

Strategic Proposal for Comprehensive Gynecological Cancer Surveillance and Prevention in Low-Income Remote Rural Indian Populations

The current epidemiological landscape of gynecological malignancies in India necessitates a radical shift from centralized, capital-intensive care models toward decentralized, community-embedded frameworks. As the nation experiences a transition in its disease burden, cancer has emerged as a paramount public health challenge, with an estimated ^{1.57} million new cases projected by 2025.¹ Within this context, gynecological cancers—primarily affecting the cervix, breast, and ovaries—represent approximately ^{20–30%} of all female malignancies.³ In remote rural geographies, such as the Sundarbans in West Bengal or the tribal hinterlands of the Northeast, the disparity in care is stark; while ^{70%} of the population resides in rural areas, nearly ^{95%} of specialized oncological services are concentrated in urban hubs.⁴ This proposal delineates a multi-tiered strategic plan for surveillance and prevention, integrating the Snowflake Model of care delivery, institutionalized patient navigation, and narrative-based communication strategies to mitigate the profound socioeconomic and geographic barriers inherent in low-income settings.

Epidemiological Context and Subnational Burden Profiling

The distribution of gynecological cancers across India is not uniform, revealing distinct regional trends that demand tailored public health interventions. Data derived from the National Cancer Registry Program (NCRP) and GLOBOCAN indicates that the Northeast region remains the highest-incidence zone for cervical cancer.¹ Specifically, the Aizawl district in Mizoram and Papum Pare in Arunachal Pradesh record some of the highest age-standardized incidence rates (AAR) in the country, with figures for cervical cancer often exceeding ²⁷ per 100,000 women.¹ These high rates are inextricably linked to persistent Human Papillomavirus (HPV) infections, limited screening infrastructure, and distinct cultural determinants of health.³

Conversely, urbanized regions in Southern and Western India, such as Kerala and Maharashtra, are witnessing a faster rising trend in ovarian and uterine (endometrial) cancers.³ This shift is attributed to changing socioeconomic factors, including lower fertility rates, delayed childbearing, and higher metabolic risk factors like obesity and sedentary lifestyles.³ In Eastern

and Central India, the primary challenge remains the "Stage at Presentation" factor; over 60% of cervical cancer cases are diagnosed at locally advanced stages, significantly compromising long-term survival rates.³

Cancer Type	National Standing & Trends	Regional Hotspots	Clinical Outlook & Challenges
Cervical Cancer	Second most common cancer in women; leading cause of mortality. ³	Northeast India, rural Central and Southern pockets. ¹	Late-stage diagnosis (Stages III/IV) due to low screening coverage. ³
Ovarian Cancer	Third most common gynecological malignancy. ³	Metropolitan hubs (Delhi, Mumbai, Bangalore). ³	Largely asymptomatic early phases; high mortality-to-incidence ratios. ³
Uterine Cancer	Rising incidence (1–4.8% of female cancers). ³	Southern states and urban centers. ³	Linked to metabolic risk factors and lifestyle shifts. ³

The systemic "Screening Gap" remains the most significant impediment to reducing mortality.

National screening coverage is critically low, with only 1.3% of the rural eligible population having undergone regular cervical screening.³ This failure is not merely a logistical one but is rooted in "financial toxicity," where the long duration of treatment results in a catastrophic loss of income for families, compounded by social stigmas and a lack of awareness regarding the implications of the disease in its early stages.³

The Snowflake Model: A Decentralized Structural Re-Engineering

To bridge the chasm between tertiary excellence and rural reality, this proposal advocates for a "Distributed Care Model," conceptually organized as a "Snowflake Model".⁵ This framework moves away from the traditional "Apex-only" approach, where a single specialized hospital handles the entire patient journey, toward a system where smaller, interlinked centers handle diagnosis and care delivery closer to the patient's home.³

Four-Level Integrated Hierarchy

The model leverages existing public health infrastructure—Primary Health Centers (PHCs), Community Health Centers (CHCs), and District Hospitals—to create a tiered response system that ensures no patient must travel more than a few hours for a full suite of cancer care.³

Hierarchy Tier	Facility Type	Primary Responsibilities	Key Stakeholders
Level 1: Apex Centre	Tertiary/State Cancer Institute (Metro cities)	Strategy design, complex surgeries (robotic/physical), training lower tiers, complex DMGs. ³	Onco-surgeons, Medical Oncologists, NGO Liaison. ³
Level 2: State Centre	Govt. Medical College	Intervention implementation, dedicated oncology units, radiotherapy, vaccine planning. ³	Regional Psychologists, Public Health Workers. ³
Level 3: District Centre	District/Nodal Hospital	Clinical assessment, logistics, daycare chemotherapy, basic surgical procedures. ³	General Physicians, Nodal Officers. ³
Level 4: Village Centre	Panchayat/Sub-centre	Patient enrollment, Information, Education, and Communication (IEC), screening mobilization. ³	ASHA/AWW workers, DOT Social Workers. ³

The Snowflake Model operates through "Frugal Innovation" or *jugaad*, repurposing existing space and equipment within district hospitals to establish low-friction cancer units.¹⁵ By upskilling general medical officers and nurses to recognize early symptoms and manage basic chemotherapy, the system decongests tertiary centers and improves treatment compliance by reducing the travel burden on impoverished families.⁴ Evidence from decentralized

programs in Kerala indicates that such models can successfully screen thousands of individuals, identify hundreds of "suspects," and maintain a continuum of care that significantly reduces drop-off rates.¹⁷

Primary Prevention: National HPV Immunization and Public Awareness

Primary prevention of cervical cancer is centered on the nationwide rollout of the Human Papillomavirus (HPV) vaccine. In 2024, the Government of India initiated a major campaign targeting approximately 12 million girls aged 14 years.²⁰ This strategy aligns with the World Health Organization (WHO) 90–70–90 targets for 2030, aiming for 90% of girls to be vaccinated against HPV.²¹

Technological and Strategic Implementation

The vaccine rollout utilizes the "U-WIN" digital platform for real-time recording of vaccination events and the "eVIN" (Electronic Vaccine Intelligence Network) for tracking cold-chain logistics.²⁰ These tools are essential for maintaining accountability in remote rural populations where traditional paper-based records often fail. The government provides the quadrivalent vaccine (such as Gardasil or the indigenous Cervavac) free of charge at designated facilities, employing a single-dose schedule for adolescent girls, which has been shown to be protective and more feasible in low-resource settings.¹⁰

Despite these efforts, vaccine hesitancy remains a formidable hurdle. Factors such as misinformation, cultural and religious beliefs, and the stigma associated with sexually transmitted infections (STIs) hinder uptake.⁸ Resistance is often rooted in fears that the vaccine promotes early sexual activity or concerns regarding safety, despite extensive surveillance confirming a strong safety profile.²³ Addressing this requires a nuanced communication strategy that involves educators, religious leaders, and healthcare professionals to build community trust.⁸

Secondary Prevention: Resource-Stratified Screening Modalities

In rural, low-income settings where cytology-based screening is technically and financially prohibitive, the "Screen and Treat" strategy using Visual Inspection with Acetic Acid (VIA) is the recommended intervention for women aged 30–65.¹⁶ VIA involves applying dilute acetic acid to the cervix; precancerous lesions turn white ("aceto-white") and are immediately visible to trained health workers.²⁰

The Evolution Toward HPV DNA Testing

While VIA is highly effective for downstaging disease in underserved populations, the long-term national policy involves a transition toward HPV DNA testing as the primary screening tool.¹² This transition is supported by the emergence of affordable indigenous diagnostic kits and the establishment of "Preventive Oncology" departments in medical colleges to upscale capacity building.¹⁰ Current data shows that over ⁸⁶ million women have already undergone screening under the National Programme for Prevention and Control of Non-Communicable Diseases (NP-NCD), highlighting a sustained commitment to early detection at Ayushman Arogya Mandirs across the country.²⁰

The Narrative Paradigm: Social Marketing and the Buladi Campaign

A critical failure of traditional health communication in India is its reliance on abstract, statistical information that fails to resonate with rural cognitive frameworks.²⁶ This proposal leverages the "Narrative Paradigm"—the use of storytelling and mascots—to break the culture of silence surrounding gynecological health.³

Case Study: Buladi and Mascot-Based Marketing

The "Buladi" campaign, launched by the West Bengal State AIDS Control Society, serves as the premier case study for successful social marketing in India.²⁶ Buladi, a relatable rag-doll persona ("nyakrar putul"), functioned as a non-threatening, friendly "didi" (elder sister) who could discuss sensitive topics like condom use and sexual health in public spaces.³⁰

Element of Campaign	Mechanism of Persuasion	Strategic Outcome
Mascot Persona	Relatable, warm deportment; "intangible ambassador". ³⁰	High brand recall and trust among women and youth. ³³
Visual Rhetoric	Semi-urban and rural aesthetic; simple, bold messaging. ³⁰	Circumvented "Victorian morality" and social taboos. ²⁶
Storytelling	Narrative style presentation; interactive radio jingles. ²⁶	Demystified complex diseases; encouraged interpersonal

		communication. ³
--	--	-----------------------------

This approach humanizes health systems, moving from "selling a product" to "influencing a behavior".³⁵ By adopting a mascot for gynecological cancer—perhaps a wise "Grandmother" figure—the program can weave "glory tales" around early detection, effectively replacing fear and stigma with a narrative of survival and empowerment.³

Institutionalizing Empathy: The Patient Navigation Program (PNP)

Remote rural patients often experience the healthcare system as a "complex care-seeking terrain" where the absence of reliable first-contact points leads to disappointment, frustration, and impoverishment.³⁹ The Patient Navigation Program (PNP) is a community-based intervention designed to eliminate these barriers by providing personalized assistance through the cancer care continuum.⁴⁰

The KEVAT Model of Navigation

Developed by the Tata Memorial Centre (TMC) and the Tata Institute of Social Sciences (TISS) and SmartNirvana, the "KEVAT" program (meaning "boatman") is India's first accredited postgraduate diploma in patient navigation.⁴³ Navigators are trained in both clinical oncology and psychosocial aspects, allowing them to "handhold" patients from diagnosis through survivorship or palliative care.⁴⁴

Role Component	Description and Impact	Evidence Base
Barrier Identification	Identifies emotional, financial, and physical pain points using patient stories. ³	Reduced "Loss to Follow-up" in 4 lakh patients over three years. ⁴³
Empathy Training	3–4 hour on-site sessions for hospital staff to address the "paucity of time". ³	Improved patient satisfaction and adherence to doctor instructions. ³
Clinical Coordination	Guides patients through registration, tests, and pharmacy services. ⁴³	Reduction in simulation-to-treatment delays by up to 44%. ⁴⁸

Referral Management	Facilitates tele-consultations and logistics for distant centers. ⁴³	Enabled 100% functionality of TMH during the COVID-19 pandemic. ⁴³
---------------------	---	---

Patient navigation is not merely an altruistic service but a cost-effective tool that reduces treatment interruptions and increases clinical trial enrollment among disadvantaged populations.⁴⁹ By placing a "Navigator" at Level 3 and Level 4 centers, the Snowflake Model ensures that rural patients do not feel "lost" in a system characterized by high patient inflow and a sense of staff frustration.³

Operational Methodology and Design Thinking

To ensure the proposal is patient-centric, it employs "Stanford's Design Thinking" as a problem-solving methodology. This involves understanding a typical patient's journey—emotional, financial, and physical—through the lens of their own stories.³

Co-Designing the Patient Journey

The process involves multi-stakeholder sessions where hospital staff, NGOs, and patient survivors identify "gaps" in real-time. By inviting staff to suggest improvement areas, the system shifts toward a "self-discovery" of service failures, allowing for the design of an "ideal journey" that prioritizes the patient's dignity and readiness for treatment.³ This iterative, pragmatic approach mirrors the *jugaad* framework, focusing on efficient use of existing assets rather than requiring massive new investments.¹⁵

Case Study: NGO Participation in the Sundarbans

The efficacy of this distributed, narrative-driven model is evidenced by the "Naturemates" NGO in the Sundarbans.³ Operating in an area where basic medical facilities are historically "unheard of," Naturemates has successfully conducted large-scale camps in five different ranges, supported by the Forest Department and specialized doctors from Kolkata.³

Pilot Outcomes and Community Integration

- **Screening Success:** Over 600 women have been screened and treated for cervical and breast cancers.³
- **Awareness Reach:** Approximately 7,500 families have been sensitized through interactive camps that demystify the disease.⁵⁵
- **ASHA Training:** Frontline health workers (ASHAs) were empowered and trained to monitor cancer as part of the NCD program, ensuring that the local health system provides ongoing support.³
- **Longitudinal Care:** Camps were executed thrice in each location over four months to

identify positive recovery patterns and ensure healthy recovery, demonstrating the "triangulation" of care necessary for remote populations.⁵³

Global Mentorship and Capacity Building (IGCS Fellowship)

A significant bottleneck in rural oncology is the lack of specialized providers who can perform complex surgeries or manage advanced chemotherapy.⁹ The International Gynecologic Cancer Society (IGCS) addresses this through its Global Gynecologic Oncology Fellowship Program, a two-year structured training initiative designed for regions without formal oncology training.⁹

Training Capacity and Virtual Mentorship

The program utilizes a "Twinning" model, pairing low-resource setting institutions with international mentoring institutions in high-resource countries.⁵⁶ Key components include:

- **Project ECHO:** Monthly virtual tumor boards where fellows and mentors review cases and participate in ongoing learning.⁵⁶
- **Hands-on Training:** International mentors travel to the training site 2-3 times a year for surgical mentorship.⁵⁶
- **Workforce Capacity:** Since 2017, the program has graduated 52 fellows across 18 countries, serving as local "champions" to address cervical cancer in their home regions.⁵⁹

This global network ensures that even rural Indian centers have access to cutting-edge science and a standardized "gynecologic oncology toolkit" to address the specific needs of their institution.⁵⁶

Socio-Cultural Barriers and Mitigation Strategies

Barriers to screening in rural India are deeply categorized into socio-cultural, economic, psychological, and physical factors. A thematic analysis in remote villages of Karnataka identifies that despite the availability of free clinics, fewer than 10% of women consent to clinical breast examinations, and even fewer to cervical screening.⁶¹

Barrier Category	Specific Detractors	Mitigation Strategy (Cues to Action)

Socio-Cultural	Stigma, peer pressure, language barriers, embarrassment. ¹⁴	Local awareness rallies, flyer distribution, and involvement of local influencers. ⁶¹
Economic	Work priority (daily wagers), lack of insurance, financial insecurity. ¹⁴	Flexible screening times (early morning/late evening slots); awareness of PMJAY. ¹⁴
Psychological	Fear of outcomes (surgery/medicines), lack of trust in modern healthcare. ¹⁴	Continuous counseling about camp objectives; video consent involving trusted stakeholders. ⁶³
Physical	Distance to camps, agricultural/festival seasons, heavy rains. ¹⁴	Setting up outreach clinics in nearby schools or Anganwadi centers; optimizing calendars. ⁶³

Addressing these barriers requires a "holistic, community-centered approach" informed by models like the Health Belief Model (HBM), prioritizing accessibility and affordability to bridge the burden of cancer in rural India.⁶¹

Future Directions: Indigenous Innovation and 2030

Elimination Targets

The path to cervical cancer elimination in India by 2030 is predicated on the synergy of vaccination, screening, and timely treatment.²⁰ The introduction of universal HPV vaccination for schoolgirls and the transition to nationwide comprehensive screening for women aged 35–50 are critical policy goals.²²

The Role of Technology and Research

Digital health technology—including Artificial Intelligence (AI) for point-of-care diagnostics and telemedicine—can revolutionize prevention by expanding access in rural areas.¹⁶ Furthermore, the establishment of a Research Committee by IGCS and the development of rare tumor registries will improve data collection and the management of rare gynecological cancers like those of the vulva or vagina.⁶⁵ Investing in these preventive oncology resources is not only a health priority but a "smart economic strategy," where every dollar spent on early detection returns multiple times in societal and economic benefits.¹⁶

Synthesis and Recommendations for Policymakers

The successful implementation of this proposal requires a joint participation of the government health system, NGOs, local governing bodies, and private cancer institutes.³ The "Distributed Care" model, supported by trained "Patient Navigators," represents a patient-centric shift that brings standardized care closer to home and reduces the catastrophic financial burden of oncological disease.³

By leveraging India's tradition of storytelling and integrating it with modern behavioral change communication, the program can demystify cancer and encourage an aware population to participate in early detection rallies and clinical trials.³ The focus must remain on "Empathy," "Accountability," and "Grassroots Empowerment"—ensuring that the health and dignity of women remain a core national priority.³ Through the Snowflake Model and the expansion of programs like KEVAT and the IGCS fellowship, India can fundamentally transform its cancer care delivery, moving from a system of reactive crisis management to one of proactive, sustainable prevention.³

Works cited

1. Epidemiology of Cancer Incidence Estimates and Statistics 2000–2025: Analysis from National Cancer Registry Programme in India, accessed May 19, 2026, <https://www.ijmpo.org/assets/articles/2025/pdf/s-0044-1801767.pdf>
2. Cancer incidence estimates for 2022 & projection for 2025: Result from National Cancer Registry Programme, India - PMC, accessed May 19, 2026, <https://pmc.ncbi.nlm.nih.gov/articles/PMC10231735/>
3. Proposal_IGCS Cancer Plan_v01.docx
4. Delivery of cancer care in rural India: Experiences of establishing a rural comprehensive cancer care facility - PMC, accessed May 19, 2026, <https://pmc.ncbi.nlm.nih.gov/articles/PMC4477376/>
5. Snowflake Model: Redefining and Optimizing the Cancer Care ..., accessed May 19, 2026, <https://ascopubs.org/doi/pdf/10.1200/GO-24-00453>
6. Snowflake Model: Redefining and Optimizing the Cancer Care Delivery System in Tier 2 and Tier 3 Cities in India | JCO Global Oncology - ASCO Publications, accessed May 19, 2026, <https://ascopubs.org/doi/10.1200/GO-24-00453>
7. Cancer Burden in India 2024 25 Women Hit Hardest and Northeast Shows Alarming Rates, accessed May 19, 2026, <https://watchdog.healthbeat/cancer-burden-in-india-2024-25-women-hit-hardest-and-northeast-shows-alarming-rates>
8. HPV Vaccination in South Asia: Progress, Challenges, and the Path Forward - SCMPCR, accessed May 19, 2026, https://scmpcr.org/wp-content/uploads/2025/07/1.-HPV-Vaccination-Status-in-South-Asia_Rajni-Verma.pdf

9. The International Gynecologic Cancer Society (IGCS) Global Fellowship Program: Advancing Access to Gynecologic Oncology and Surgical Care Globally - PMC, accessed May 19, 2026, <https://pmc.ncbi.nlm.nih.gov/articles/PMC12912822/>
10. Eliminating Cervical Cancer in India: Challenges and Prospects - PMC, accessed May 19, 2026, <https://pmc.ncbi.nlm.nih.gov/articles/PMC12781406/>
11. Statistics - ICMR – National Institute of Cancer Prevention and Research, accessed May 19, 2026, <https://cancerindia.org.in/statistics/>
12. Perception, Practices, and Barriers to Cervical Cancer Screening Among Women in Rural and Urban Slums of Eastern India: A Community-Based Cross-Sectional Study - PMC, accessed May 19, 2026, <https://pmc.ncbi.nlm.nih.gov/articles/PMC12946771/>
13. OVARIAN CANCER DATA BRIEFING, accessed May 19, 2026, <https://worldovariancancercoalition.org/wp-content/uploads/2024/04/2024-Global-Priority.pdf>
14. (PDF) Barriers to screening of breast and cervical cancer among women in remote villages of Karnataka: an analysis using the Health Belief Model - ResearchGate, accessed May 19, 2026, https://www.researchgate.net/publication/395063945_Barriers_to_screening_of_breast_and_cervical_cancer_among_women_in_remote_villages_of_Karnataka_a_n_analysis_using_the_Health_Belief_Model
15. Developing a scalable high-value solution for cancer care and control in India - PMC, accessed May 19, 2026, <https://pmc.ncbi.nlm.nih.gov/articles/PMC12922463/>
16. Implementing cancer prevention strategies in India: progress, persistent challenges and future directions - PMC, accessed May 19, 2026, <https://pmc.ncbi.nlm.nih.gov/articles/PMC12950889/>
17. Developing a Model of Distributed, Decentralized Digitally Connected Cancer Control Program | JCO Global Oncology - ASCO Publications, accessed May 19, 2026, <https://ascopubs.org/doi/10.1200/jgo.18.96200>
18. A Distributed Cancer Care Model with a Technology-Driven Hub-and-Spoke and further Spoke Hierarchy: Findings from a Pilot Implementation Programme in Kerala, India - PubMed, accessed May 19, 2026, <https://pubmed.ncbi.nlm.nih.gov/36172676/>
19. A Distributed Cancer Care Model with a Technology-Driven Hub ..., accessed May 19, 2026, <https://pmc.ncbi.nlm.nih.gov/articles/PMC9810301/>
20. Cervical cancer elimination: India's multi-pronged approach | Omnicuris, accessed May 19, 2026, https://www.omnicuris.com/medshots/daily_updates/india-cervical-cancer-elimination-strategy-hpv-vaccination
21. Union Minister for Health and Family Welfare Shri Jagat Prakash Nadda Virtually Addresses Press Briefing at World Health Organization Headquarters; Reaffirms India's Commitment to Eliminating Cervical Cancer and Advancing Global Health Cooperation - Press Release: Press Information Bureau, accessed May 19, 2026,

- <https://www.pib.gov.in/PressReleaseDetailm.aspx?PRID=2235710®=3&lang=1>
22. NAMS task force report on cervical cancer, accessed May 19, 2026, <https://nams-annals.in/nams-task-force-report-on-cervical-cancer/>
 23. India, home to 25% of the world's cervical cancer deaths, launches nationwide HPV vaccination, accessed May 19, 2026, <https://www.gavi.org/vaccineswork/india-home-25-worlds-cervical-cancer-victims-launches-nationwide-hpv-vaccination>
 24. Barriers to HPV vaccination among adolescent girls in India: A scoping review - PMC, accessed May 19, 2026, <https://pmc.ncbi.nlm.nih.gov/articles/PMC12883130/>
 25. HPV vaccination hesitancy biggest hurdle in eliminating cervical & related cancers | Pune News - The Times of India, accessed May 19, 2026, <https://timesofindia.indiatimes.com/city/pune/hpv-vaccination-hesitancy-biggest-hurdle-in-eliminating-cervical-related-cancers/articleshow/126550965.cms>
 26. (PDF) Brand 'Bula-di': A review of HIV/AIDS campaign in West Bengal - ResearchGate, accessed May 19, 2026, https://www.researchgate.net/publication/285910655_Brand_'Bula-di'_A_review_of_HIVAIDS_campaign_in_West_Bengal
 27. Storytelling as instrument of communication in health contexts - Redalyc, accessed May 19, 2026, <https://www.redalyc.org/journal/5645/564568058008/html/>
 28. From Recall to Redressal: A Deconstructional Content Analysis of the Buladi HIV/AIDS Campaign in West Bengal | Request PDF - ResearchGate, accessed May 19, 2026, https://www.researchgate.net/publication/228177833_From_Recall_to_Redressal_A_Deconstructional_Content_Analysis_of_the_Buladi_HIVAIDS_Campaign_in_We
[st_Bengal](https://www.researchgate.net/publication/228177833_From_Recall_to_Redressal_A_Deconstructional_Content_Analysis_of_the_Buladi_HIVAIDS_Campaign_in_We)
 29. Breaking Silence through Media: An Analysis of Effective AIDS Awareness Campaigns in South India – IIHS Knowledge Gateway, accessed May 19, 2026, <https://iihs.co.in/knowledge-gateway/breaking-silence-through-media-an-analysis-of-effective-aids-awareness-campaigns-in-south-india/>
 30. O&M Kolkata's 'Buladi' outdoor campaign for HIV/AIDS awareness strikes a chord, accessed May 19, 2026, <https://www.exchange4media.com/out-of-home-news/o-m-kolkata8217-s-'buladi'-outdoor-campaign-for-hiv/aids-awareness-strikes-a-chord-16280.html>
 31. AWARENESS IS NOT JUST A WORD - Telegraph India, accessed May 19, 2026, <https://www.telegraphindia.com/opinion/awareness-is-not-just-a-word/cid/1025703>
 32. Looking at a culture specific model of HIV intervention: The instance of the Buladi campaign in West Bengal, India - ResearchGate, accessed May 19, 2026, https://www.researchgate.net/publication/282491508_Looking_at_a_culture_specific_model_of_HIV_intervention_The_instance_of_the_Buladi_campaign_in_West

Bengal India

33. executive summary, accessed May 19, 2026, https://nkc.ac.in/AQAR-23-24/AQAR_2023_24_TY_BMS_B_MARKETING_SEM_VI_83.pdf
34. "Mascots": The Pragmatic Agents of Communication - rjelal, accessed May 19, 2026, <http://www.rjelal.com/14.1.26/19-22%20Dr.%20Vinodhini%20Chinnaswamy.pdf>
35. (PDF) The role of mascots in branding and consumer engagement: Insights from Indian advertising - ResearchGate, accessed May 19, 2026, https://www.researchgate.net/publication/387514946_The_role_of_mascots_in_branding_and_consumer_engagement_Insights_from_Indian_advertising
36. Storytelling in Pregnancy and Childbirth: An Integrative Review of the Literature - PMC - NIH, accessed May 19, 2026, <https://pmc.ncbi.nlm.nih.gov/articles/PMC9792230/>
37. (PDF) The Impact of a Mass Media Campaign on HIV/AIDS Knowledge and Behavior Change in North India: Results from a Longitudinal Study - ResearchGate, accessed May 19, 2026, https://www.researchgate.net/publication/248947305_The_Impact_of_a_Mass_Media_Campaign_on_HIVAIDS_Knowledge_and_Behavior_Change_in_North_India_Results_from_a_Longitudinal_Study
38. Enhancing Social Impact: A Study of Social Marketing in India - RSIS International, accessed May 19, 2026, <https://rsisinternational.org/journals/ijrsi/articles/enhancing-social-impact-a-study-of-social-marketing-in-india/>
39. Patient navigation pathway and barriers to treatment seeking in cancer in India: A qualitative inquiry | Request PDF - ResearchGate, accessed May 19, 2026, https://www.researchgate.net/publication/258428117_Patient_navigation_pathway_and_barriers_to_treatment_seeking_in_cancer_in_India_A_qualitative_inquiry
40. Patient Navigation in Cancer Treatment: A Systematic Review - PMC - NIH, accessed May 19, 2026, <https://pmc.ncbi.nlm.nih.gov/articles/PMC11063100/>
41. Patient Navigation in Cancer Treatment: A Systematic Review - Scholarly Commons @ CWRU, accessed May 19, 2026, <https://commons.case.edu/cgi/viewcontent.cgi?article=1727&context=facultyworks>
42. Tata Memorial Centre (TMC) to train Cancer Patient Navigators of Indonesia - PIB, accessed May 19, 2026, <https://www.pib.gov.in/PressReleasePage.aspx?PRID=1814500>
43. Tata Memorial Centre successfully trains two batches of Indonesian Cancer Patient Navigators - PIB, accessed May 19, 2026, <https://www.pib.gov.in/PressReleaseDetailm.aspx?PRID=1872993>
44. KEVAT - T.M.C. - Tata Memorial Hospital, accessed May 19, 2026, <https://tmc.gov.in/KEVAT>
45. KEVAT - HOMI BHABHA CANCER HOSPITAL & RESEARCH CENTRE, PUNJAB, accessed May 19, 2026, <https://hbchs.tmc.gov.in/KEVAT>

46. Kevats help patients at Tata Memorial navigate cancer care system - The Hindu, accessed May 19, 2026, <https://www.thehindu.com/news/cities/mumbai/kevats-help-patients-at-tata-memorial-navigate-cancer-care-system/article30143486.ece>
47. Patient navigation services for cancer care in low-and middle-income countries: A scoping review - PMC, accessed May 19, 2026, <https://pmc.ncbi.nlm.nih.gov/articles/PMC6797131/>
48. Reducing delays in radiotherapy initiation post CT simulation: a quality improvement study from a rural cancer center in India - ecancer, accessed May 19, 2026, <https://ecancer.org/en/journal/article/2116-reducing-delays-in-radiotherapy-initiation-post-ct-simulation-a-quality-improvement-study-from-a-rural-cancer-center-in-india/pdf>
49. Patient navigation for American Indians undergoing cancer treatment: utilization and impact on care delivery in a regional health care center - PMC, accessed May 19, 2026, <https://pmc.ncbi.nlm.nih.gov/articles/PMC3112306/>
50. Impact of Patient Navigation on Cancer Diagnostic Resolution among Northwest Tribal Communities - PMC, accessed May 19, 2026, <https://pmc.ncbi.nlm.nih.gov/articles/PMC3610770/>
51. Cost-Effectiveness of a Patient Navigation Program to Improve Cervical Cancer Screening, accessed May 19, 2026, <https://www.ajmc.com/view/cost-effectiveness-of-a-patient-navigation-program-to-improve-cervical-cancer-screening>
52. Nature Mates | Discover NGOs, accessed May 19, 2026, <https://discover.give.do/E1G/nature-mates/>
53. Health & Hygiene - Nature Mates, accessed May 19, 2026, <https://new.naturemates.org/health-hygiene/>
54. Medical Camps - Kolkata - Nature Mates, accessed May 19, 2026, <https://naturematesindia.org/medical-camps/>
55. Health & Hygiene - Nature Mates, accessed May 19, 2026, <https://naturematesindia.org/health-hygiene/>
56. IGCS GYNECOLOGIC ONCOLOGY, accessed May 19, 2026, https://cdn.ymaws.com/members.igcs.org/resource/resmgr/IGCS_Global_Curriculum_and_M.pdf
57. Global Gynecologic Oncology Fellowship Program - IGCS, accessed May 19, 2026, <https://igcs.org/global-curriculum-mentorship-program/>
58. IGCS Flagship Global Curriculum & Mentorship Program - TogetHER for Health, accessed May 19, 2026, https://togetherforhealth.org/wp-content/uploads/COVID-SRH_webinar_13May20_Mary_IGCS_FINAL.pdf
59. Challenges and Opportunities in the Treatment of Invasive Cervical Cancer in Low-Resource Settings: A Survey of the International Gynecologic Cancer Society Fellowship Programs | JCO Global Oncology - ASCO Publications, accessed May 19, 2026, <https://ascopubs.org/doi/10.1200/GO-25-00015>
60. Welcome to IGCS 2024 | International Gynecologic Cancer Conference,

- accessed May 19, 2026, <https://igcs2024.kenes.com/welcome-to-igcs/>
61. Barriers to screening of breast and cervical cancer among women in remote villages of Karnataka: an analysis using the Health Belief Model - ecancer, accessed May 19, 2026, <https://ecancer.org/es/journal/article/1980-barriers-to-screening-of-breast-and-cervical-cancer-among-women-in-remote-villages-of-karnataka-an-analysis-using-the-health-belief-model>
 62. Barriers to screening of breast and cervical cancer among women in remote villages of Karnataka: an analysis using the Health Belief Model - ecancer, accessed May 19, 2026, <https://ecancer.org/en/journal/article/1980-barriers-to-screening-of-breast-and-cervical-cancer-among-women-in-remote-villages-of-karnataka-an-analysis-using-the-health-belief-model/abstract>
 63. Barriers to screening of breast and cervical cancer among women in remote villages of Karnataka: an analysis using the Health - ecancer, accessed May 19, 2026, <https://ecancer.org/en/journal/article/1980-barriers-to-screening-of-breast-and-cervical-cancer-among-women-in-remote-villages-of-karnataka-an-analysis-using-the-health-belief-model/pdf>
 64. Engaging tribal communities for improving people's health: lessons from rural Melghat, India, accessed May 19, 2026, <https://pmc.ncbi.nlm.nih.gov/articles/PMC12201932/>
 65. Global burden of gynaecological cancers in 2022 and projections to 2050 — JOGH, accessed May 19, 2026, <https://jogh.org/2024/jogh-14-04155/>
 66. Two New IGCS Initiatives Announced at the 2025 Annual Global Meeting, accessed May 19, 2026, <https://igcs.org/new-initiatives/>
 67. IGCS Influence Grows in Global Policy Discussions, accessed May 19, 2026, <https://igcs.org/igcs-influence-grows-in-global-policy-discussions/>