers to appropriate implementation and uptake of cervical cancer screening persist across the country at the policy, health system and community levels.⁴

The state of Karnataka has the second highest incidence of cervical cancer in the country,⁵ accounting for ~12% of all cancers amongst women in the state. Over 5,000 women were diagnosed with cervical cancer in 2021 alone.⁶ However, state leadership is committed to eliminating cervical cancer, and in the last few years, Karnataka has been taking steps to address the challenge posed by the disease. The state also has a strong stakeholder ecosystem spanning health practitioners, research institutions, academia and civil society, working together towards cervical cancer elimination.

FIND, in collaboration with the Directorate of Health and Family Welfare Services, Government of Karnataka, held a policy consultation on 6 October 2023 in Bengaluru, Karnataka to identify opportunities for strengthening ongoing efforts against cervical cancer and accelerate elimination. The consultation aimed to explore approaches such as inter-departmental coordination, public–private partnerships and use of new high-sensitive technologies like HPV DNA testing. Chaired by Shri Dinesh Gundu Rao, Hon'ble Minister for Health and Family Welfare, Government of Karnataka, the event convened a wide array of stakeholders including elected representatives, senior representatives from the state department for non-communicable diseases, leading gynecologists and oncologists in Karnataka, research and academic institutions, civil society organizations and private sector organizations. The meeting was supported by Roche Diagnostics.

An inaugural session with state government leadership set the stage, providing context on the objectives of the meeting. This was followed by a plenary with current and former members of Karnataka's legislative assembly who weighed in on key strategies that could be implemented to ensure greater access to cervical cancer-related services, including effective screening, universal vaccination and timely treatment. The meeting ended with an in-depth technical session with a diverse panel of experts. A highlight from the meeting was Mrs. K. Sharadamma, a cervical cancer champion sharing the powerful story of her battle and triumph against the disease and her ongoing efforts to encourage women to get screened for cervical cancer.

1 Ministry of Science and Technology. (1 September 2022). Union minister Dr Jitendra singh announces India's first indigenously developed vaccine, "CERVAVAC" for the Prevention of Cervical Cancer. Press Information Bureau. <https://www.pib.gov.in/PressReleasePage.aspx-?PRID=1856034> accessed on 10 September 2023

2 Krishnan S, Madsen E, Porterfield D, Varghese B, Pohlman J, Taylor O. Advancing Cervical Cancer Prevention in India. Health, nutrition, and population global practice knowledge brief. World Bank, Washington, DC. <https://openknowledge.worldbank.org/handle/10986/21765> accessed on 10 September 2023

3 Vora K., McQuatters L., Saiyed S., Gupta P. Knowledge, attitudes, and barriers to screening for cervical cancer among women in India: a review WCRJ 2020; 7: e1504 DOI: 10.32113/wcrj_20203_1504 accessed on 11 September 2023

4 World Health Organization. Strategic framework for the comprehensive control of cancer cervix in southeast Asia

5 Singh, M., Jha, R.P., Shri, N. et al. Secular trends in incidence and mortality of cervical cancer in India and its states, 1990-2019: data from the Global Burden of Disease 2019 Study. BMC Cancer 22, 149 (2022). <https://doi.org/10.1186/s12885-022-09232-w> accessed on 11 September 2023

6 Kidwai Memorial Institute of Oncology, Bengaluru. (n.d.). Cancer burden and estimates. Cancer Burden and Estimates - KIDWAI MEMORIAL INSTITUTE OF ONCOLOGY - BENGALURU. <https://kmio.karnataka.gov.in/page/Statistics/Cancer+Burden+and+Estimates/en> accessed on 11 September 2023

KEY TAKEAWAYS



A. There is a high level of political commitment in Karnataka to accelerate efforts to eliminate cervical cancer



Cervical cancer elimination is a priority for Karnataka. We must invest in cost-effective and preventive interventions like vaccinating girls and screening women over 30 years of age. Today's consultation is the first step in working towards a roadmap to eliminate cervical cancer in Karnataka.

Shri Dinesh Gundu Rao, Minister of Health and Family Welfare, Government of Karnataka

Cervical cancer elimination is a priority for Karnataka. The state has recently launched Griha Arogya, a door-to-door health campaign that includes awareness programmes, screening and diagnosis for priority diseases and linkages with care. Under the scheme, cervical cancer screening will be undertaken through mobile health units, and the government aims to roll out HPV vaccination for schoolgirls over the age of 14 years. During the meeting, the Hon'ble Health Minister committed to developing a first-of-its kind roadmap for cervical cancer elimination in Karnataka. He emphasized the need to invest in cost-effective preventive measures such as vaccinating schoolgirls over the age of 14 years and screening all women over 30 years old at the primary care level. He also highlighted the need for newer, highly sensitive screening tests for cervical cancer. The Minister's commitment was echoed by both current and former Members of the Legislative Assembly, who advocated for a comprehensive approach to cervical cancer elimination that encompasses:

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- a) Interventions coordinated through an inter-departmental mechanism comprising representatives from the department of health and family welfare and allied departments such as the department of women and child development, department of education and department of medical education**

 - b) Targeted behaviour change communication that leverages conventional media and social media to improve awareness and drive demand for services**

 - c) Adequate human resources through a separate cadre of healthcare workers to conduct screening**

 - d) Public-private partnerships to enhance the state's capacity to conduct screening and diagnosis**

To further emphasize the collective commitment, the Hon'ble Health Minister, elected representatives and participants signed a pledge to achieve the WHO 90–70–90 targets for cervical cancer elimination in Karnataka.

B. HPV DNA testing for cervical cancer screening is strongly endorsed by diverse stakeholders in Karnataka

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WHO recommends HPV DNA testing as the primary screening intervention, as studies indicate that it is the most accurate and cost-effective method. Self-sampling for HPV DNA testing has been accepted by the women of Karnataka. I would urge the policymakers to consider HPV DNA testing for cervical cancer screening in the state.

Dr Devanshi Somaiya, Research Physician, Public Health Research Institute of India

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HPV DNA testing is no different from what was done during the COVID-19 pandemic. It is easy to implement and saves a woman at least three trips to a facility. Repeated doctor visits bring a socio-economic and emotional burden to a woman, which can be avoided with HPV DNA testing.

Mridu Gupta, Founder, Cancer Awareness, Prevention and Early Detection (CAPED) Trust

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At Karkinos Healthcare we have been using HPV DNA testing to screen women across the country. We have conducted over 25,000 tests in the last few years and our experience indicates that it is a technologically sound test that gives high negative predictive value. It is a test that can be deployed as a provider-based test or self-test, depending upon a woman's choice.

Sripriya Rao, Co-founder and Chief Growth Officer, Karkinos Healthcare

Multiple stakeholders made a strong appeal to the state government to adopt WHO-recommended HPV DNA testing as part of the cervical cancer screening programme. The benefits of HPV DNA testing such as simplified sample collection, greater testing accuracy and reduced screening intervals compared to VIA or PAP smears, were highlighted. Civil society organizations and private sector organizations that had piloted HPV DNA testing shared their experiences. A notable example shared was a first-of-its kind initiative by the Madhya Pradesh National Health Mission and National AIDS Control Organization (NACO) to make HPV DNA testing available at antiretroviral treatment (ART) centres for women living with HIV.

C. A multi-pronged approach is fundamental to develop a roadmap on cervical cancer elimination

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Health is a state subject. Karnataka can demonstrate India's first model for cervical cancer elimination. Under the Health Minister's leadership, we can collaborate with allied ministries, institutions like Indian Council of Medical Research, partner organizations and CSR donors, to demonstrate models for cervical cancer vaccination and screening using WHO-recommended highly sensitive tests.

Dr Vishal U.S Rao, Dean - Centre of Academic Research and Country Director - Head Neck Surgical Oncology & Robotic Surgery, HCG Cancer Centre

During the plenary session, Dr Vishal U.S Rao, Dean of the Centre of Academic Research and Country Director, Head Neck Surgical Oncology & Robotic Surgery, HCG Cancer Centre, shared a broad framework for a roadmap on cervical cancer elimination in Karnataka with the Health Minister and elected representatives that covered multiple aspects, including:

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- a)** Establishing robust leadership and governance structures, including inter-ministerial committees to enable monitoring of interventions and ensure accountability

 - b)** Forging partnerships with CSR donors and foundations to ensure sustainable financing of interventions including through pilots and demonstration models

 - c)** Identifying approaches to ensure uninterrupted access to new interventions, including vaccines and HPV DNA-based testing

 - d)** Building a dedicated community health workforce distinct from Accredited Social Health Activists (ASHAs) and Auxiliary Nurse Midwife (ANMs) to ensure effective implementation of cervical cancer screening interventions. Successful examples of engaging a separate cadre of community workers in health interventions were shared, such as the appointment of community workers under the SAKSHAM project led by the Tata Institute of Social Sciences (TISS) for tuberculosis prevention and treatment adherence

 - e)** Establishing comprehensive data management systems to support reporting of identified cases that are compatible with national registries.

It was proposed that based on this framework, a roadmap could be developed and presented to the Health Minister for approval.

D. Innovative approaches will be key to improving awareness and fostering demand for cervical cancer screening

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I was diagnosed with cervical cancer 15 years ago. Early diagnosis and timely treatment saved my life. My journey has taught me that the disease can be fatal if it is not detected quickly. As a healthcare worker, I now raise awareness about cervical cancer and strongly encourage women over 30 to get screened for the disease. Cancer need not be a death sentence and I am proof of that, as a survivor.

Mrs K Sharadamma, a cervical cancer survivor and champion

The main barriers reported with uptake of cervical cancer screening are lack of knowledge and awareness, fear and embarrassment, lack of time and access to healthcare facilities, and lack of family support.⁷ During the discussions moderated by Dr Vishal Rao and Ms Shama Karkal, Partner, Swasti Health Catalyst, key recommendations were made on approaches to mobilize communities for screening and vaccination, including:

- a) Adopting a life-cycle approach to ensure greater acceptance of cervical cancer screening in the community. Cervical cancer screening can be included as one of the routine tests in a woman's health plan after childbirth. Counselling on the importance of cervical cancer screening can be provided to women through a one-stop clinic established for regular health check-ups
- b) Engaging adolescents as community changemakers who can advocate for vaccination and encourage women in their families to get screened
- c) Providing evidence-based, standardized counselling for the general population on HPV screening, what an HPV positive test means and treatment options by the government. The materials could include audio-visual aids such as awareness video clips and survivor stories that resonate with communities
- d) Supporting community awareness about cervical cancer through a single, standardized message that focuses on the importance of preventive health. Furthermore, it is important to explain to women the journey or pathways for screening and treatment, to equip them with information on how they will be diagnosed and treated

⁷ Srinath A, van Merode F, Rao SV, Pavlova M. Barriers to cervical cancer and breast cancer screening uptake in low- and middle-income countries: a systematic review accessed on 11 September 2023. Health Policy Plan. 2023 Apr 11;38(4):509-527

CONCLUSION

The consultation highlighted high levels of political commitment in Karnataka to achieve the WHO cervical cancer elimination targets. It was also evident that there is momentum for implementing WHO-recommended interventions including HPV DNA testing, which has been piloted in limited settings across the state by different organizations. Many of the individuals, organizations and institutions working on cervical cancer elimination in Karnataka have been working in silos, and the consultation served as a platform for them to share experiences and explore ideas and opportunities for collaboration.



ANNEXURE

ANNEXURE I Agenda

ANNEXURE II Details of sessions and speakers

ANNEXURE I

Towards elimination: a roadmap for ending cervical cancer in Karnataka through accessible screening and treatment

AGENDA

REGISTRATION

Welcome ● Dr Srinivasa G.A, Deputy Director, State NCD Division, Directorate of Health and Family Welfare Services

Context setting ● Dr Sarabjit Singh Chadha, Regional Technical Director, FIND

INAUGURAL SESSION

Lighting of the lamp

Felicitation of dignitaries

Address ● Dr V Lokesh, Director, Kidwai Memorial Institute of Oncology

Special address ● Shri Dinesh Gundu Rao, Hon'ble Minister of Health, Government of Karnataka

Concluding remarks ● Dr GN Srinivasa, Director, Health and Family Welfare Services and Project Director (Reproductive and Child Health) (PDRCH)

PLENARY SESSION: THE ROLE OF POLICYMAKERS TO ACCELERATE ELIMINATION OF CERVICAL CANCER IN KARNATAKA

Story of survivorship ● Smt K Sharadamma, a cervical cancer survivor and champion

Open discussion with Members of Legislative Assembly (MLAs) ● Moderator: Dr Vishal US Rao, Dean, Centre for Academic Research at HealthCare Global (HCG) Cancer Centre

Group photo and pledge signing

PANEL DISCUSSION: CHALLENGES AND OPPORTUNITIES TO ACCELERATE PROGRESS TOWARDS CERVICAL CANCER ELIMINATION IN KARNATAKA

Panellists ● 1. Dr Uma Buggi, Deputy Director – NCDs, Government of Karnataka
2. Dr Sheela Mane, Prof DNB OBG K C General Hospital Bangalore & Vice Chair Elect, Indian College of Obstetrics and Gynaecology
3. Dr N Venkatesh, NBE Professor & Unit Head, Department of Obstetrics & Gynecologists, General Hospital, Jainagar
4. Ms Swarupa Kakumanu, Secretary, Mahati Trust
5. Ms Sri Priya Rao, Co-founder & CGO, Karkinos Healthcare

Moderator ● Ms Shama Karkal, Partner, Swasti Health Catalyst

Open discussion

Vote of Thanks ● Dr Preethi Jain, FIND

ANNEXURE II

Details of sessions and speakers

PLENARY SESSION: THE ROLE OF POLICYMAKERS TO ACCELERATE ELIMINATION OF CERVICAL CANCER

An open discussion guided by Dr Vishal US Rao who posed key questions to the audience of Members of Legislative Assembly (MLAs) on the role of policymakers in accelerating the elimination of cervical cancer. The objective of this discussion was to foster a discussion on:

- a) Opportunities for integrating cervical cancer elimination strategies including HPV DNA testing into the existing infrastructure in Karnataka
- b) The role of policymakers in enabling widespread access to HPV screening in Karnataka
- c) The importance of inter-sectoral collaboration in accelerating access to testing in the state

Moderator



Dr Vishal US Rao

Dean, Centre for Academic Research
at HealthCare Global Cancer Centre

Dr Vishal Rao is Dean for Centre of Academic Research at HealthCare Global (HCG) Cancer Centre, Bangalore, India. He is a member of the consultative group to Principal Scientific Advisor, Government of India and Member of Vision Group for Biotechnology, Government of Karnataka. He serves as the Chair of the Ethics Committee on Biotech with the Government of Karnataka and is a member of the ICMR Ethics Committee.

Elected representatives

**Dr Chandru Lamani**

Member of Legislative Assembly
Hirahatti Constituency, Gadag

**Dr Srinivas N T**

Member of Legislative Assembly
Kudligi Constituency, Vijayanagara

**Ms Nayana Motamma**

Member of Legislative Assembly
Mudigere Constituency, Chikmagalur

**Ms Karemma**

Member of Legislative Assembly
Devadurga Constituency, Raichur

**Mr Darshan Dhruvanarayana**

Member of Legislative Assembly
Nanjangud Constituency, Mysore

**Dr Anjali Hemant Nimbalkar**

Former Member of Legislative Assembly

PANEL DISCUSSION: CHALLENGES AND OPPORTUNITIES TO ACCELERATE PROGRESS TOWARDS CERVICAL CANCER ELIMINATION IN KARNATAKA

A panel discussion with panellists from the stakeholder ecosystem, being programme leadership, practitioners, civil society and private sector actors. The objective of this session was to foster a discussion on:

- a) A shared understanding of the WHO cervical cancer elimination (90-70-90) targets
- b) The role of the public and private sectors in improving access to cervical cancer screening with linkages to early treatment
- c) How Karnataka can benefit from new technologies and approaches, such as HPV testing and self-sampling to expand access
- d) Best practices and experience sharing across districts in Karnataka

Moderator



Shama Karkal

Partner, Swasti Health Catalyst

Shama is a partner at Swasti and has previously served as the non-profit organization's CEO. Shama represents Swasti at the Asia Pacific Alliance for Sexual and Reproductive Health and has been the Chair of the Steering Committee since September 2018. She has been worked on a range of thematic issues, her core expertise being working on community system strengthening with a focus on marginalized communities, including female sex workers and women living with HIV.

Speakers



Dr Uma Buggi

Joint Director-NCDs, Government of Karnataka

Dr Uma Buggi is the Joint Director – NCDs, Government of Karnataka. She is a consultant physician, geriatrician and is a fellow in rheumatology. She has over 30 years of experience in various capacities, beginning as a medical officer in a primary health centre, specialist at a district hospital and a senior consultant at tertiary care super-speciality hospitals. Her special interest is women's health.

Speakers



Dr Sheela Mane

Prof DNB OBG K.C. General Hospital, Bangalore, VICE CHAIR ELECT, Indian College of Obstetrics and Gynaecology

Dr Sheela V Mane is a Gynecologist and Obstetrician with more than 40 years of expertise.



Ms Swarupa Kakumanu

Secretary, Mahati Trust

Swarupa Kakumanu is a senior IT professional, with around 35 years of experience. She started her journey in the cervical cancer space with Dr Sundari Nandyala by establishing the Mahati Trust in 2011 with a goal to spread awareness and conduct population-based screening camps in Karnataka. The Trust has been conducting population-based screening in Chikkaballapur District for last 13 years and has conducted 400+ camps across 400+ villages, for around 30,000 women.



Dr N Venkatesh

NBE Professor & Unit Head, Department of Obstetrics & Gynecologists, General Hospital, Jainagar

Dr Venkatesh is a national Board-certified obstetrician/gynaecologist with more than 32 years of experience comprising of clinical practice both rural and urban areas at the national and international level. He is currently a NBE Professor & Unit Head at the Department of Obstetrics & Gynaecologists, Jainagar General Hospital.



Ms Sripriya Rao

Co-founder & CGO Karkinos Healthcare

Ms Sripriya Rao is the Chief Growth Officer at Karkinos and is leading the organization's Women's Wellness Initiatives, specifically cervical cancer elimination programmes. She has previously worked as Partner and Head for Organisation Change Management for Tata Consultancy Services, managing India, Asia Pacific, Australia and Middle East regions.



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