



**Integrated approaches
for women's cancers:
Opportunities to advance
health for women**



Authors

Mohamed Afifi,
World Health
Organization Eastern
Mediterranean Regional
Office, Egypt

Maribel Almonte Pacheo,
World Health
Organization,
Switzerland

Jihan Azar,
World Health
Organization Eastern
Mediterranean Regional
Office, Egypt

Partha Basu,
International Agency
for Research on Cancer,
France

Matilda Byström,
World Health
Organization Eastern
Mediterranean Regional
Office, Egypt

Anna Cabanes,
Global Focus on Cancer,
USA

Arunah Chandran,
International Agency
for Research on Cancer,
France

Michelle Chevalier,
US Department of State
Bureau of Global Health
Security & Diplomacy /
PEPFAR, USA

Smiljka de Lussigny,
Unitaid, Switzerland

Khalifa Elmusharaf,
University of Birmingham
Dubai, UAE

Annah Espejo,
Union for International
Cancer Control,
Switzerland

Emma Feeny,
The George Institute for
Global Health, Australia

Tara Friebel-Klingner,
Rutgers Global Health
Institute, USA

Nazik Hammad,
University of Toronto,
Canada

Somesh Kumar,
Jhpiego, India / USA

Lamia Mahmoud,
World Health
Organization Eastern
Mediterranean Regional
Office, Egypt

Amon Marwiro,
Jhpiego, Botswana

Maura McCarthy,
Jhpiego, USA

Deborah Mukherji,
Clemenceau Medical
Centre Hospital, UAE

Miriam Mutebi,
Aga Khan Hospital,
Kenya

Mary Nyangasi,
World Health
Organization,
Switzerland

Lydia Pace,
Brigham and Women's
Hospital/ Harvard
Medical School, USA

Sebastien Poix,
University of Limerick,
Ireland

Anne Rositch,
Johns Hopkins
Bloomberg School of
Public Health, USA

Mutumba Songiso,
Levy Mwanawasa
University Teaching
Hospital, Zambia

Gill Schierhout,
The George Institute for
Global Health, Australia

Tracey Schissler,
Jhpiego, USA

Kathleen Schmeler,
MD Anderson Cancer
Center, USA

Kristine Sørensen,
Global Health Literacy
Academy, Denmark

Zuzanna Tittenbrun,
Union for International
Cancer Control,
Switzerland

Giuseppe Troisi,
World Health
Organization Eastern
Mediterranean Regional
Office, Egypt

Sabrina Zucchello,
Union for International
Cancer Control,
Switzerland

Table of contents

Foreword	6
Executive summary	8
What are integrated approaches and why they matter	10
Lived experience: A testimony from Kenya	11
Defining integrated approaches for women’s cancers	13
Integrated approaches for women’s cancers amongst civil society organisations: A study across Francophone Africa, Latin America and Asia-Pacific regions	14
Integration of women’s cancers in service delivery	18
Women-centred cervical cancer care: Lessons learned and recommendations from integrated delivery of cervical cancer services	19
Integrating breast cancer early detection and cervical cancer screening: Opportunities, considerations, and challenges	26
Health literacy for women’s cancers	32
From diagnosis to survivorship: Addressing fertility, sexuality, and mental well-being in women’s cancer journey	34
What can we learn for women’s cancers from integrated approaches to NCDs?	38
Integration for women’s cancers in health systems	40
Integration of cervical cancer within the health system	41
Women’s cancers in national cancer control plans	46
Optimising the cancer workforce to achieve women-centred care	51
Integrated approaches to cervical and breast cancer: Addressing the workforce capacity challenges	54
The case for investing in women’s cancer interventions: The Eastern Mediterranean region	60
Key takeaways on integration for women’s cancers	64



Spotlights

Leveraging integration to raise awareness and provide supportive care for women's cancers in Singapore

Increased acceptability of HPV vaccination through integration with cervical cancer screening in Cameroon

Integration of cervical cancer screening and treatment in HIV programmes in Botswana

Integrating breast and cervical cancer screening in a single visit in Nicaragua

Advancing health equity for women through integration of cervical cancer screening in Zambia

Leveraging health information systems to facilitate integration and support client navigation

HIV and cervical cancer in African NCCPs

Integrating breast and cervical cancer: The Rwanda Women's Cancer Early Detection Programme

The Presidential Initiative on Women's Health in Egypt

Integrating breast and cervical cancer in India across the health system

Foreword

Integration has become a familiar term, often referred to across many different areas of global health, and in particular recently to the field of women's cancers. However, it is a broad term that does not necessarily engender the same meaning across all stakeholders. Perhaps it is best kept as such, as a loose phrase, that identifies the opportunity to combine or coordinate efforts across different areas of the health system, diseases, delivery mechanisms and funding for example. However, clarity and focus on integration is needed in order to truly understand how, where and when to integrate, to find efficiencies and to understand how to make the most of the available and limited resources to deliver effective cancer control around the world.

UICC has taken forward this publication to highlight the experience of its members and many organisations around the world, and marry this to the global dialogue, strategies, and environment.

There is a wealth of experience and existing examples from the cancer community, where integration is just par for the course, a necessity or a reality, yet clear evidence for the impact and the opportunity of integration is limited. This in turn limits the scale-up of effective and efficient solutions, and perpetuates siloed approaches.

This publication is intended to put a stake in the ground, to explore where things stand, particularly in terms of addressing women's cancers – and with a specific focus on breast and cervical cancer.

It seeks to showcase current practices, shed light on the opportunities and evidence where integration does exist, and highlight the potential role of integrated approaches for women's health, particularly as an enabler to achieve the targets outlined in the global strategies and initiatives on breast and cervical cancer.

It is not intended to be a roadmap as to how to integrate services, or to say that integration is a must. However, in the writing of this publication, it has been clear that integration is one important tool to achieve greater people-centred care across health systems. The publication also highlights that integration, and the need for it, does not only relate to those aspects of the health system that connect directly with those seeking care, but reaches far into the complexities of each of the health system building blocks – governance, information systems, financing, the health workforce.

UICC hopes that this publication will bring greater attention to integration in cancer control, supporting further dialogue and inspiring action – in generating the evidence needed to understand and implement effective integration, in ensuring that guidance and technical assistance is available to all those seeking to implement integration whether it is at the level of communities, service delivery or policy, and in changing mindsets and approaches from siloes to integration across all dimensions, including strategies, funding or indicators.

Dr Kirstie Graham

Director, Capacity Building
Union for International Cancer Control



Executive summary

This publication explores the topic of integration for women's cancers, providing insights from the perspective of those accessing care, to service delivery and across the building blocks of the health systems. It brings together key points for consideration, examples of good practice, and highlights areas where greater attention is required.

Integrated approaches are interventions that combine disease-specific initiatives aiming to join up multiple public health programmes, using existing opportunities to reach girls and women throughout their life course and strengthen health systems to provide holistic, comprehensive, quality services that address women's health needs. In this publication, the term 'integrated approaches' can refer to aspects of health service delivery, as well as health systems and any instance where cross-sector collaboration can contribute to improving women's health.

Successful examples of integration in women's cancers at the service delivery level include the incorporation of cervical cancer prevention within HIV or HPV immunisation programmes, demonstrating the effectiveness of embedding preventive services within broader platforms for improved service access. Although the integration of breast and cervical cancer services has not been extensively studied, there is a growing case for addressing them jointly in preventive services and health promotion. Integration is also highlighted with respect to health literacy, alongside the need to ensure that women undergoing cancer treatment are routinely provided with information about fertility issues that can arise as a result of treatment, integrative care and management of side effects.

Other opportunities for integration within health systems are evident, particularly in governance, healthcare workforce development, and financing.

From a governance perspective, there appears to be a lack of guidance on how to integrate, with limited reference to opportunities for integration within international and national guidelines or strategies. A recent global review of national cancer control plans demonstrates that they rarely address integration for women's cancers, besides some mention of integration from immunisation programmes and cervical cancer. This lack of guidance contrasts with the practice, in particular of civil society organisations, for which another recent study reveals that the vast majority routinely integrate services for women's cancers, in particular in their public education activities, policy advocacy and in raising the voice of people with lived experience.

Integrated approaches are potentially a key opportunity to address the shortage of healthcare workers and support the workforce to provide women-centred care. This can take place at the primary healthcare level, for instance by providing concurrent training for healthcare workers, or building capacity on screening breast and cervical cancer, for instance. However, this must be resource and context appropriate, and complemented by strong information systems and referral pathways to secondary level care.

Considering integration in the financing of women's cancer care could also contribute to greater efficiencies in the delivery of cancer control, and improved patient outcomes. Some funders, be it governments or international bodies, are more and more conscious of the importance of integrated approaches, either by funding programmes that are wider than a specific disease, or by encouraging integrated care within disease-specific programmes.

In summary, integrated approaches support more gender-responsive healthcare systems, can help addressing financial and human resource challenges and importantly, can enable women to access services in a way that is adapted to their unique needs at all levels of care, leading to improved prevention, diagnosis, treatment and care. Women's needs should be at the centre of all efforts to integrate services at a national level as well as within global health programmes, with services and policies informed by their views and experiences.

Despite a growing awareness of their importance, integrated approaches for women's cancers remain understudied, and it is the hope that this publication can contribute to accelerate the adoption of relevant strategies to address women's cancers in a holistic way, and pave the way to clarify evidence-based practices.





What are integrated approaches and why they matter

Integrated approaches are key in enabling wider access to services, improving patient-centred care, and ultimately contributing to improved health outcomes. Similarly, a lack of integrated approaches in areas such as funding mechanisms or service delivery can contribute to women being diagnosed at later stages, increase out-of-pocket expenditure and in the end, worsen health outcomes.

Although there is a growing understanding of the importance of integrated approaches, they are not implemented consistently across health systems. They are however common practice amongst civil society organisations due to the fact that they tend to inherently adopt client and women-centred approaches and search for synergies to maximise their resources and reach.

Lived experience: A testimony from Kenya

Sally Agallo is an advocate and survivor based in Kenya. In 1999, she was diagnosed with HIV, in 2007 with cervical cancer, and in 2010 she underwent treatment for colon cancer. In an interview, she shared her experience of these multiple diagnoses and her perspective on integration.



Please describe your experience in accessing care for HIV and cervical cancer

“In the early 2000s, when I was first diagnosed with HIV, it was generally not part of the health discussion that people with HIV are more susceptible to HPV infection. During this time I would describe the medical system in Kenya as being very siloed. Despite being on antiretroviral drugs for eight years and regularly visiting the clinic to monitor my HIV diagnosis, it was only during a routine screening provided by my employer that I discovered that I had stage II cervical cancer. Cervical cancer screening and HIV programmes were very separate areas. Given that my immune system was already compromised, I was unable to undergo chemotherapy and unfortunately, my treatment required a complete hysterectomy. If caught earlier, this could have been potentially avoided.”

As someone with lived experience, what are your thoughts on integration in various programmes?

“As the link between HPV and HIV is more and more recognised, many programmes have begun integrating HIV and cervical cancer screening services in health clinics. From my experience and according to what other women around me have shared, I see integration as an advantage because people will often avoid getting screened proactively until the opportunity to be screened is presented. This avoidance is caused by many obstacles, especially from the stigma associated with a positive diagnosis, high cost and limited availability.”

Which areas do you think would benefit from a greater integration in Kenya?

“I mainly see three areas that would benefit from greater integration: health education, screening and universal health coverage (UHC):

- There is a great need for more education on HPV and cervical cancer being integrated into basic health education in health clinics. Although public opinion about HPV and cervical cancer is shifting, more knowledge on the topic is needed to shift the negative stigma and allow for women to seek screening if they experience symptoms.



I feel if services could be more integrated, women could be screened opportunistically and more cases could be caught at an earlier stage.

- During COVID-19, vaccines were provided at the local clinic where antiretroviral drugs are distributed to HIV patients and this was a major contributor to more people getting vaccinated.
- Integrating services could also be more cost-effective for the women themselves given that cost is a major barrier to accessing these services. Women who have to visit multiple clinics might not go at all because of the cost associated with transportation and the test itself, these services should be integrated into routine health interventions and ultimately into UHC.”

Defining integrated approaches for women's cancers



Mary Nyangasi, Technical Officer, Cancer (Global Breast Cancer Initiative Lead & Integrated Women's Cancers), World Health Organization

In 2022, 9.6 million women were diagnosed with cancer with 4.3 million dying from it. Breast cancer is the most common type of cancer in women (23.8%) and together with cervical cancer they contribute to 30.7% of all cancers in women. The WHA resolution 70.12 on 'Cancer prevention and control in the context of an integrated approach'¹ called for the integration and scale up of cancer prevention and control in line with the 2030 agenda for Sustainable Development Goals. Population-level cancer control is complex and requires significant health system capacity and investments.²



Integrated approaches are interventions that combine disease-specific initiatives aiming to join up multiple public health programmes, using existing opportunities to reach girls and women throughout their life course³ and strengthen health systems to provide holistic, comprehensive, quality services that addresses women's health needs.

The European Framework for Action on Integrated Health Services Delivery⁴ called for action across four domains: to identify people's health needs and partner with populations and individuals, ensure that service delivery processes are responsive to needs, improve performance and facilitate strategic management of transformations.

Integration addresses the multifaceted and intersecting health, sociocultural, gender and economic issues that women face creating opportunities to galvanise action and expand access to cancer services.⁵ Integrated approaches could provide platforms to mobilise new resources and use existing resources more effectively. Building on lessons learnt from the HIV epidemic response, there is a need to expand and diversify partnerships to position comprehensive prevention and control of women's cancers within the broader sexual and reproductive health (SRH) and rights, women's empowerment and social justice framework. Effective collaboration and coordination, comprising productive relationships throughout and between the health system, patients and communities, trained and incentivised health workers with access to clear guidelines are essential facilitators of integration.⁶ All levels of service delivery can play a role in provision of integrated services for women's cancers. However, the success and modalities of integration in service delivery are often context-specific and will depend on characteristics of the health systems in which they are embedded.

Where authors are identified as personnel of the World Health Organization, the authors alone are responsible for the views expressed in this article and they do not necessarily represent the decisions, policy, or views of the World Health Organization.

References

1. World Health Organization. Cancer prevention and control in the context of an integrated approach. World Health Assembly Resolution 70.12.2017.
2. Kostecky B, Stevens L. Cancer control planning by international cancer control partnerships: an exploration of planning practices and resources in diverse settings. *Lancet Glob Health*. 2018;6(Suppl 1). doi: 10.1016/S2214-109X(18)30096-2.
3. Engels D, Hotez PJ, Ducker C, et al. Integration of prevention and control measures for female genital schistosomiasis, HIV and cervical cancer. *Bull World Health Organ*. 2020 Sep 1;98(9):615-24. doi: 10.2471/BLT.20.252270. Epub 2020 Jul 6.
4. WHO Euro Regional Office. The European Framework for Action on Integrated Health Services Delivery.
5. Brown AF, Ma GX, Miranda J, Eng E, Castille D, Brockie T, Jones P, Airhihenbuwa CO, Farhat T, Zhu L, Trinh-Shevrin C. Structural Interventions to Reduce and Eliminate Health Disparities. *Am J Public Health*. 2019 Jan;109(S1):S72-S78. doi: 10.2105/AJPH.2018.304844.
6. Watt N, Sigfrid L, Legido-Quigley H, et al. Health systems facilitators and barriers to the integration of HIV and chronic disease services: a systematic review. *Health Policy Plan*. 2017 Nov;32(Suppl 4) –iv26. doi: 10.1093/heapol/czw149.

Integrated approaches for women’s cancers amongst civil society organisations: A study across Francophone Africa, Latin America and Asia-Pacific regions



Sabrina Zucchello, Senior Manager, Capacity Building, Union for International Cancer Control

Annah Espejo, Coordinator, Capacity Building, Union for International Cancer Control

Civil society organisations (CSOs) play an important role in cancer control, be it in raising awareness and demand generation, supporting patients and caregivers in their journey, advocating for accessible and quality care, or building capacity of health care workers (HCWs). With their knowledge of communities and by holding governments accountable through advocacy, CSOs are particularly well positioned to bridge service delivery in a women-centred way and contribute to supporting their country to achieve the World Health Organization (WHO) targets for women’s cancers.

A survey conducted by UICC between July 2022 and May 2023 across organisations from the Francophone Africa, Latin America and Asia-Pacific regions, sought to understand the role of CSOs in women’s cancers, and to explore the extent to which CSOs utilise integrated approaches in delivering these services and activities. It also explored CSOs’ perceptions on the feasibility to achieve the WHO targets in their context, and their engagement in the development of national policies and strategies.

The survey was conducted in conjunction with three in-person regional workshops focused on women's cancer, and made available in three languages (French, Spanish, and English). 68 responses were gathered, from 64 organisations (34 APAC, 20 LATAM, 14 AFRO) in 42 countries composed in majority of NGOs, national cancer societies, coalitions, and patient groups. These organisations represented a purposive sample, including leading national breast or/and cervical cancer-focused organisations across these 42 countries.

CSOs and integrated approaches for women's cancers

The vast majority of CSOs surveyed (86.8%) reported that their services and activities for breast and cervical cancer are integrated to some extent, with this being the case for 100% of organisations in Francophone Africa, 85% in Asia-Pacific and 75% in Latin America. Integration was particularly common in awareness raising, prevention and screening.

More broadly, respondents perceived important synergies and opportunities for integration in vaccination programmes, national education, primary health care (PHC) and SRH.



'Integrated approaches in women's cancers means we need to bring in thought leaders from reproductive health, environment, water and sanitation, agriculture sectors and more. I advocate for a whole of society and whole of government approach in treating cancer.'

Quote from survey respondent

The role of CSOs in advancing women's cancers

In all three regions, respondents perceived that CSOs' main role in advancing women's cancers was in educating the general public, patients and policy makers about cancer, advocating for UHC and policy change and delivering supportive care and information to patients.

A notable regional difference is that CSOs seem to play a more important role in delivering supportive care in APAC than in the other two regions surveyed.

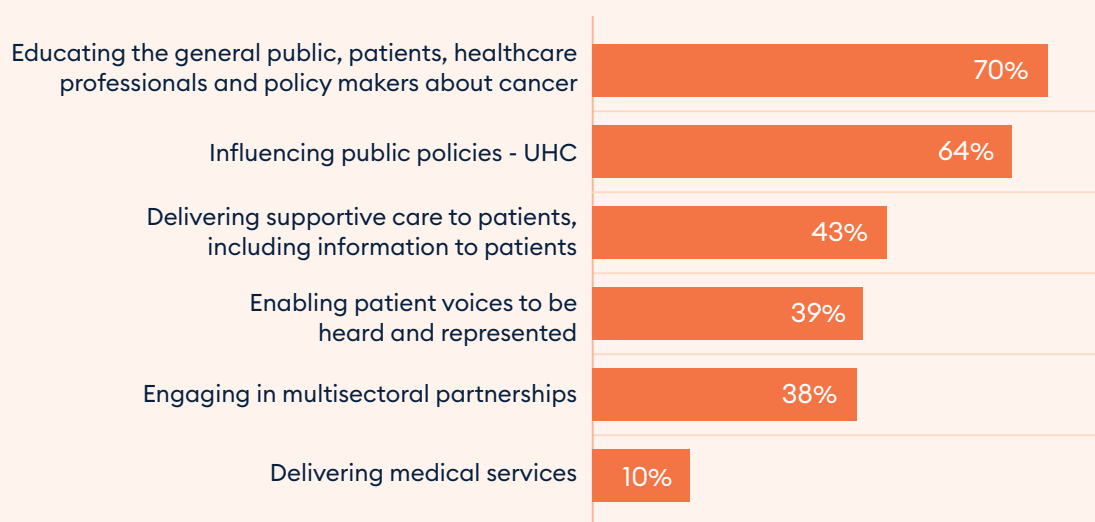
These findings regarding the role of CSOs in women's cancers were also reflected in a recent landscaping of the role of CSOs in HPV vaccination¹, in which both quantitative and qualitative data highlighted the critical role of cancer CSOs in advocacy, awareness raising and community mobilisation.



↑
Society for Cancer Advocacy and Awareness Kuching (SCAN) on outreach in rural Malaysia



According to you, what is the main role that CSOs play in advancing women's cancers?



Percentage of total respondents

Valuing the unique role of CSOs in women's cancers

Through the proximity to women and the knowledge of the communities in which they operate, CSOs are uniquely placed to implement women-centred approaches in a way that is relevant to the context in which they operate. Most CSOs have decided to adopt integrated approaches and address breast and cervical cancer education and screening jointly, not only to maximise limited resources, but because this offers natural touchpoints in the community to enable women to access services throughout their life course. These practices, largely understudied, are an important source of knowledge for further research.

Their role in representing the voices of women at a national level and advocating for women's cancers is also fundamental to ensure gender-responsive and equitable policies, and in this regard, it was reassuring to learn that CSOs surveyed reported a level of involvement and engagement in the drafting and/or implementation of their national cancer control plans (NCCPs).

Finally, CSOs play an important role in linking different stakeholders to the communities and in this sense, can become facilitators of integrated approaches at a larger scale.

As indicated by the survey, CSOs highlighted the need for advocacy guidance and training, support for navigating appropriate resources, and networking opportunities to be able to grow in this role.



Spotlight

Leveraging integration to raise awareness and provide supportive care for women's cancers in Singapore

Since 1964, the Singapore Cancer Society (SCS) has implemented prevention and screening campaigns, and supported cancer patients in the country. Their preventive health programme promotes free screening for breast, cervical and colorectal cancers.

In their efforts to ensure women access services, the SCS holds regular awareness campaigns for women, in an integrated manner. It creates communication materials highlighting breast, cervical and ovarian cancers together, organises conferences and webinars to build health literacy amongst women and direct them to appropriate screening services. Awareness campaigns are supported by women cancer patients and survivors from the Bishan Ladies Group, an opportunity that enable them to share experiences, offer emotional support to each other, and organise outings for other women.

Through the Look Good Feel Better programme, the Ladies Group helps other women undergoing treatment to rediscover their self-confidence, for instance by organising beauty workshops.

By addressing women through information campaigns on both breast and gynaecological cancers, SCS maximises chances to share the relevant information on women's cancers with their audience.

References

1. World Health Organization. Cancer prevention and control in the context of an integrated approach. World Health Assembly Resolution WHA70. 2017.



Integration of women's cancers in service delivery

This section explores the potential of integrated approaches to increase equitable access to preventive services for women. It highlights examples of integrated approaches in noncommunicable diseases (NCDs) and how these can apply to women's cancers. This can include fostering collaboration across health priorities and communities, overcoming health system capacity constraints, and adopting a patient-centred approach at all levels of care. Successful examples of integration in women's cancers include cervical cancer integration and HIV or HPV immunisation programmes, and demonstrates the effectiveness of embedding preventive services within larger platforms for improved access to services.

Although integration of breast and cervical cancers has not yet been widely studied, there is an increased case for addressing them jointly in preventive services as well through health promotion. Integrated approaches in survivorship is another important area to consider, yet often neglected, that would improve the quality of life of women dealing with cancer and ensure they can make more informed choices.

Women-centred cervical cancer care: Lessons learned and recommendations from integrated delivery of cervical cancer services



Somesh Kumar, Senior Director, Technical Leadership and Innovation, and Country Director India, Jhpiego

Michelle Chevalier, US Department of State Bureau of Global Health Security & Diplomacy / PEPFAR

Smiljka de Lussigny, Programme Manager, Unitaid

Maura McCarthy, Women's Cancer Team Lead, Jhpiego

Tracey Schissler, Implementation Director, Jhpiego

Amon Marwiro, Country Director Botswana, Jhpiego

Maribel Almonte Pacheo, Implementation Scientist, Cervical Cancer Elimination Initiative, World Health Organization

Background

Women often experience bias in accessing cancer care due to overlapping inequities, including due to age, race, ethnicity, socio-economic status, and gender identity.¹ These inequities can restrict women's opportunity to access preventive and curative services for cancers in the way and manner that is most suited to their needs and wants.

While the definitive solution for addressing these inequities lies in structural changes in policies, economy and society, there are a few key strategies that can help make cancer care more centred around women's needs in the short-term. One of these key strategies is integrated delivery of cancer services to women, which holistically supports the health needs of women and reorients the health system to view and prioritise women as 'clients' rather than focusing on the 'conditions' it is designed to prevent or treat.^{1,2}

In 2022, cervical cancer was the fourth most frequently diagnosed cancer among women, as well as the third leading cause of cancer mortality in women worldwide, with a disproportionately high burden in low- and middle-income countries (LMICs), largely due to suboptimal coverage of primary as well as secondary prevention services.³ Despite the availability of highly effective technologies and interventions for primary and secondary prevention for cervical cancers for many years, these technologies have not yet equitably reached girls and women, especially in LMICs. One of the key contributors to the low access and utilisation of preventive services for cervical cancers is the non-availability of these services in a comprehensive and convenient manner. To address this, efforts have been made to integrate preventive services for cervical cancer into other health service delivery platforms.

These efforts have demonstrated that **integrated delivery of prevention services for cervical cancer leads to increased access and utilisation of these services.**^{4,5,6} This article shares some of the practice examples and insights from interventions aimed at delivering integrated cervical cancer services both at the service delivery level and within the different components of the health system.



Spotlight

Increased acceptability of HPV vaccination through integration with cervical cancer screening in Cameroon

Since the introduction of routine HPV vaccination in Cameroon in 2020 by the Ministry of Health, hundreds of thousands of doses of HPV vaccines have expired due to high levels of vaccine hesitancy and misinformation in the population. The Ministry of Health called on all national stakeholders to assist in promoting and administering vaccines. In 2022, the Cameroon Baptist Convention Health Services (CBCHS) introduced a mother-daughter pilot programme to support rollout of HPV vaccination, testing the approach in two rural communities. A total of 613 women were screened for HPV, and 1892 girls aged nine to 14 were vaccinated (three girls were vaccinated for every one woman screened).

One of the major lessons learned from the initial rollout was when the HPV vaccine is presented as a standalone service, the population is hesitant, however, when HPV vaccination was offered in conjunction with cervical cancer screening, acceptability was increased.

Based on the positive results from the 2022 pilot, and approval of the vaccination of boys in 2023, Cameroon is now implementing a 'Mother-child approach' with the inclusion of boys in the delivery model.

Integration of service delivery: At the level of a provider, health facility or within a network of facilities^{7,8,9}

Both HIV and family planning (FP)/reproductive health (RH) programmes have been able to take the services closer to women by offering HIV testing and FP/RH services in community/outreach-based settings and at primary health centres with good success.¹⁰ Integration of counselling and cervical cancer screening services in FP/ RH and HIV service delivery platforms, especially HPV based molecular testing, allows for self-collection of samples by women, which takes care closer to women and has the potential to greatly enhance the access to screening services for women who are unable to travel to the health facility for multiple reasons.⁴

- **Integration at the level of provider:** Providers at all levels of service delivery can play a role in integration. Frontline workers, inclusive of community healthcare workers (CHW) can employ integrated messaging and/or counselling for cervical cancer screening services, and also deliver HPV self-sampling kits. Integration throughout the spectrum of providers requires considerations around task-sharing, task-shifting, and planned enhancement of skills and tools. Careful consideration should be given to ensure that providers have the time to deliver the additional services along with carrying out their originally assigned responsibilities. Task-analysis of responsibilities of health-care workers can help in optimising their workload.

Nurses, midwives and physicians providing FP/RH or HIV services, for example, can provide counselling, screening, and management of women testing positive in cervical screen cases. Service delivery tools such as job aids, counselling tools, guidelines, and standard operating procedures (SOPs) can help enhance capacity and ensure services for cervical cancer are seamlessly integrated and delivered alongside other services.

- **Integration at the level of health facility:**^{6,11} Integration of cancer screening services within the health facility means reengineering the flow of the women accessing FP/RH or HIV services within these facilities and/or designing/renovating the facilities to enable delivery of such integrated services. To adapt the patient/client flow, deploying tactics such as posters and visible guidance indicating the availability of screening services, dispensing information during registration regarding cervical screening services, and ensuring, as much as possible, proximal or co-location and same day cervical cancer screening services to the FP/RH or HIV clinics are essential.



Spotlight

Advancing health equity for women through integration of cervical cancer screening in Zambia

Learning from the incorporation of cervical cancer screening into HIV/AIDS and maternal and child health services in LMICs shows that in-clinic integration of these services generally results in high uptake of screening, and screen-and-treat models can successfully provide treatment to more than 85% of women who need it.¹

A long-standing initiative in Zambia, leveraging national HIV services to develop a cervical cancer screening programme, found that for every 46 HIV-positive women screened for cervical cancer, a woman's life was saved who otherwise would likely have died of undetected cervical cancer.² This programme was subsequently scaled out to include HIV-negative women, and to cover different geographic areas in the country, furthering population-level impact.

1. Sigfrid L, Murphy G, Haldane V, et al. Integrating cervical cancer with HIV healthcare services: A systematic review. *PLoS One*. 2017;12(7).doi: 10.1371/journal.pone.0181156.
2. Parham GP, Mwanahamuntu MH, Sahasrabudde VV, et al. Implementation of cervical cancer prevention services for HIV-infected women in Zambia: measuring program effectiveness. *HIV Ther*. 2010;4(6):703-22. doi: 10.2217/hiv.10.52.

- **Integration within the network of facilities:^{8,9}**

Integration is also possible by referral of women for cervical cancer services from the primary point of contact at the FP/RH and/or HIV clinics. For this to be effective, it is important to design and operationalise a functional network of facilities. For referral networks to be strong, providers of different facilities in the network are trained on, and equipped with, SOPs and tools for referrals. To ensure quality and performance, there are measurement and client tracking tools that allow the health system to assess the effectiveness and efficiency of the referral process. Illustrative examples of operationalised referral networks include PHC systems in countries where frontline health workers are the first point of contact for referral. CHW or frontline workers like nurses and midwives at community or outreach-based settings, when delivering FP/RH services or health education, can inform/counsel women about the importance and availability of screening services for cervical cancer at the nearby PHC facility. Hospitals also contribute to strong referral networks. An example is hospital provision of referral slips with details of the clinic if the woman expresses willingness to access these services. Similarly, a woman visiting an HIV clinic for anti-retroviral treatment can be counselled for screening services for cervical cancer and if willing, can be handed a referral slip with details of the clinic and vice-versa. Use of other mechanism of patient navigation systems, including digital tools, should be explored to support the women in accessing care in a timely manner.

Important considerations for integration of preventive services for cervical cancer in other service delivery platforms

Woman-centred: When integrating screening services for cervical cancer with other services, it is critical to ensure that the woman is at the centre of the service delivery design. Efforts for integrated care delivery should ensure the following:

- Active and leading role of women and communities in designing services.
- Availability and quality of care of the services being provided is not compromised.
- Services are accessible to women in an equitable manner.
- There is no increase in waiting times for women accessing services.
- Privacy for women, both at the service delivery level and in the data collection systems, is not compromised.

System and context appropriate: At the same time, every health system, and the context within which it works is different. Therefore, efforts for integration should be cognisant of unique attributes, especially the capacity of the system, to ensure effective integration of services. For example, if a system is experiencing difficulty delivering quality FP/RH services due to shortage of human resources or other infrastructural issues, it may not be prudent to include screening for cervical cancer services before strengthening the capacity of the system. Similarly, in contexts where screening for cervical cancer is associated with socio-cultural stigma, it is critical to ensure the privacy of women when integrating cervical cancer services in FP/RH clinics.

Provider-sensitive: The maximum burden of delivery of any additional service is eventually borne by the providers who are required to deliver these services. Hence, any effort for integrated service delivery should explore the feasibility of absorption of the additional workload by the provider concerned.

Assessments of the provider workload, existing competencies, needs for additional training, the enabling nature of the environment s/he works in and the perspectives of the providers should be undertaken before initiating the design and introduction of integrated services.

Conclusion

Integration of preventive services for cervical cancer within other service delivery platforms such as FP/RH and HIV and others is a feasible and effective strategy to increase women's equitable access to cervical cancer services. Integration also makes the service more woman-centred, thereby helps in improving the quality and equity of the services. However, for the integration to be effective and sustainable, it is important to integrate not only at the service delivery level but throughout all the components of the health system including the policy and performance framework, information system, financing, and leadership and governance.



Spotlight

Integration of cervical cancer screening and treatment in HIV programmes in Botswana

In Botswana, Jhpiego supported the strengthening of the National Strategic Plan For Cervical Cancer (2017–2021), and through CDC funding took a health systems-strengthening approach to the integration of cervical cancer screening into service delivery for women living with HIV (WLHIV). From a workforce perspective, an integrated in-service training curriculum was developed for health providers. From an access and service delivery perspective, PEPFAR partners worked with Infectious Disease Care Clinics to initiate specific screening services for eligible WLHIV. The National Cervical Cancer Prevention Programme updated its tools and training to counsel and refer women at high risk of cervical cancer who are 'never-screened' to cervical screening facilities.

Through these expanded cervical screening services, the programme assisted in identifying WLHIV who are not on treatment and linking them to care, to reach 80% of HIV-positive women in the catchment. Additionally, cervical cancer programming was also integrated into HIV prevention services for men. The programme collaborated with medical male circumcision programmes so that men who access HIV prevention services are asked to reach out to the females in their lives to be screened for cervical cancer. As a result, there was a significant increase in eligible WLHIV screened for cervical cancer. Women seeking cervical cancer screening who did not know their HIV status were identified and thus referred for HIV testing services. Between 2015 and 2020, cervical cancer 'screen and treat' services were scaled to 57 facilities, 175 healthcare providers were trained, more than 100,000 were screened for cervical cancer for the first time and 69% of women with pre-cancerous lesions were treated the same day.



References

1. Ginsburg O, Vanderpuye V, Beddoe AM, Bhoo-Pathy N, Bray F, Caduff C, et al. Women, power, and cancer: A Lancet Commission. *Lancet*. 2023 Sep. Available from: [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(23\)01701-4/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(23)01701-4/fulltext)
2. Chowdhury R, Nuccio O, Njuma M, Meglioli A, White H, Makulaet J, et al. Integrating cervical cancer screening and preventive therapy into reproductive health networks: notes for the field. *J Obstet Gynaecol East Cent Africa*. 2015;27(1):7–11.
3. World Health Organization Regional Office for the Western Pacific. Strategic framework for the comprehensive prevention and control of cervical cancer in the Western Pacific Region 2023–2030. Manila: WHO Regional Office for the Western Pacific; 2023.
4. White HL, Steinhaus M, Sebany M, Gregowski A, Moon P, Blumenthal PD. Integrating cervical cancer prevention services with voluntary family planning programs: insights from the field. Washington, DC: Population Services International and International Center for Research on Women; 2019.
5. Were E, Nyaberi Z, Buziba N. Integrating cervical cancer and genital tract infection screening into mother, child health and family planning clinics in Eldoret, Kenya. *Afr Health Sci*. 2010 Mar;10(1):58–65.
6. Parham GP, Mwanahamuntu MH, Kapambwe S, Muwonge R, Bateman AC, Blevins M, et al. Population-level scale-up of cervical cancer prevention services in a low-resource setting: development, implementation, and evaluation of the cervical cancer prevention program in Zambia. *PLoS One*. 2015 Apr 17;10(4).
7. Narasimhan M, Yeh PT, Haberlen S, Warren CE, Kennedy CE. Integration of HIV testing services into family planning services: a systematic review. *Reprod Health*. 2019 May 29;16(Suppl 1):61.
8. Sigfrid L, Murphy G, Haldane V, Chuah FLH, Ong SE, Cervero-Liceras F, et al. Integrating cervical cancer with HIV healthcare services: a systematic review. *PLoS One*. 2017 Jul 21;12(7).
9. Huchko MJ, Bukusi EA, Cohen CR. Building capacity for cervical cancer screening in outpatient HIV clinics in the Nyanza province of western Kenya. *Int J Gynaecol Obstet*. 2011;114(2):106–10.
10. Shiferaw N, Salvador-Davila G, Kassahun K. The single visit approach as a cervical cancer prevention strategy among women with HIV in Ethiopia: successes and lessons learned. *Glob Health Sci Pract*. 2016;4(1):87–98.
11. Narasimhan M, Yeh PT, Haberlen S, Warren CE, Kennedy CE. Integration of HIV testing services into family planning services: a systematic review. *Reprod Health*. 2019 May 29;16(Suppl 1):61.
12. Khozaim K, Orang'o E, Christoffersen-Deb A, Itsura P, Oguda J, Muliro H, et al. Successes and challenges of establishing a cervical cancer screening and treatment program in western Kenya. *Int J Gynaecol Obstet*. 2014;124(1):12–8.

Integrating breast cancer early detection and cervical cancer screening: Opportunities, considerations, and challenges



Anna Cabanes, Senior Advisor, Global Focus on Cancer

Lydia Pace, Associate Professor of Medicine, Brigham and Women's Hospital/Harvard Medical School

Tara Friebel-Klingner, Assistant Research Professor, Rutgers Global Health Institute

Mutuba Songiso, Breast Surgeon, Levy Mwanawasa University Teaching Hospital

Anne Rositch, Adjunct Associate Professor, Johns Hopkins University

Why integrate

Integration of breast and cervical cancer early detection seems to be an efficient approach to shift the stage at diagnosis and reduce mortality of both cancers. Whilst there are multiple examples of integration in practice, there is little evidence to evaluate the different approaches to guide further implementation or formal recommendations. The objective of this commentary is to describe key opportunities, challenges and considerations of taking an integrated approach to the early detection of cervical and breast cancer.

Opportunities for integration

Cervical and breast cancers are the two leading causes of female cancer deaths in women in LMICs.¹

In 2018 and 2021, WHO launched two initiatives – the Cervical Cancer Elimination Initiative² and the Global Breast Cancer Initiative³ – with the aim to strategically guide and coordinate population-based efforts that could lead to the elimination of cervical cancer as a public health problem and to a reduction of breast cancer mortality globally. Both initiatives consist of three pillars that address prevention, early detection, and treatment of cervical and breast cancers. Although WHO recommends the simultaneous implementation of the three pillars to achieve a maximum impact, with early interventions a significant number of deaths from either of the cancers could be prevented.

In recent years, improvements have been seen in screening coverage and earlier stages of diagnosis. However, most countries are far from reaching WHO's benchmarks for cervical cancer of 70% of women screened using a high-performance test by the age of 35², and again by the age of 45; and for breast cancer of 60% of invasive cancers to be stage I or II at diagnosis.³ Integrating health promotion, and breast and cervical cancer early detection could potentially increase the uptake of cancer screening and reduce the stage at diagnosis, thereby improving outcomes.

Integration, to be effective, needs to be engineered through adoption of a systems thinking methodology, based on a woman's care seeking journey, early detection recommendations, and system's capabilities. The primary question to consider when planning for the integration of early detection is what outcome is intended, to then define what kind of integration is needed and how the integration will be organised.

Integration can occur across multiple levels, from the entire healthcare system, one or more facilities and providers, to communities and individuals. There is a growing number of real-world examples of the combined implementation of early detection of cervical and breast cancers leveraging the co-location of early detection services, i.e. counselling, clinical breast exam (CBE) and HPV/VIA based screenings for breast and cervical cancer at the PHC level.

One example is the integration of services in decentralised primary health facilities offering cervical cancer screening (i.e. HPV testing, VIA, see & treat, and/or cytology, counselling, and awareness) and breast cancer early detection (CBE, counselling, and awareness). There are a few interventions in Rwanda⁴, Nicaragua, Zambia, Ghana, and India that have used this approach to integration.



Summary of recommendations for breast and cervical cancer early detection

	Health promotion	Early diagnosis of breast cancer	Screening for breast cancer	Screening for cervical cancer
Age range	Any age	Any age	45-70*	30-49*
Intervention	Education, counselling	Clinical exam and diagnostic workup	NA	NA
Frequency of screening	NA	NA	Every one or two years	Depends on age and screening test used
Method of screening	NA	NA	Mammography	NA
Level of care the service is provided	Community and PHC more frequently	Secondary, tertiary, most frequently	Primary, secondary, tertiary	Primary, secondary, tertiary

* Depending on the country, screening for breast cancer can range from 40 to 74 years old, and screening for cervical cancer from 21 to 65.

At the healthcare facility level, integration can take a variety of forms, from standalone services for cervical and breast cancer that leverage both programmes referring women to the other when needed, such as in Rwanda⁴, while others may choose to provide both services combined. For example, a One Stop Women's Clinic in a primary level hospital in Lusaka, Zambia⁵, which focuses on early diagnosis of breast cancer, added HPV-based cervical cancer screening and referral treatment services. This created an opportunity to simultaneously detect cervical cancer precursors and early-stage breast cancer, thereby increasing the chances of survival for the affected women.

At the individual level, lay navigation to screening or early detection services, one-on-one education activities, and patient reminder systems are good examples of integration. At the community level, integration can take place providing both breast and cervical cancer awareness in existing platforms of the health system, like home-visits of frontline workers, outreach clinics, or screening campaigns.

There are real world examples of **integration at the provider level** that result in more efficient use of resources and facilitate providers' work. One example is to provide concurrent education for cervical cancer screening and breast cancer early detection for the healthcare workforce - nurses, clinical, PHC workers - as part of their training/ educational programmes. An intervention implemented in Rwanda conducted training for community health workers (CHW) and clinicians on breast and cervical cancers early detection at the health centres and hospitals. These training sessions included cervical cancer screening as well as a breast health curriculum, and a mix of teaching, supervised practice, and regular mentored visits. In an integrated intervention in Nicaragua, healthcare providers used a single clinical form for cervical and breast health.





Spotlight

Integrating breast and cervical cancer screening in a single visit in Nicaragua

In Nicaragua, health is a constitutional right and coverage is broad, with the Ministry of Health serving 86% of the general population using a ‘family and community health’ model. Historically, Nicaragua has had an effective cervical cancer screening programme, and the Ministry of Health decided to leverage this to address the growing burden of breast cancer by integrating services for the early detection of breast cancer in the cervical cancer screening programme.

The programme started in two regions, Granada and the city of León, focusing on training doctors and nurses from all health units by providing a four-module course on how to implement a breast health programme. A unique clinical screening form for cervical cancer and breast cancer was also created.

The programme also addressed women’s knowledge and awareness through educational talks, videos, and flip charts in health centres. During the sessions, they recruited women who were having a Pap smear to also get a CBE. The programme found that when women were aware of the importance of both things, it was easier for them to accept care.

The programme now covers the entire country by integrating the two services into a single visit at the primary care level. Although the programme has seen good results, it needs to continue working to demystify breast cancer and address the population’s cultural barriers, so that women can assume more control over their health. As this integrated model is quite new in Nicaragua, the programme will continue to obtain data to see how much it can help reduce mortality in the future for both cancers.

With regard to measures, integration offers the opportunity to develop and maintain health information systems that capture data across the cancer screening continuum for both breast and cervical cancer, which can be used to understand risk factors, epidemiology, burden and trends of these cancers. **Robust health information systems not only help in implementing the programmes (e.g. tracking the screen positives), but also to ensure quality of services.** This can be enhanced with referral and navigation systems for women's cancers to efficiently and effectively refer women with abnormal results to the next level of care as needed (from precancerous cervical lesions to breast concerns), as well as track referrals and follow ups.

Challenges and considerations

Breast and cervical cancer are very different diseases, and recommendations for screening and early diagnosis are not uniform across age groups and screening intervals. These differences in age groups have led to challenges in issuing formal recommendations regarding integration of breast and cervical cancer early detection.

Breast and cervical cancer incidence peak at different ages. Breast cancer incidence starts rising at ages 30-35 years, and peaks at 40-50 years in Asia or Africa, while in most Western countries it is 60-70 years. Cervical cancer is most frequently detected at 35-44 years with a peak at 50 years.

However, screening for cervical cancer in women in their 30s greatly reduces the cervical cancer burden, while also providing an opportunity to increase breast cancer awareness and education so as women age into their 40s and 50s they can recognise early signs of breast cancer and present promptly to a health centre for early detection.

This is particularly important in countries where organised breast cancer screening is not currently a feasible option, thus early identification of breast cancer signs and symptoms by women themselves and their PHC providers is of utmost importance.

It is also key to consider women's perspectives in providing integrated services for breast and cervical cancers early detection. There are notable barriers regarding breast and cervical cancer screening and early diagnosis which include social support, spousal support, stigma, religious beliefs, cultural beliefs, accessibility, attitudes/fears, lack of awareness, cultural values, medical and non-medical costs, and others.

Many studies have reported that cervical cancer screening is generally acceptable for women. However, there is a lack of evidence on the specific acceptability of integrated services. The literature on factors promoting breast and cervical cancer early detection in an integrated manner shows a fragmentation by country, population groups and by type of cancer screening.⁶ An intervention implemented in Zambia, found that the women's level of satisfaction with breast, cervical and HIV services offered together at a primary level clinic showed that more than 97% of the participants were satisfied with having HIV and HPV tests as they waited for their breast assessments.⁷ In Rwanda, women experienced both benefits and burdens as they underwent breast evaluation after cervical cancer screening but, overall, they reported a positive experience.⁸ However, in a similar intervention implemented in Nicaragua⁹, adding a CBE to cervical cancer screening was challenging since, culturally, the examination of the breasts is not readily accepted or embraced.

In this intervention, participating women did not see the need to add a breast exam in the absence of signs or symptoms of breast problems. Additional evidence is needed to assess women's preferences regarding integration.

Integrated cancer control is a single label that can refer to a great number of different processes, and whilst it may lead to improved efficiency of services, and reduced overall cost¹⁰, it is essential to recognise that creating integrated care needs investment in developing expertise, time, and resources before there is any efficiency pay-off.¹¹

Optimal strategies for integrated breast and cervical cancers early detection in resource-limited settings have not yet been widely studied and the outcomes remain uncertain. The appropriate strategies for integration will depend heavily on disease burden and health system resources (particularly primary care facilities' capacity to take on additional services, robust referral systems, and capacity for prompt cancer diagnosis and treatment) and will have to consider other competing health needs of each population. Integration will require a systems thinking approach, ideally building upon and strengthening existing healthcare delivery processes and resources.

References

1. International Agency for Research on Cancer. Global Cancer Observatory [Internet]. Lyon: International Agency for Research on Cancer; 2021 Available from: <https://gco.iarc.fr/en>
2. World Health Organization. Global strategy to accelerate the elimination of cervical cancer as a public health problem [Internet]. Geneva: World Health Organization; 2020. Available from: <https://iris.who.int/handle/10665/336583>. License: CC BY-NC-SA 3.0 IGO
3. World Health Organization. Global breast cancer initiative implementation framework: assessing, strengthening and scaling up of services for the early detection and management of breast cancer [Internet]. Geneva: World Health Organization; 2023. Available from: <https://iris.who.int/handle/10665/366385>. License: CC BY-NC-SA 3.0 IGO
4. Pace LE, Hagenimana M, Dusengimana JV, et al. Implementation research: including breast examinations in a cervical cancer screening programme, Rwanda. *Bull World Health Organ*. 2023 Jul 1;101(7):478-486. doi: 10.2471/BLT.22.289599.
5. Songiso M, Pinder LF, Munalula J, et al. Minimizing Delays in the Breast Cancer Pathway by Integrating Breast Specialty Care Services at the Primary Health Care Level in Zambia. *JCO Glob Oncol*. 2020 Jun;6:859-865. doi: 10.1200/GO.20.00083.
6. Vallone F, Lemmo D, Martino ML, et al. Factors promoting breast, cervical and colorectal cancer screenings participation: A systematic review. *Psychooncology*. 2022 Sep;31(9):1435-1447. Published online 2022 Jul 12. doi: 10.1002/pon.5997.
7. Unpublished data from Matero – Songiso.
8. Pace LE, Fata AM, Cubaka VK, et al. Patients' experiences undergoing breast evaluation in Rwanda's Women's Cancer Early Detection Program. *Breast Cancer Res Treat*. 2023 Dec;202(3):541-550. doi: 10.1007/s10549-023-07076-x. Epub 2023 Aug 30. PMID: 37646967.
9. Unpublished data from Movicaner Nicaragua.
10. Leichsenring K. Developing integrated health and social care services for older persons in Europe. *Int J Integr Care*. 2004;4:1-15.
11. Raus K, Mortier E, Eeckloo K. Challenges in turning a great idea into great health policy: the case of integrated care. *BMC Health Serv Res*. 2020;20:130.

Health literacy for women's cancers



Kristine Sørensen, Founder, Global Health Literacy Academy

Cancer literacy refers to the knowledge, motivation, and competencies to access, understand, appraise, and apply cancer information to make judgement and decisions in everyday life about prevention, treatment, and self-care to maintain and improve quality of life during the life course.¹ It empowers patients to manage its causes, risk factors, prevention, early detection, treatment options, and support services. It also enables people to act, as it involves the ability to find, understand, evaluate, and use cancer-related information to make informed and shared decisions about their participation in trials and personalised, integrated care solutions. Importantly, it can help them navigate the healthcare system, communicate effectively with healthcare providers, and understand their treatment options and potential side effects.²

Integrated approaches to improving health literacy for women's cancers, such as breast, ovarian, cervical, and uterine cancers, involve a combination of strategies that address education, support, access, and communication. Education programmes may include patients, oncologists, nurses, dietitians, and mental health professionals to provide coordinated, person-centred cancer prevention, treatment options, and survivorship.

An example is The Pathways Women's Cancer Teaching Project which trains cancer survivors to provide educational programmes for physicians, nurses, other hospital professionals and the community. Designated support may be facilitated by oncology nurses and peer support groups to assist women in understanding their diagnosis, treatment options, and follow-up care, while also focusing on emotional support. Digital communication can be integrated in the form of mobile apps providing personalised health information, reminders for medication and appointments, symptom tracking and online services offering consultations and follow-up care. Validated health literacy approaches to improve quality of communication includes the Teach-Back method, Ask me 3, and use of decision aids. Likewise, it is of importance to integrate cultural sensitivity in integrated care as gender and ethnicity bias are common barriers in women's cancer journeys.

Applying the cancer literacy lens to women's cancers can help save time, costs, and lives. Yet, much more can be done. Making health literacy a policy priority in the context of the development of national and international cancer control plans will help pave the way. An example includes the EU's Beat Cancer strategy.³ Improving health literacy at an individual level may empower women to understand the importance of vaccinations, regular screenings, and to recognise the signs and symptoms of women's cancers, prompting them to seek medical attention. These integrated approaches aim to create a supportive, informative, and accessible healthcare environment for women facing cancer, ultimately improving their health literacy, enhancing their ability to make informed, shared decisions, and improving overall health and quality of life outcomes.



↑
An outreach campaign in Selangor,
Malaysia, led by the University of Malaya.

References

1. Sørensen K, Van den Broucke S, Fullam J, Doyle G, Pelikan J, Slonska Z, et al. Health literacy and public health: A systematic review and integration of definitions and models. *BMC Public Health* [Internet] 2012 [cited 2019 Sep 6];12:80.
2. Sørensen K, Makaroff LE, Myers L, Robinson P, Henning GJ, Gunther CE, et al. The call for a strategic framework to improve cancer literacy in Europe. *Archives of Public Health* 2020;78.
3. Sørensen K. Health literacy is an emerging strategic priority in national cancer control plans in the EU. *J Cancer Policy* [Internet] 2020 [cited 2020 Oct 20];26:100255.

From diagnosis to survivorship: Addressing fertility, sexuality, and mental well-being in women's cancer journey



Partha Basu, Head, Early Detection Prevention and Infections Branch, IARC

Arunah Chandran, Public Health Officer, Early Detection Prevention and Infections Branch, IARC

Advances in the early detection and treatment of cancer have improved patient survival and reduced mortality rates globally. However, the journey through cancer care and survivorship has distinct challenges and considerations, especially for women. It is becoming increasingly clear that a comprehensive approach to cancer care, one that addresses not only the disease but also the unique challenges and needs of a woman, is essential. **To bring the woman rather than the disease at the centre of care an integrated approach that encompasses various aspects of quality of life (QoL) and RH issues is very much needed. Such woman-centred care cuts across individual cancer sites.** Consequences of cancer care such as premature ovarian failure (POF) and the pressing need for fertility preservation strategies, the complexities of sexual dysfunction, premature menopause and the vasomotor symptoms such as hot flashes that often accompany it are a few such examples. The concept of organ preservation in surgical treatment, focusing on its profound impact on patients' SRH, psychosocial well-being and QoL are some of the aspects of care that receive much less attention, especially in resource-limited settings.

Considering that a fifth of gynaecological cancers affects women under 40 years of age, fertility preservation is a crucial consideration for women of reproductive age facing cancer treatment. RH is also one of the main areas of concern for the inclusion, safety, and autonomy of women in the approach to their treatment.¹ Selected endometrial cancers and cervical cancers may be treated conservatively to preserve child-bearing in young patients without compromising oncologic outcomes. Retaining the ability of childbearing during their cancer journey helps restore a woman's sense of gender identity perceived to be lost or threatened during diagnosis and treatments. Despite guidelines advocating the need to routinely include fertility counselling in cancer management, studies show that fertility counselling was often disregarded. An integrated approach in cancer care should include discussions about fertility preservation options before treatment initiation.

Sexual dysfunctions are highly prevalent in cancer patients, though often ignored in routine care. Nearly two third of female cancer patients experience sexual dysfunction, which is as high as 78% among those treated for gynaecologic cancers.² Unless properly addressed, this may lead to depression, body image problems, low self-esteem, feelings of inadequacy, and relationship issues. Proactive multi-disciplinary strategies involving psychosocial counselling for the woman and her partner, pharmacotherapy when appropriate, supportive measures, cognitive behavioural therapy and exercise are evidence-based interventions to tackle sexual dysfunctions and should be incorporated in management guidelines.³

Another neglected area in women with cancer is management of menopausal symptoms, temporarily or permanently induced by cancer treatment. Vasomotor menopause symptoms can cause considerable discomfort and affect QoL of a woman. There have been longstanding debates about safety of hormone replacement therapy (HRT) in patients treated for hormone-sensitive tumours (e.g., breast or endometrial cancer). While for non-hormone dependent gynaecologic and other cancers, there is no contraindication for HRT, its use in breast cancer patients is not recommended due to higher risk of recurrence or contra-lateral breast cancer.⁴ No increased recurrence was observed after short-term use of HRT in endometrial cancer patients.⁵ A personalised approach to tackle post-menopausal symptoms for women undergoing cancer care using alternative approaches when HRT is contra-indicated is essential.

Another area of concern among women undergoing a cancer journey is the potential over-treatment leading to medical and psychosocial implications.⁶ Breast cancer in younger women is often associated with worse survival outcomes. This may lead to many of the women undergoing more aggressive treatment solely based on age considerations, especially in settings without the facilities to detect molecular markers. Women who undergo mastectomy without breast reconstruction report a loss of perceived femininity, depression, anxiety, and interpersonal, marital, and sexual dysfunction.⁷ In spite of strong evidence against such practices, mastectomies (with or without breast reconstruction) for less aggressive breast cancers continue to prevail for multiple reasons, especially in LMICs.^{4,8} Disparities in access to breast conservation surgeries or reconstruction following mastectomies highlight persistent social and health inequalities leading to late stage at detection and poor patient follow-up.

A vital but neglected part of QoL issues among women undergoing cancer care is psychosocial support for mental wellbeing. Psychosocial and emotional distress is a significant problem for more than a third of all cancer patients, and psychosocial interventions are helpful in alleviating distress levels in patients, and may even benefit medical outcomes. Cancer support groups, counselling, and peer support can be instrumental in helping women cope with the emotional and psychological aspects of breast cancer.⁹

An integrated approach to holistic care of a woman cancer survivor also requires exploring complementary and alternative medicines, such as acupuncture, herbal remedies, and various mind and body practices, which can provide relief from various consequences of cancer care, such as pain and menopausal symptoms and improve overall well-being. A recent guideline published by The Society for Integrative Oncology and ASCO outlines a set of recommendations on the use of complementary and alternative medicines to be used in conjunction with conventional care to improve the mental health of people with cancer, either during or after treatment.

Integration of women's cancers in service delivery

Impressive gains in cancer care have been made over the decades in high-income countries. However, these gains in overall care are in stark contrast to what exists in LMICs. At a system level, integrated care may be approached in a resource stratified, evidence-based manner. At an individual level, the decision-making process of cancer care should include a detailed discussion with the patient about the risks and benefits associated with the selected treatment to promote shared decision-making. Early detection of cancers is key to preservation of organs and reproductive functions, and to avoid negative consequences of more toxic aggressive therapies on physical and mental wellbeing and QoL. **By addressing these multifaceted aspects of women's health, healthcare providers can offer comprehensive support and improved outcomes for women facing a cancer diagnosis in different resource settings.** The path to recovery and survivorship is not just about defeating cancer; it's about preserving and enhancing women's overall well-being.

Where authors are identified as personnel of the International Agency for Research on Cancer/World Health Organization, the authors alone are responsible for the views expressed in this article and they do not necessarily represent the decisions, policy, or views of the International Agency for Research on Cancer/World Health Organization.





References

1. Melo AS, Paula CTV, Rufato MAF, et al. Fertility optimization in women with cancer: from preservation to contraception. *JBRA Assist Reprod.* 2019 Oct 14;23(4):418-429. doi: 10.5935/1518-0557.20190011.
2. Hosseini S, Ilkhani M, Rohani C, et al. Prevalence of sexual dysfunction in women with cancer: A systematic review and meta-analysis. *Int J Reprod BioMed (IJRM).* 2022;20(1):1-12. <https://doi.org/10.18502/ijrm.v20i1.10403>.
3. Barbera L, Zwaal C, Elterman D, et al. Interventions to Address Sexual Problems in People with Cancer. *Curr Oncol.* 2017;24:192-200. <https://doi.org/10.3747/co.24.3583>.
4. Fahlén M, et al. Hormone replacement therapy after breast cancer: 10 year follow up of the Stockholm randomised trial. *Eur J Cancer.* 2013 Jan;49(1):52-59.
5. Londero AP, Parisi N, Tassi A, Bertozzi S, Cagnacci A. Hormone Replacement Therapy in Endometrial Cancer Survivors: A Meta-Analysis. *J Clin Med.* 2021;10(14):3165. <https://doi.org/10.3390/jcm10143165>.
6. Ruddy KJ, Gelber SI, Tamimi RM, et al. Prospective study of fertility concerns and preservation strategies in young women with breast cancer. *J Clin Oncol.* 2014 Apr 10;32(11):1151-6. doi: 10.1200/JCO.2013.52.8877.
7. Wilkins EG, Cederna PS, Lowery JC, et al. Prospective analysis of psychosocial outcomes in breast reconstruction: one-year postoperative results from the Michigan Breast Reconstruction Outcome Study. *Plast Reconstr Surg.* 2000;106:1014-1025.
8. Al-Gaithy ZK, Yaghmoor BE, Koumu MI, et al. Trends of mastectomy and breast-conserving surgery and related factors in female breast cancer patients treated at King Abdulaziz University Hospital, Jeddah, Saudi Arabia, 2009-2017: A retrospective cohort study. *Ann Med Surg (Lond).* 2019 Apr 2;41:47-52. doi: 10.1016/j.amsu.2019.03.012.
9. Carlson LE, Bultz BD. Benefits of psychosocial oncology care: improved quality of life and medical cost offset. *Health Qual Life Outcomes.* 2003 Apr 17;1:8. doi: 10.1186/1477-7525-1-8.

What can we learn for women's cancers from integrated approaches to NCDs?



Emma Feeny, Global Director, Impact & Engagement, The George Institute for Global Health

Gill Schierhout, Senior Research Fellow, The George Institute for Global Health

One in three diseases among the poorest billion people in the world are NCDs. However, service provision for NCDs in most LMICs lags behind improvements made in communicable diseases and reproductive, maternal, and child health service provision.¹ The integration of services for NCDs with other health conditions has potential to improve the efficiency, effectiveness, and accessibility of healthcare delivery, yet how to integrate services in practice is not well understood.

What are the barriers?

The report 'Integrating noncommunicable disease prevention and care into global health initiatives and universal health coverage' identified several related issues impacting the success of integration efforts.² These primarily stem from the structures and ways of working that developed during the Millennium Development Goals era. For instance, **vertical, disease-specific programmes, delivery structures, siloed funding and staffing impede efforts to integrate services.** Further challenges are posed by governance issues including limited political will, ambivalence to change and health system inertia.

Inadequate support of frontline health workers was identified as another key barrier, exacerbated by staffing shortages, limited access to essential medicines and medical equipment, and a lack of overarching national guidance. Inequitable provision of services was also a key concern. Some integration initiatives are perceived to have been unsuccessful because they only served particular groups, or failed to reach the people most in need. **Lastly, the lack of scale and sustainability is also a challenge to integration,** with many pilot initiatives ending after initial research funding runs out.

What are the opportunities?

There are cost-effective NCD service provision models, with specific focus on the integration (or bundling) of one or more NCD interventions into existing 'vertical' programmes. For this to happen, strong in-country support to pursue greater integration of services is needed. Even incremental changes in service delivery models can have promising impacts on health outcomes, equity of access, and user satisfaction and trust in programmes, increasing retention in care. For example, studies have shown that when NCD services are integrated with HIV services at the point of access, it can increase retention in care and promote local system efficiencies, thereby enhancing overall outcomes and equity of both HIV and NCD care 'streams'. A key advantage for service users, particularly in areas with low access to services, is that they are not required to attend multiple appointments, avoiding travel expenses.³

The degree to which NCD service integration helps to further health equity goals in LMICs is largely dependent on the features of the system in which service integration is taking place, including the ability of that system to reach the underserved.⁴ Promisingly, integrated services have been found to increase user satisfaction with health services across diverse contexts.^{4,5,6}

Integrating services for NCDs – including women's cancers – into established, funded, disease-specific programmes as add-ons or 'service bundling' can provide essential priority health interventions to key groups and communities during the transition to UHC.

Such efforts can be a stepping stone, helping to build relationships and trust between people working in different disease areas, who need to collaborate if the journey to UHC is to progress. However, understanding the practicalities of how this can be better achieved is essential if resources are to be used effectively.

Recommendations from the report 'Integrating noncommunicable disease prevention and care into global health initiatives and universal health coverage'⁶

The voices of those most affected by multiple health conditions must be front and centre in all efforts to integrate NCD services through global health programmes, with services designed in consultation with the intended users. In addition, those seeking to advance integrated approaches to women's cancers should consider the following cross-cutting strategies:

1. **Strengthen relationships across health priorities and communities.**
 - a. Draw on evidence including the voices of people living with multiple chronic conditions to help frame discussions between different specialities and provide a basis for programme design decisions.
 - b. Support formal structures and co-ordinating mechanisms to bring disease specialities together.
 - c. Allow for adaptability and innovation.

2. **Identify how any particular integration effort can work with and strengthen local health systems, helping to overcome health system capacity constraints.**
 - a. Share and integrate health records, rather than setting up parallel systems.
 - b. Develop referral protocols between levels of care, paying attention to the full care cascade for NCDs.
 - c. Ensure that health workers are skilled and equipped with appropriate diagnostics, supplies and medications to provide whole-of-person care.
3. **Embed person-centred care in programme design at all levels.**
 - a. Adapt funding guidance and monitoring and evaluation requirements so that these 'walk the talk' of integrated, whole-of-person care, and extend beyond disease-specific indicators.
 - b. Develop an early, shared vision for whole-of-person care to support sustainability and country ownership.

References

1. Schierhout G, Palagyi A, Gadsen T, Dubois G, Renshaw N, Dodd R. Leveraging Global Health Wins for Sustainable, Person-Centered Healthcare Systems. NCD Alliance / The Helmsley Charitable Trust Policy Research Report; 2021.
2. NCD Alliance. Integrating noncommunicable disease prevention and care into global health initiatives and universal health coverage; 2021.
3. Duffy M, Ojikutu B, Andrian S, et al. Non-communicable diseases and HIV care and treatment: models of integrated service delivery. *Trop Med Int Health*. 2017;22(8):926-37. doi: 10.1111/tmi.12901.
4. Lê G, Morgan R, Bestall J, et al. Can service integration work for universal health coverage? Evidence from around the globe. *Health Policy*. 2016;120(4):406-19. doi: 10.1016/j.healthpol.2016.02.007.
5. Haldane V, Cervero-Liceras F, Chuah FL, et al. Integrating HIV and substance use services: a systematic review. *J Int AIDS Soc*. 2017;20(1):21585. doi: 10.7448/IAS.20.1.21585.
6. Haldane V, Legido-Quigley H, Chuah FLH, et al. Integrating cardiovascular diseases, hypertension, and diabetes with HIV services: a systematic review. *AIDS Care*. 2018;30(1):103-15. doi: 10.1080/09540121.2017.1344350.



Integration for women's cancers in health systems

Integration at the level of service delivery, and in client-facing interactions, must be supported by wider integration across all components of the health system, for example governance, healthcare workforce, and financing.

However, integrated approaches are rarely referenced within national cancer control plans (NCCPs), and there is limited, if any, guidance or recommendations for women's cancers with an integrated lens. Furthermore, a considered approach to integration can help to address the challenges in health workforce capacity, and support the achievement of women-centred cancer care and gender-responsive health systems.

Finally, in order to leverage the opportunity of integration, the financing of women's cancers requires a shift in perspective moving away from disease-specific vertical programmes towards funding models that enable or facilitate integration.

Integration of cervical cancer within the health system



Somesh Kumar, Senior Director, Technical Leadership and Innovation, and Country Director India, Jhpiego

Michelle Chevalier, US Department of State Bureau of Global Health Security & Diplomacy / PEPFAR

Smiljka de Lussigny, Programme Manager, Unitaid

Maura McCarthy, Women's Cancer Team Lead, Jhpiego

Tracey Schissler, Implementation Director, Jhpiego

Amon Marwiro, Country Director Botswana, Jhpiego

Maribel Almonte Pacheo, Implementation Scientist, Cervical Cancer Elimination Initiative, World Health Organization

Integration at the level of service delivery is seldom effective and sustainable, if not accompanied with convergence and integration within the other components of the health system:

- **Human Resources for Health (HRH):** For effective integration at the provider level, broader HRH practices need to be in place to ensure sustainability and scale of integration. For example identifying points of integration for secondary prevention of cervical cancer within pre-service curricula or in-service training of nurses, midwives and physicians in PF/RH and/or HIV practice. To ensure sustained quality of integrated services, strengthening supportive supervision visits and quality measures to ensure good implementation of provider and facility integration is critical.

As noted earlier, expectations and accountability are critical for the delivery of these services, these should be added in the job descriptions and performance management systems of these workers.^{1,2}

- **Leadership and Governance:** Global policy tenets that govern global health, such as the Astana declaration, the Global Action Plan for Healthy Lives and Well-being for All, point to the value of integrated health services.^{3,4} The Global strategy to accelerate the elimination of cervical cancer as a public health problem explicitly states, “such efforts should be mutually reinforcing and facilitate the integration of cervical cancer services with other specific programmes”. Translating these tenets “within the health sector, interventions should transcend common dividing lines – between immunisation programmes, adolescent health services, HIV and SRH services, communicable disease, and NCD programmes - including cancer prevention and control”. Subsequently, translating this global guidance to country programme implementation requires explicit actions around integration to be imbued in guideline and policy development. Cervical cancer screening guidance cannot just be siloed, but must be included in guidance and governance of other areas like HIV, SRH and primary care. This calls for strengthened partnerships within verticals of Ministries of Health to align on the modalities of integration and include these in the respective policy or guideline documents.⁵
- **Health Management Information Systems (HMIS):** Integration of cervical cancer services requires strengthened data collection and reporting tools. As new secondary prevention technologies/ methods are introduced, they need to be integrated into the HMIS, resulting in the addition and inclusion of increased cervical cancer indicators collected by facilities. A clear example of integration is the inclusion of cervical screening data to be included in HIV and FP/SRH visit registers. To report on the effectiveness of service integration, integration-specific indicators could be included in measurement and evaluation plans. For example, DHIS2 tracker, an open-source, web-based application that supports data collection, could include specific metrics around integration.^{5,6} Illustrative examples of these indicators include but are not limited to: proportion of WLHIV accessing (disaggregated by offered and accepted) cervical cancer screening; proportion of women with unknown HIV status who were offered co-testing with HIV and HPV test; proportion of HIV service delivery clinics (disaggregated by type of services) offering cervical cancer screening and ablative treatment services; proportion of women followed up with repeat cervical cancer screening over time. Contextualised versions of these indicators can be included in the HMIS of the different programmes, to generate data on the effectiveness of integration of services.



Spotlight

Leveraging health information systems to facilitate integration and support client navigation

As part of the SUCCESS (Scale Up Cervical Cancer Elimination with Secondary Prevention Strategy) project, funded by Unitaaid and implemented by Expertise France in partnership with Jhpiego and UICC, DHIS2 Tracker was adopted as the digital health platform to create a unified cervical cancer secondary prevention client navigation and client tracking application in Burkina Faso and Côte d'Ivoire, with HPV testing as the screening approach. Since its implementation, the tracker has helped women in their care-pathway and reduced loss to follow-up by providing custom and routine notifications to women in SMS formats with relevant information, including clinical and screening appointments as well as the availability of test results, and feeds existing DHIS2 systems already used as national Health Management Information Systems in both countries.

- **Financing:** Inclusion of financing for secondary prevention of cervical cancer in HIV, SRH and NCD programmes can give a big boost to cervical cancer prevention services, especially when governments have multiple priorities to address within finite resources. Such inclusion can be catalysed by integrating cervical cancer prevention services in global programmes, platforms and/or funds - this is already happening, but can be further intensified in PEPFAR/GO Further, Global Fund, Gavi and others. There are country examples of such inclusion as in Rwanda, where the initial investments for HPV vaccination came from the National Agency for the Control of AIDS. More of such forms of integrated financing at both global and country level is warranted.^{5,7} At the same time, integration creates cost savings and efficiencies, which contribute to building more sustainable programmes and increased access.

- **Forecasting procurement needs to ensure access:** Integrating procurement can facilitate access and availability of key commodities for achieving the cervical cancer elimination targets. The procurement of commodities alongside other disease programmes provides opportunities to leverage financing and supply chain processes, thus generating efficiencies. Considering purchases of HPV test kits alongside procurement for other disease programmes running molecular testing (e.g. HIV, COVID, TB) is one way to optimise costs and processes.^{8,9} Ensuring that accurate cervical cancer prevention forecasting is also included in forecasting exercises for other disease areas facilitates accurate availability of integrated testing services. Advocating for the inclusion of HPV testing in national Essential Diagnostics Lists (EDLs) is another way to help move toward ensuring sustainable access to these commodities for countries¹⁰, including through facilitating a tiered-based testing network that in itself improves more efficient procurement and resource allocation.
- **Integration of HPV testing in existing laboratory systems:** Integration of HPV testing onto multi-disease platforms is a critical step in increasing overall HPV testing capabilities and platform utilisation. Creating lab networks across disease areas presents an opportunity to increase access to screening and timely results to women, centred around their needs. For laboratory services to be truly integrated, it is necessary to work across Ministries of Health, their disease programmes and national laboratory directorates, including all the various teams which work with laboratories, and ensure alignment across vertical areas at a laboratory policy and governance - as well as at the laboratory and facility level. Finding synergy within sample transport and results management systems across national TB and HIV laboratory programmes can increase the feasibility of HPV testing introduction and scale.⁹

References

1. Huchko MJ, Bukusi EA, Cohen CR. Building capacity for cervical cancer screening in outpatient HIV clinics in the Nyanza province of western Kenya. *Int J Gynaecol Obstet.* 2011;114(2):106–10.
2. Odafe S, Torpey K, Khamofu H, Oladele E, Adedokun O, Chabikuli O, et al. Integrating cervical cancer screening with HIV care in a district hospital in Abuja, Nigeria. *Niger Med J.* 2013 May;54(3):176–84.
3. World Health Organization. Declaration of Astana. Global Conference on Primary Health Care. Available from: <https://iris.who.int/bitstream/handle/10665/328123/WHO-HIS-SDS-2018.61-eng.pdf?sequence=1>
4. World Health Organization. Global Action Plan for Healthy Lives and Well-being for All. Available from: <https://www.who.int/publications/i/item/9789241506236>
5. World Health Organization Regional Office for South-East Asia. Regional implementation framework for elimination of cervical cancer as a public health problem: 2021–2030. New Delhi: WHO Regional Office for South-East Asia; 2021.
6. DHIS2 Documentation. Integrating tracker and aggregate data. Available from: <https://docs.dhis2.org/en/implement/maintenance-and-use/tracker-and-aggregate-data-integration.html>
7. Binagwaho A, Wagner CM, Gatera M, Karema C, Nutt CT, Ngabo F. Achieving high coverage in Rwanda's national human papillomavirus vaccination programme. *Bull World Health Organ.* 2012 Aug 1;90(8):623–8.
8. Alemnji G, Moshia F, Maggiore P, Alexander H, Ndlovu N, Kebede Y, et al. Building integrated testing programs for infectious diseases. *J Infect Dis.* 2023 Nov 15;228(10):1314–7.
9. Mwenda V, Bor JP, Nyangasi M, Njeru J, Olwande S, Njiri P, et al. Integrating human papillomavirus testing as a point-of-care service using GeneXpert platforms: findings and lessons from a Kenyan pilot study (2019–2020). *PLoS One.* 2023 May;18(5).
10. Trapani D, Garcia PJ, Schroeder L, Abdul-Ghani R, Hansali A, Offutalu PN, et al. WHO model list of essential in vitro diagnostics: strengthening diagnostics capacity to transform health care for all. *Lancet Glob Health.* 2024 Mar;12(3). doi: 10.1016/S2214-109X(23)00568-5.



Women's cancers in national cancer control plans



Zuzanna Tittenbrun, Global Resources Manager, Union for International Cancer Control

The role of national cancer control plans

National cancer control plans (NCCPs) are the foundation of cancer control. These strategic public health documents serve as a roadmap for cancer prevention and control nationally and are designed according to a country's unique situation: its cancer burden, risk factor prevalence, available resources, cancer control and health system priorities, sociocultural environment and healthcare system.¹ NCCPs should form part of broader efforts to address NCDs and should be closely linked with other national health strategies.

In the past decade, there has been a growing emphasis on developing national cancer control plans² supported by the World Health Assembly Resolution 70.12 'Cancer prevention and control in the context of an integrated approach' adopted in Geneva in 2017.³ The resolution recommended that countries develop NCCPs and encouraged ministries of health to update existing or draft new cancer control plans.

Addressing women's cancers in NCCP

As breast and cervical cancers combined are the leading causes of death from cancer in women, with over 2.9 million new cases and over one million deaths globally in 2022⁴, it is imperative for national cancer control plans to address women's cancers. Although several countries have developed stand-alone plans for cervical cancer and /or breast cancer, most countries have a comprehensive national cancer control plan that addresses multiple cancer sites in one document.⁵ It is important to note as well that examples of integration strategies for women's cancers are also found outside of NCCPs, in other national health plans.

A global review of NCCPs and other cancer-related documents conducted in 2018 showed different aspects of service delivery and programming in NCCPs that are important to the prevention, early detection and management of breast and cervical cancer. For example, 67% of plans mentioned HPV vaccination, 85% made references to cervical cancer screening and early detection strategies while 79% of plans mentioned breast cancer screening programmes.⁶

In terms of integration across the health system, 73% of NCCPs acknowledged the role of PHC in cancer⁶ while 77% of NCCPs mentioned the existence of other national health strategies for example on RH, HIV or vaccination plans⁷ however detailed data on which strategies were referenced is not available. Some of the more recent NCCPs make direct references to the "integrated approach" advocated by the 2017 World Health Assembly Resolution 70.12 on cancer prevention and control in the context of an integrated approach.

For example, in the recently launched NCCP of Kenya 2023-2027 a specific activity linked to integration of screening services has been included: “Strengthen integration of cancer screening services into various service delivery points including RH, HIV, Outpatient Department, Maternal and Child Health, among others.”⁸ Malawi’s 2019-2029 NCCP includes a strategy to “Provide policy guidance on integration of priority cancer services with other services at health facilities e.g., RH, maternal and child health, HIV.”⁹

The Asia-Pacific Women’s Cancer Coalition’s report ‘Impact and Opportunity: the Case for Investing in Women’s Cancers in the Asia Pacific’ looked at NCCPs from six countries from the region and concluded that all countries performed well in terms of inclusion of goals, objectives and evidence-based interventions related to women’s cancers across the cancer continuum.¹⁰ However, the NCCPs lacked either specific targets linked to cervical cancer elimination or a time-bound implementation plans which are crucial for achieving goals and objectives. None of the plans included mechanisms to track outcomes and monitor the effectiveness and impact of cancer control interventions and activities for women’s cancers.

A recent analysis of selected 12 NCCPs across the WHO world regions included in the ‘Women, power, and cancer: A Lancet Commission’ concluded that although women’s cancers were addressed in the plans through breast and cervical cancer screening and HPV vaccination, none of the 12 plans acknowledged gender norms and roles in detail nor included measurable targets related to gender equity and that the majority of plans reviewed did not make specific references to priority populations.¹¹

Some positive examples of plans include Qatar’s NCCP 2023-2026 that incorporates women in the list of priority populations acknowledging that, “there are numerous barriers to increasing awareness and accessing screening for women, including limited time to focus on their health, negative perceptions related to cancer in their community, myths, stigma, cultural barriers to screening, and low health literacy, especially about cervical and breast screening, and HPV vaccination”¹² and New Zealand’s NCCP 2019-2029 which among its priorities included achieving equity for Indigenous populations,^{11,13} especially for Māori women who have worse cancer outcomes than non-Māori populations.

The way forward

The focus on women’s cancers has increased globally with recent WHO initiatives: WHO’s Global strategy to accelerate the elimination of cervical cancer as a public health problem and the WHO Global Breast Cancer Initiative launched in 2020 and 2021 respectively. As countries embark on a mission to develop and update their NCCPs, they should ensure coherence and alignment with these global strategies which include proven and cost-effective interventions. At the end of 2023, out of 22 national cancer plans released worldwide in 2021 or later, available on the International Cancer Control Partnership portal, 50% (11) acknowledge WHO’s Global strategy to accelerate the elimination of cervical cancer as a public health problem and its targets adopted in 2020. The WHO Global Breast Cancer Initiative which is a more recent initiative has been mentioned in 1 out of 13 NCCPs established in 2022 or later.⁷

Although breast and cervical cancers disproportionately affect women in LMICs, significant disparities in the accessibility of women's cancer services and treatments exist in high-resource settings including within the European Union. Europe's Beating Cancer Plan which sets out the EU's approach to cancer prevention, treatment and care, aims to address these inequalities and support EU Member States in meeting the cervical cancer elimination targets as well as targets set out by the WHO Global Breast Cancer Initiative.^{2,14} The inequalities in cancer prevention and healthcare access arising from factors such as gender, educational achievement, income status etc. are monitored through the European Cancer Inequalities Registry, a flagship initiative linked to the European cancer plan.¹⁵

As countries update and develop their NCCPs, it is important for policy makers to take into consideration women's unique social, cultural and economic circumstances and integrate gender and equity principles into national cancer strategies and policies as this can help further address cancer health disparities at both the global and national levels. 'Women, power, and cancer: A Lancet Commission' recommends two concrete actions and metrics:

1. "Design and implement gender and intersectional-transformative strategies to increase equitable access to early detection and diagnosis of cancer" with a corresponding metric of "all NCCPs published in 2025 and beyond include gender and intersectional transformative strategies in their early cancer diagnosis programmes";

2. Co-create accessible and responsive health systems that provide respectful, quality cancer care for women" with a corresponding metric of "all NCCPs published in 2025 and beyond include time-bound measurable indicators of gender and related dimensions of equity."¹¹

Taking these two recommendations on board in NCCPs would be a good starting point to help to reduce inequities and improve outcomes in women's cancers. More work is needed to develop specific recommendations on how to integrate women's cancers across all of the components of NCCPs and strengthen women's participation and representation in developing NCCPs and other health strategies that have a direct influence on women's health.



Spotlight

Spotlight: HIV and cervical cancer in African NCCPs

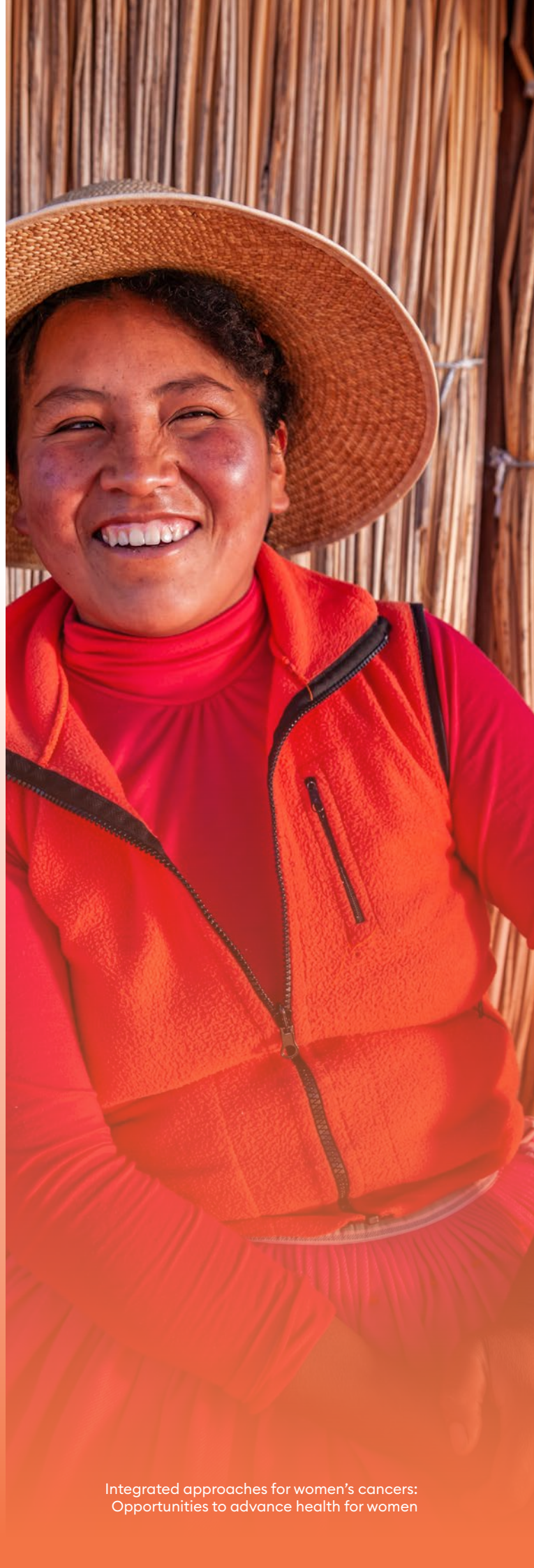
A closer look at the NCCPs in Africa shows that, although women living with HIV are at substantially higher risk of developing invasive cervical cancer¹, only 17 out of 27 plans available in 2023 on the portal of the International Cancer Control Partnership mentioned HIV as an associated risk factor for cancer.² However, when a plan acknowledges HIV as an associated risk factor for cervical cancer, integration strategies and linkages with HIV care tend to appear more frequently, for example: Zambia's NCCP refers to "Strengthening linkages between HIV care and treatment and cervical screening clinics in all the centres offering Voluntary Counselling and Testing services",³ Malawi's National Cervical Cancer Control Strategy 2016-2020 mentions "Leveraging resources for ART/HIV care for cervical cancer screening activities through integration of screening into ART/HIV care and including cervical cancer activities in HIV/AIDS programming"⁴, while Benin's Strategic Plan against cervical and breast cancers 2019-2023 includes a strategy to integrate screening for precancerous cervical lesions in the maternity care package at a national level.⁵

1. Stelzle D, Tanaka LF, Lee KK, Ibrahim Khalil A, Baussano I, Shah AS v, et al. Estimates of the global burden of cervical cancer associated with HIV. *The Lancet Global Health*. 2021 Feb;9(2).
2. International Cancer Control Partnership, unpublished data, 2023
3. Zambia Ministry of Health, National Cancer Control Strategic Plan 2016-2021 <https://www.iccp-portal.org/system/files/plans/NCCSP%20Final%20Version%20Zambia.pdf> (accessed October 2, 2023)
4. Malawi Ministry of Health. National Cervical Cancer Control Strategy 2016-2020 https://www.iccp-portal.org/system/files/plans/National_Cervical_Cancer_Strategy_A5_30Oct17_WEB.pdf (accessed October 2, 2023)
5. Benin Ministry of Health. Plan stratégique de lutte contre le cancer du col de l'utérus et les autres cancers gynécologiques et mammaires au Bénin, 2019-2023. https://www.iccp-portal.org/system/files/plans/B%C3%A9nin_Plan_Cancer_Col_Sein_2019_2023.pdf (accessed October 2, 2023)



References

1. Union for International Cancer Control. National cancer control planning resources for non-governmental organizations. 2006. <https://www.uicc.org/sites/main/files/private/nccp.pdf> (accessed October 3, 2023).
2. Torode JS, Tittenbrun Z, Romero Y, et al. Ten Years of the International Cancer Control Partnership: Promoting National Cancer Control Plans to Shape the Health System Response for Cancer Control. *JCO Glob Oncol*. 2023;9:e2200232. doi:10.1200/GO.22.00232
3. World Health Organization (WHO), Cancer prevention and control in the context of an integrated approach. Seventieth World Health Assembly; 2017; Geneva: World Health Organization (WHO). https://apps.who.int/gb/ebwha/pdf_files/WHA70/A70_R12-en.pdf
4. Ferlay J, Ervik M, Lam F, Laversanne M, Colombet M, Mery L, Piñeros M, Znaor A, Soerjomataram I, Bray F (2024). *Global Cancer Observatory: Cancer Today*. Lyon, France: International Agency for Research on Cancer. Available from: <https://gco.iarc.who.int/today>, F (accessed 26 April, 2024).
5. International Cancer Control Partnership portal www.iccp-portal.org (accessed October 3, 2023)
6. Romero Y, Trapani D, Johnson S, et al. National cancer control plans: a global analysis. *Lancet Oncol* 2018; 19: e546–55.
7. International Cancer Control Partnership, unpublished data
8. Kenya ministry of Health. The National Cancer Control Strategy (2023–2027). https://www.iccp-portal.org/system/files/plans/NATIONAL%20CANCER%20CONTROL%20STRATEGY%202023-2027_compressed.pdf (accessed October 3, 2023)
9. Malawi Ministry of Health and Population. National Cancer Control Strategic Plan 2019–2029 <https://www.iccp-portal.org/system/files/plans/MALAWI%20NATIONAL%20CANCER%20CONTROL%20STRATEGIC%20PLAN-%202019-2029.pdf> (accessed October 2, 2023)
10. Economist Impact. Impact and opportunity: the case for investing in women's cancers in Asia Pacific. 2023. https://impact.economist.com/perspectives/sites/default/files/ei249_-_womens_cancer_in_apac_v10.pdf (accessed 11 October 2023).
11. Ginsburg O, Vanderpuye V, Beddoe AM, et al. Women, power, and cancer: a Lancet Commission. *Lancet*. 2023;S0140-6736(23)01701-4. doi:10.1016/S0140-6736(23)01701-4
12. Qatar Ministry of Public Health. Qatar Cancer Plan 2023 – 2026 Excellence for All <https://www.iccp-portal.org/system/files/plans/QATAR-CANCER-PLAN-2023-2026-EN-compressed.pdf> (accessed October 4, 2023)
13. New Zealand Ministry of Health. New Zealand Cancer Action Plan 2019–2029. Te Mahere mō te Mate Pukupuku o Aotearoa 2019–2029. <https://www.iccp-portal.org/system/files/plans/new-zealand-cancer-action-plan-revised-january-2020.pdf> (accessed October 4, 2023)
14. European Commission. Europe's beating cancer plan. Brussels 2021 https://health.ec.europa.eu/system/files/2022-02/eu_cancer-plan_en_0.pdf (accessed October 3, 2023)
15. European Cancer Inequalities Registry <https://cancer-inequalities.jrc.ec.europa.eu/> (accessed October 2, 2023)



Optimising the cancer workforce to achieve women-centred care



Miriam Mutebi, Consultant Breast Surgical Oncologist and UICC Board Member

Nazik Hammad, Professor, Division of Hematology - Oncology St. Michael's Hospital, University of Toronto

Deborah Mukherji, Consultant Medical Oncologist, Clemenceau Medical Centre Hospital

Integrated approaches to women-centred care require all different cadres of the workforce to work collaboratively to ensure a holistic experience for women engaging with health systems. Women form a significant proportion of the workforce and in LMICs are critical to connections to the society, such as community health workers who are able to incorporate links to ensure early detection and screening, diagnosis and treatment through to survivorship.

Women constitute more than 90% of providers tasked with messaging/counselling and delivering cervical cancer screening services. Women providers often work in conditions of occupational segregation and experience gender-based discrimination, bullying, harassment, and unequal pay. There is a growing consensus that all the cancer workforce including CHWs should be paid. More than 80% of CHWs currently in the WHO Africa region are largely unpaid. Recent studies have documented exploitative labour conditions with paid CHW receiving payment of less than minimum wage paired with excessive work hours or high task complexity.¹

Along the continuum of cervical and breast cancer care, there are workforce shortages in all required cadres particularly in LMICs. These health professions include surgery, medical oncology, anaesthesiology, pathology, pain medicine, radiation oncology, radiology, nursing and palliative care among others.

Upscaling the cancer workforce, requires developing enough cadres through training and education, in addition to retention of existing teams through providing favourable terms of employment and conducive working conditions. Upscaling must be coupled with policies to improve the diversity of the cancer workforce and improve cancer care for minoritised communities. Achieving workforce parity requires gender-responsive admission criteria in training programmes. In addition, gender-responsive policies must be embedded in the workplace, and in academia to empower women in these professions. For example, the percentage of women surgeons globally remains low and they continue to face significant harassment and gender-based discrimination. At the same time, there is compelling evidence that women surgeons and women physicians in general provide better care especially for women. Provider-patient gender concordance also improves provision of guideline-concordant care ultimately improving outcomes in cancers in women.²



The challenges of achieving a sufficiently diverse and relevant cancer workforce is particularly urgent in LMICs and in countries that are fractured along racial or ethnic lines. Sub-Saharan Africa (SSA) has a significant burden of cervical and breast cancer, and women in the workforce are uniquely placed to overcome some of the barriers to accessing cancer care for women. These may include health system but also other social cultural barriers including stigma, collectivism and embarrassment over revealing reproductive system symptoms to the opposite gender for example. However, the numbers of women lag behind in the key specialities needed to treat women's cancers. For instance, only 9% of surgeons in Africa are women, thus representing a major barrier to access to care in certain settings.³ Female oncologists in SSA experience many of the challenges that have been previously identified by similar studies in other regions, with different degrees of perceived importance. Some challenges such as enhanced social responsibilities not just to the nuclear family but to the broader community, and a lack of mentorship and societal support, have a different lived experience for female oncologists in SSA.⁴

In the United States, Black women have 4% lower breast cancer incidence than White women but 40% higher breast cancer mortality - a disparity that has remained stagnant for the past 10 years.⁵ Data shows that gender or racial concordance improves participation in health decision making for patients. Despite this glaring disparity, only 3% of oncologists in the US are Black or African American and the percentage of female oncologists is even lower.⁶ Similarly, the percentage of Black women who graduated from general surgery residency programmes in the USA stayed the same during a 13-year period, while the percentage of Black male graduates declined.⁷

Workforce competencies

Women are often blamed for late presentation or receive disrespectful or low quality care, discordant with guidelines. While there are wider health system reasons for low quality care, the workforce can contribute to low quality by the lack of knowledge or familiarity with practice guidelines (know-gap) or through omitting evidence-based care (know-do gap) because of poor communications, heavy workload, poor working conditions and/or lack of regulations and adequate performance management systems.

Upscaling the cancer workforce in terms of quantity and gender parity is not sufficient, cancer healthcare professionals, whether women or men, must be trained to attain competencies required for provision of women-centred high quality care. The 2023 'Women, power, and cancer: A Lancet Commission' proposed a set of gender competencies for the cancer workforce. If these are implemented this would help to advance the provision of high quality, respectful care for all people with cancer. The proposed set of gender competencies for the cancer workforce cut across four overlapping domains which include: provision of care; workplace and cancer professional team; health disparities; and policy, quality, and health system issues.⁸ These competencies should be tailored and incorporated into the curriculum of cancer health professional education globally. The Lancet Breast Cancer Commission underscores the need for effective communication from the workforce and empowerment of patients and provides a framework for developing these key skills.⁹ Integrating these skills in core basic health worker training will ensure a workforce that is able to rapidly identify patient barriers and address their concerns more broadly.

Adoption of gender competencies can be enabled by innovations in pedagogy, sound assessment strategies, faculty development, and creation of communities of practice. Additionally, they should be integrated into professional development and life-long learning strategies for the cancer workforce at all levels from CHW to highly specialised cadre. Integrating these competencies will help the workforce to develop models that are culturally appropriate and that embed patient centred approaches to care, which view women in a holistic manner including not only their physical, but psychosocial, spiritual and cultural context of the interpretation of their illness and its experience.

References

- Ballard M, Olaniran A, Iberico MM, Rogers A, Thapa A, Cook J, Aranda Z, French M, Olsen HE, Haughton J, Lassala D, Carpenter Westgate C, Malitoni B, Juma M, Perry HB. Labour conditions in dual-cadre community health worker programmes: a systematic review. *Lancet Glob Health*. 2023 Oct;11(10):e1598-e1608. doi: 10.1016/S2214-109X(23)00357-1.
- Hammad N, Ginsburg O. Investing in gender equality and equitable access improves outcomes. *Lancet Oncol*. 2023 Dec;24(12):1302-1304. doi: 10.1016/S1470-2045(23)00521-1. Epub 2023 Nov 2.
- Odera A, Tierney S, Mangaoang D, Mugwe R, Sanfey H. Women in Surgery Africa and research. *Lancet*. 2019 May 25;393(10186):2120. doi: 10.1016/S0140-6736(19)31106-7.
- Challenges faced by female oncologists in sub-Saharan Africa. *J Clin Oncol*. 2022;40(16_suppl):11001. Available from: https://ascopubs.org/doi/abs/10.1200/JCO.2022.40.16_suppl.11001. Accessed February 15, 2024.
- Siegel RL, Miller KD, Wagle NS, Jemal A. Cancer statistics, 2023. *CA Cancer J Clin*. 2023;73(1):17-48. doi:10.3322/caac.21763.
- Winkfield KM, Levit LA, Tibbits M, et al. Addressing equity, diversity, and inclusion of Black physicians in the oncology workforce. *JCO Oncol Pract*. 2021;17(5):224-226. doi:10.1200/OP.21.00079.
- Keshinro A, Butler P, Fayanju O, Khabele D, Newman E, Greene W, et al. Examination of intersectionality and the pipeline for Black academic surgeons. *JAMA Surg*. 2022 Apr 1;157(4):327-334. doi:10.1001/jamasurg.2021.7430.
- Ginsburg O, Vanderpuye V, Beddoe AM, et al. Women, power, and cancer: a Lancet Commission. *Lancet*. 2023;S0140-6736(23)01701-4. doi:10.1016/S0140-6736(23)01701-4
- Coles C, Earl H, Anderson B, Barrios C, Bienz M, Bliss J, et al. The Lancet Breast Cancer Commission. *The Lancet*. 2024;403(10439):1-5.

Integrated approaches to cervical and breast cancer: Addressing the workforce capacity challenges



Kathleen Schmeler, Professor of Gynecologic Oncology and Associate Vice President of Global Oncology, MD Anderson Cancer Center

The WHO has established two global strategies to reduce the burden of both cervical and breast cancer.^{1,2} This includes the Cervical Cancer Elimination Initiative to increase HPV vaccination, cervical cancer screening and treatment of women diagnosed with precancerous lesions and invasive cancer¹ and the Global Breast Cancer Initiative (GBCI) with the goal of a steady reduction in breast cancer deaths with the aim of saving 2.5 million lives over 20 years.² These two initiatives will significantly increase cervical and breast cancer screening and diagnosis respectively, resulting in a need for many more healthcare providers to perform the diagnostic and treatment procedures for patients with positive screening test results. To meet the goals of these initiatives and reduce deaths from breast and cervical cancer, significant investment in workforce development will be required to increase capacity for primary prevention (e.g. HPV vaccination), screening, early diagnosis of symptomatic disease, diagnostic testing, and treatment. **In settings with highly constrained healthcare resources and a scarcity of HCWs, careful consideration of integrated training and care delivery strategies can increase efficiency and effectiveness.**

Task-shifting to clinicians practising in community-based settings can increase access to these services, but must be accompanied by ongoing supervision and monitoring to assure quality.

Cervical cancer screening and treatment of preinvasive disease

Cervical cancer is the first or second leading cause of cancer and related deaths among women in LMICs, where 90% of cases and related deaths occur.³ The current guidelines from the WHO⁴ include screening with HPV testing (self- or provider-collected). Women who screen positive undergo visual assessment for treatment (VAT) using visual inspection with acetic acid (VIA) and if eligible should be treated immediately with ablation using cryotherapy or thermoablation. Screening and VAT/ablation can be performed by a nurse. However, if the precancerous cervical lesions do not meet the criteria for ablation, the patient must be referred to an advanced practice provider or doctor for a loop electrosurgical excision procedure (LEEP) or a cervical biopsy if there is suspicion of malignancy. Although these algorithms for the identification and treatment of precancerous lesions are very effective in preventing cervical cancer, they require trained medical providers (nurses and doctors) with the knowledge to adhere to evidence-based guidelines, as well as the technical skills to perform the above screening, diagnostic and treatment procedures.

Breast cancer screening and early detection

Similar to cervical cancer, the majority of deaths from breast cancer (nearly 80%) occur in LMICs.³ In resource-constrained settings, breast cancer screening and early diagnosis of symptomatic disease typically rely on CBE, with breast imaging (for example with breast ultrasound) for abnormal clinical findings, and biopsy when indicated.

Integrated approaches

There is interest in integrating breast cancer screening into existing cervical cancer screening programmes given the overlap in target populations.^{5,6,7} This integrated approach would allow women to receive both services at the same visit and by the same provider. However, evidence is lacking to guide implementation. Diala and colleagues⁵ surveyed 69 providers regarding the barriers and facilitators of integrating breast cancer screening into existing cervical cancer screening programmes in Kenya. Although the providers were enthusiastic about the integrated approach, they noted staffing shortages and inadequate training related to breast cancer screening as one of the main barriers. Other studies have evaluated the integration of cervical and/or breast cancer screening with other services such as FP and HIV with some success.^{8,9,10} Evidence about optimal workforce considerations is limited.

Opportunities for combined training include the following:

- Training in raising awareness of both cancers, for CHW or other lay personnel who conduct health education activities. Combining messages about the two cancers may have benefit for populations and may be an efficient use of health workers and educational materials and platforms.
- Training clinicians in primary care facilities in both cervical cancer screening and CBE. CBE training can be incorporated into cervical cancer screening, though as described, decisions about which patients should receive CBE should be based on health system capacity for screening. This can enhance clinics' ability to have dedicated staff for women's cancers. However, care must be taken to make sure that women who are not eligible for cervical cancer screening receive breast health care - example, women with breast symptoms, and older women.
- Combined clinics could also provide efficient settings for combined supervision and mentorship, which is essential to sustain high-quality care.
- Integration of training in more advanced services such as breast ultrasound, ultrasound-guided core needle biopsy of the breast, colposcopy, and LEEP may be highly dependent on the structure of a given setting's workforce and referral pathways.

Workforce capacity

It is well established that there is a shortage of medical providers in LMICs.^{11,12,13} High-income countries have 6.5 times more HCWs per population than low-income countries. Africa has a 4% share of the global workforce despite shouldering a quarter of the global disease burden. There are significant gaps in access to oncology services, particularly related to surgery. Current trends show that the current cancer surgical workforce will not meet the projected needs in 2040, with a 383% gap in LMICs.¹² As breast and cervical cancer screening is scaled up through the WHO initiatives, a trained workforce will be critical to address the women diagnosed with precancerous lesions and invasive cancer. There are several ongoing programmes to build provider capacity for both cervical and breast cancer screening, diagnosis and treatment. However, these initiatives are often disease-site specific with limited integration of cervical and breast cancer.

Workforce training for integrated approaches

Integrating breast cancer screening into cervical cancer prevention programmes will be helpful to both patients and providers. However, training and education will be needed for existing providers with scale-up required. Existing programmes for cervical screening, ablation and LEEP can be expanded to include CBE, ultrasound and biopsy. Similarly, gynaecologic oncology training programmes such as the International Gynaecologic Oncology Society (IGCS) fellowship^{14,15} can be expanded or replicated for breast surgery. An ongoing pilot study in Mozambique is including simulation models to teach CBE, breast ultrasound and biopsy as part of the cervical cancer prevention training. In addition, there are several Project ECHO programmes to support providers performing breast screening and treatment. Additional efforts will be needed to further study the integration of breast and cervical cancer services, particularly around workforce training, including quality control measures and plans for sustainability.



Training for secondary prevention of cervical cancer in Mozambique with faculty from US and Brazil.



Surgical training through the IGCS gynaecologic oncology fellowship programme in Mozambique.



Spotlight

Integrating breast and cervical cancer: the Rwanda Women's Cancer Early Detection Programme

Rwanda created the Women's Cancer Early Detection Programme (WCEDP) in 2018 with the goal of enhancing the reach and feasibility of early detection of breast cancer and cervical cancer screening at PHC centres. Due to high start-up costs and inefficiencies of standalone breast clinics, leadership at Rwanda Biomedical Centre (RBC), Rwanda's chief health implementation agency, sought to create an integrated WCEDP that could be effectively scaled, following a pilot intervention. The integrated programme was proposed because it addresses the two most common cancers among Rwandan women and may use staff time, clinic space, and community outreach efforts more efficiently.

An initial pilot tested the integration of breast cancer screening using CBE with cervical cancer screening. The results from this study highlighted that all of the breast cancers found were symptomatic. Therefore, in the current WCEDP, integration of breast cancer screening with CBE into cervical cancer screening, focuses only on providing breast cancer screening when there are signs or symptoms that could be suggestive of breast cancer.¹

The WCEDP combines community-level awareness-raising activities and early detection through cervical cancer screening and CBE provided by nurses at the primary level. Staff receive joint training on both cancers, and CHW, local leaders, and nurses invite women to attend the clinic for cervical cancer screening and/or evaluation of breast symptoms.

RBC, in collaboration with non-governmental partners and academic institutions, has now implemented the WCEDP in health centres and district hospitals in 20 districts, with further scale-up planned in 2024. Challenges have included optimisation of the combined breast and cervical electronic medical record to facilitate linkage to care and competing priorities at the PHC facilities. Key areas of focus for the future include optimising community outreach to ensure that women know signs and symptoms of breast cancer and present early at health facilities and ensuring access to cancer diagnosis and treatment services.

1. Pace LE, Hagenimana M, Dusengimana JV, Balinda JP, Benewe O, Rugema V, et al. Implementation research: including breast examinations in a cervical cancer screening programme, Rwanda. *Bull World Health Organ.* 2023;101:478-486. doi: 10.2471/BLT.22.289599.



References

1. World Health Organization. Global strategy to accelerate the elimination of cervical cancer as a public health problem [Internet]. Geneva: World Health Organization; 2020. Available from: <https://iris.who.int/handle/10665/336583>. License: CC BY-NC-SA 3.0 IGO
2. Anderson BO, Ilbawi AM, Fidarova E, Weiderpass E, Stevens L, Abdel-Wahab M, et al. The Global Breast Cancer Initiative: a strategic collaboration to strengthen health care for non-communicable diseases. *Lancet Oncol*. 2021;22(5):578-81.
3. Arbyn M, Weiderpass E, Bruni L, de Sanjosé S, Saraiya M, Ferlay J, et al. Estimates of incidence and mortality of cervical cancer in 2018: a worldwide analysis. *Lancet Glob Health*. 2020;8(2):e191-e203.
4. WHO guideline for screening and treatment of cervical pre-cancer lesions for cervical cancer prevention, second edition, 2021, ISBN 978-92-4-003082-4 (electronic version).
5. Diala PC, Randa M, Odhiambo J, Ganda G, Cohen CR, Mungo C. Barriers and Facilitators to Integrating Clinical Breast Examinations With Cervical Cancer Screening Programs in Outpatient Clinics in Western Kenya. *JCO Glob Oncol*. 2021;7:1722-9.
6. Pace LE, Hagenimana M, Dusengimana JV, Balinda JP, Benewe O, Rugema V, et al. Implementation research: including breast examinations in a cervical cancer screening programme, Rwanda. *Bull World Health Organ*. 2023;101(7):478-86.
7. Pinder LF, Henry-Tillman R, Linyama D, Kusweje V, Nzayisenga JB, Shibemba A, et al. Leverage of an Existing Cervical Cancer Prevention Service Platform to Initiate Breast Cancer Control Services in Zambia: Experiences and Early Outcomes. *J Glob Oncol*. 2018;4:1-8.
8. Tang JH, Lee F, Chagomerana MB, Ghambi K, Mhango P, Msowoya L, et al. Results from Two HPV-Based Cervical Cancer Screening-Family Planning Integration Models in Malawi: A Cluster Randomized Trial. *Cancers (Basel)*. 2023;15(10).
9. Salcedo MP, Lathrop E, Osman N, Neves A, Rangeiro R, Mariano AAN, et al. The Mulher Study: cervical cancer screening with primary HPV testing in Mozambique. *Int J Gynecol Cancer*. 2023.
10. Ninsiima M, Nyabigambo A, Kagaayi J. Acceptability of integration of cervical cancer screening into routine HIV care, associated factors and perceptions among HIV-infected women: a mixed methods study at Mbarara Regional Referral Hospital, Uganda. *BMC Health Serv Res*. 2023;23(1):333.
11. Agyeman-Manu K, Ghebreyesus TA, Maait M, Rafila A, Tom L, Lima NT, et al. Prioritising the health and care workforce shortage: protect, invest, together. *Lancet Glob Health*. 2023;11(8):e1162-e4.
12. Perera SK, Jacob S, Wilson BE, Ferlay J, Bray F, Sullivan R, et al. Global demand for cancer surgery and an estimate of the optimal surgical and anaesthesia workforce between 2018 and 2040: a population-based modelling study. *Lancet Oncol*. 2021;22(2):182-9.
13. Are C, Murthy SS, Sullivan R, Schissel M, Chowdhury S, Alatishe O, et al. Global Cancer Surgery: pragmatic solutions to improve cancer surgery outcomes worldwide. *Lancet Oncol*. 2023;24(12):e472-e518.
14. Randall TC, Somashekhar SP, Chuang L, Ng JS, Schmeler KM, Quinn M. Reaching the women with the greatest needs: Two models for initiation and scale-up of gynecologic oncology fellowship trainings in low-resource settings. *Int J Gynaecol Obstet*. 2021;155 Suppl 1:115-2
15. Randall T, Chuang L, Ng SYJ, Schmeler KM, Quinn MA. The IGCS global curriculum mentorship and training program: building human capacity for gynecologic cancer treatment and research where the need is greatest. *Int J Gynecol Cancer*. 2021;31(10):1380-1.

The case for investing in women's cancer interventions: The Eastern Mediterranean region



Giuseppe Troisi, Technical Officer, World Health Organization Eastern Mediterranean Regional Office

Jihan Azar, Technical Officer, World Health Organization Eastern Mediterranean Regional Office

Khalifa Elmusharaf, Director of Public Health Programme, University of Birmingham Dubai

Matilda Byström, Technical Officer, World Health Organization Eastern Mediterranean Regional Office

Sebastien Poix, PhD Researcher, University of Limerick

Mohamed Afifi, Regional Advisor for Women's Health, World Health Organization Eastern Mediterranean Regional Office

Lamia Mahmoud, Regional Advisor for Noncommunicable Disease Prevention, World Health Organization Eastern Mediterranean Regional Office

Cancer is not just a health issue but a significant challenge for sustainable development. In addition to causing mortality, cancer has a significant economic cost to the health system, as well as to the wider economy through reduced productivity in the labour market, namely through absenteeism or reduced capacity. The WHO has developed an investment case on women's cancers – particularly, breast and cervical cancer – in the Eastern Mediterranean Region (EMR).

This investment case assesses the social and economic cost of women's cancers, its distribution and projections over time, thereby identifying priority areas for action informed by the costs and returns from recommended preventive interventions and clinical measures. In short, investment cases enable policy makers in the health and finance sectors to understand the burden of cancer in economic terms and to consider relevant interventions as investments to uphold nations' economies.

Women's cancers in the EMR pose a concerning challenge that needs to be addressed urgently. Investment case data suggest an incidence of around 90,000 cases per year and 60,000 deaths, for both cancers. However, if decisive action is not taken now, by 2040 the cumulative deaths are projected to exceed two million, and the accumulated cases will surpass three million. These numbers represent not just a human tragedy but also a colossal economic setback. The WHO investment case demonstrates that the economic impact of women's cancers is staggering. While the current economic burden in the region amounts to only \$15 billion USD, the real concern lies in the projection: without significant action, the cumulative economic burden is estimated to skyrocket exceeding \$379 billion USD by 2040.

The investment case also revealed that the economic burden of women's cancers has an 'iceberg' phenomenon, with the tip reflecting the direct healthcare costs (i.e. what government spends and can see), while the unseen portion represents the lost productivity due to premature deaths, accounting for 96% of the total economic burden. This finding hints a profound consideration, around the significant societal impact of women's cancers, particularly in the Eastern Mediterranean Region where women's roles, often outside the formal labour market, are crucial in maintaining the social and familial fabric.

The investment case not only enlightens governments on the cost of inaction, but more importantly it offers compelling insights for spending more on prevention, screening, and treatment. For instance, investing in HPV vaccination yields a remarkable return on investment of \$2 to \$6 USD for every dollar spent. Similarly, the return for cervical cancer treatment ranges from \$2 to \$12 USD per dollar invested, and for breast cancer treatment, it is \$6 to \$8 USD. These figures clearly demonstrate that cancer prevention and control is not a cost, but an investment in the health and economic prosperity of our nations.

Moreover, beyond the economic dimensions, addressing women's cancers is fundamentally aligned with the right to health, ensuring that women's health needs are met not just as a matter of economic policy but as a core element of human rights and dignity.



Spotlight

The Presidential Initiative on Women's Health in Egypt

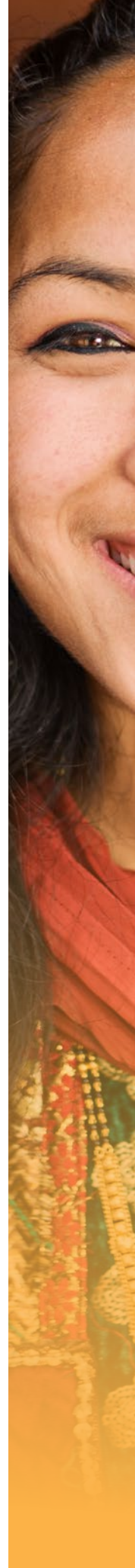
The Presidential Initiative on Women's Health in Egypt is a nationwide programme established by the Egyptian Ministry of Health and Population to upgrade the early detection and management of women's cancers. The Initiative also fosters international collaboration and aims to gather world-renowned scientists and policymakers, by providing a platform for experience sharing and for advancing cancer control strategies worldwide. The Ministry estimates that between 2019 and 2023, the initiative enabled 46 million clinical visits for breast cancer, resulting in a 31% return on investment for the costs related to the early detection programme, leading to a saving of over USD 66.3 million and 39k life years saved.

A high level Leadership Roundtable Event on Women's Health was organised as part of the Presidential Initiative in collaboration with WHO EMRO, on 18 January 2024. The event spotlighted:

1. Improvement and positioning of success models, by highlighting the Egyptian experience and other regional success stories in breast cancer prevention and treatment.
2. Socioeconomic considerations around women's cancers, focusing on how breast and cervical cancer initiatives synergise with overall socio-economic development in Egypt and the wider region, thus offering insights into the broader implications of health interventions.
3. Integration of international and regional efforts, including fostering and strengthening collaboration between various international and regional organisations in cancer control, sharing experiences and strategies for effective integration.

The WHO investment case not only explores the economic dimensions of women's cancers, but also offers insight around national governance structures and mechanisms, prevention and management programmes, and views and perceptions on women's cancers. This situation analysis enabled WHO to explore multiple dimensions of the fight against women's cancers and to develop evidence-based and context-specific recommendations. For instance, by highlighting that several countries have well-established maternal and child health policies, the investment case advocates for expanding these to include the prevention and control of women's cancers, as it would provide a legal basis for women's right to cancer prevention and care and could be leveraged for advocacy and mobilisation of funding from governments and donors. **The investment case also suggests that breast and cervical cancers cannot, and should not, be addressed as vertical programmes, but need to be part of comprehensive health strategies. First, because both breast and cervical cancer share risk factors with other NCDs and sexual and reproductive diseases, including obesity, physical inactivity, unhealthy diets, tobacco use, and sexually transmitted infections. Second, for early detection to be effective it must be integrated into PHC, with efficient and coordinated referral systems.**

Shifting our mindset from merely financing to actively investing in health is a transformative concept that aims to reshape our approach to well-being on both individual and societal levels. Allocating funds to cancer prevention and control not only saves lives, but also ensures a healthier and more productive workforce, ultimately contributing to a more robust and resilient economy. Furthermore, this approach honours the intrinsic value of every woman's life, irrespective of her role in the formal economy, recognising that safeguarding women's health is indispensable for the social well-being of our communities.





Spotlight

Integrating breast and cervical cancer in India across the health system

The integration of breast and cervical cancers into the Government of India's National NCDs Control Programme signifies a targeted initiative toward the prevention and management of cancers among women. Recognising the shared awareness challenges, resource constraints, and obstacles to separate screenings for breast and cervical cancers, there is a compelling need to invest in the development of integrated approaches that emphasise efficiency and patient-centred workflows.

Thus, in collaboration with the Governments of Uttar Pradesh and Odisha, Jhpiego implemented an integrated approach to provision of early detection of women's cancer services. The intervention incorporated five key strategies: 1) developing integrated learning resource packages for training of frontline workers on counselling and screening for women's cancers; 2) implementing integrated competency and capacity building initiatives for frontline workers; 3) defining context-specific workflows for screening and diagnosis of both cancers;

4) establishing collaborations with institutions for comprehensive management of screen-positive women; and 5) ensuring the use of integrated recording and reporting systems.

Conducted by competent service providers, the programme focused on an integrated visit for screening of breast and cervical cancer, ensuring service efficiency. The integrated approach has been followed in 37 health and wellness centres in Odisha and Uttar Pradesh. Within three years of implementation of this integrated approach, 63% of eligible women utilised it for screening. **Diagnostic decentralisation at district hospitals accelerated case confirmation for both cancers, addressing gaps in accessibility by bringing services closer to communities.** Additionally, leveraging the presence of care navigators in the field proved instrumental in mobilising women and maintaining follow-up records efficiently. This integration is facilitated by funding of the integrated screening programme for these cancers under the National NCD Control Programme by the Government of India.



Key takeaways on integration for women's cancers



The key learning points and reflections from the articles in this publication are summarised in this section, and acknowledge both the contextual adaptation required for successful implementation of integrated approaches, and the importance for further research on integrated approaches to build a stronger evidence base.

These concluding points should also be considered in the wider context of recommendations around integration principles for health, NCDs¹, and understood within the context of inequities that women face, described by the recent Lancet Commission report on Women, Power and Cancer.²

What are integrated approaches?

- Integrated approaches are interventions that combine disease-specific initiatives aiming to join up multiple public health programmes, using existing opportunities to reach girls and women throughout their life course and strengthen health systems to provide holistic, comprehensive, quality services that addresses women's health needs.

Why are integrated approaches important?

- Integration can help increase access to services for women, with higher chances to detect cancer at an early stage, less out of pocket expenditure, less back and forth between multiple appointments, and support an improved understanding of their diagnosis, treatment and care.
- Integrated approaches can support women-centred care, improved patient outcomes, increased adherence to treatment and better quality of life.
- Importantly, integrated services have been found to increase patient satisfaction with health services across diverse contexts.

Integration of women's cancers in service delivery

- Integration of preventive services, for example, for cervical cancer with other service delivery platforms such as FP, RH and HIV, or for breast and cervical cancer, represents a feasible and effective strategy to increase equitable access to services.
- As such, greater integration is particularly relevant at the primary care and community levels, for instance in raising awareness and providing preventive services, including cervical cancer screening and breast cancer early detection. However, this must be complemented by strong information systems and referral pathways to secondary level care.

Challenges and opportunities for integration in health systems

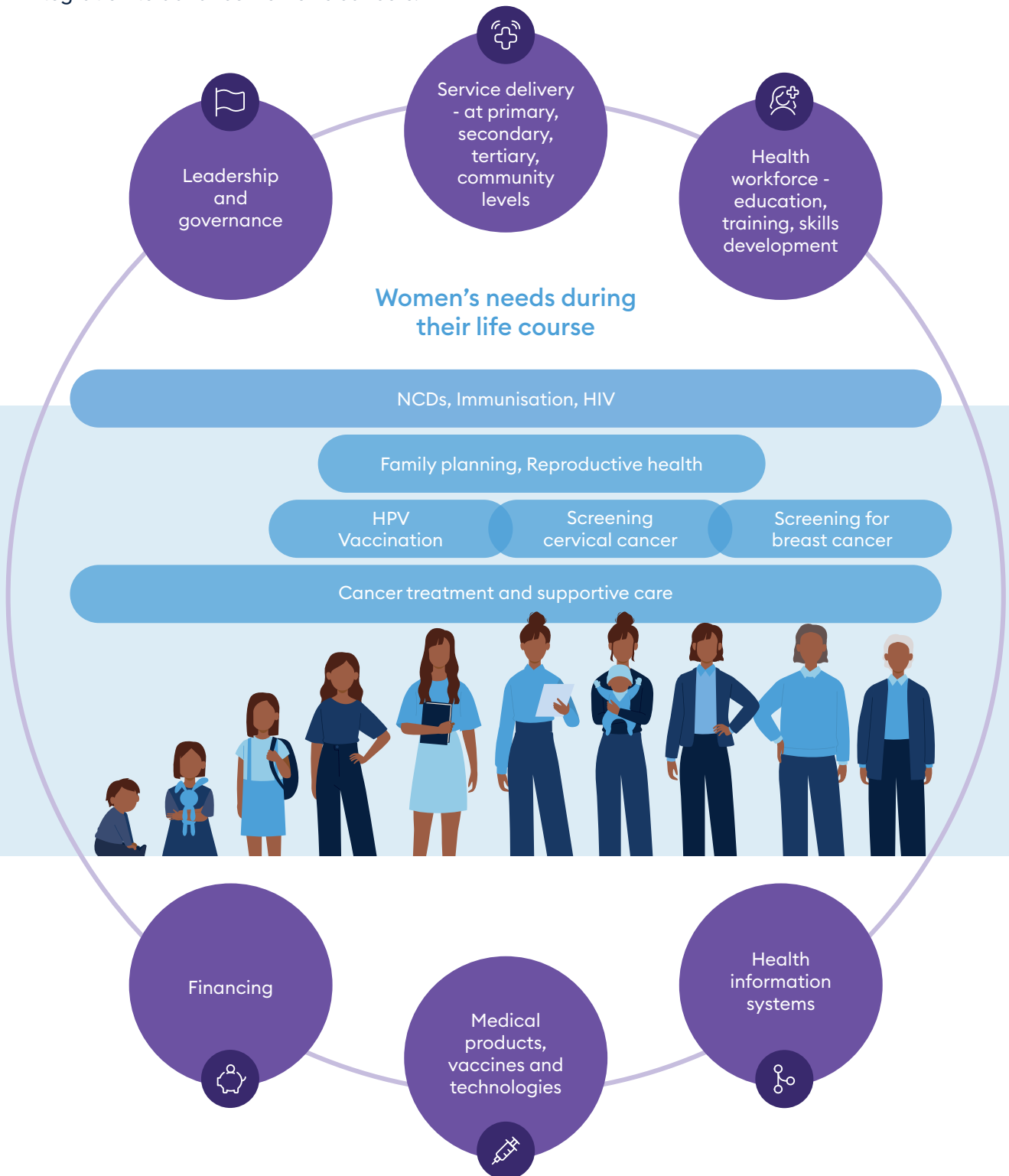
- There appears to be strong in-country support to pursue greater integration of services across NCDs, and even incremental changes in service delivery models have been shown to have significant impacts on health.
- Integrated approaches are to be sought in service delivery throughout the life course of women, but must be supported by concurrent efforts across health systems such as in governance, healthcare workforce, financing, information systems and medical products.

- Integrating and addressing women's health in a holistic way will however require contextual adaptation, with sufficient support and capacity for frontline health workers - including concurrent healthcare workforce education, a supportive policy environment, as well as ensuring that integrated approaches are considered in disease-specific programmes and funding streams.
- Although women's cancers are often referenced in NCCPs and there is increasing recognition of the importance of integrated approaches, guidelines surrounding cancer control for women's cancers are often siloed and do not tend to provide guidance on implementing integrated approaches (with the exception of the well-established associated risk of cervical cancer among women living with HIV).
- The investment case for women's cancers highlights that allocating funds to cancer prevention and control not only saves lives, but also generates an important financial return on investment. In addition, it benefits society as a whole, in terms of ensuring a healthier and more productive workforce, and maintaining the social and familial fabric.

Levels at which integration of women's cancers can take place

The below diagram brings together the views and perspectives expressed in this publication, and seeks to illustrate the opportunities for integration to advance women's cancers.

These can relate to different stages across the women's life course, levels of service delivery, as well as the different blocks of the health system.



Moving forward

- Women's needs, be it access to care, psychosocial support or financial, should be at the centre of all efforts to integrate services at a national level as well as within global health programmes, with services and policies informed by their views and experience.
- Integrated approaches for women's cancers enable specific needs of women to be taken into consideration, and result in improved outcomes and better quality of life for patients.
- With their knowledge of the communities in which they operate, CSOs are uniquely placed to advocate for and represent women's voices in policies and guidelines, implement women-centred approaches, raise awareness and demand for services.
- Efforts for integrated care delivery should ensure that the quality of care is not compromised, that services are accessible to women in an equitable manner and that waiting times for women are not increased.
- Alongside greater overall investment in the cancer workforce to address the growing cancer burden, expectations on the healthcare workforce to deliver integrated services should be appropriate to the context, and accompanied by the necessary training, and ongoing supportive supervision.
- In the development of international and national guidelines and strategies, the opportunities for integration should be clearly considered and referenced, with practical recommendations provided where supporting evidence is available.
- In terms of financing of women's cancers, it is critical that disease-specific approaches consider the opportunities for integration to ensure that available resources can support women-centred care, and leverage efficiencies.



References

1. NCD Alliance. Integrating noncommunicable disease prevention and care into global health initiatives and universal health coverage; 2021.
2. Ginsburg O, Vanderpuye V, Beddoe AM, et al. Women, power, and cancer: a Lancet Commission. *Lancet*. 2023;S0140-6736(23)01701-4. doi:10.1016/S0140-6736(23)01701-4



Editorial Committee



UICC would like to acknowledge the invaluable support of the Editorial Committee in the development and review of this publication.

Partha Basu,
International Agency for
Research on Cancer, France

Anna Cabanes,
Global Focus on Cancer, USA

Kirstie Graham,
Union of International Cancer
Control, Switzerland

Somesh Kumar,
Jhpiego, USA / India

Joanna Laurson-Doube,
NCD Alliance, Switzerland

Maura McCarthy,
Jhpiego, USA

Lydia Pace,
Brigham and Women's Hospital
/ Harvard Medical School, USA

Anne Rositch,
Johns Hopkins Bloomberg
School of Public Health, USA

Kathleen Schmeler,
MD Anderson Cancer Center,
USA

Zuzanna Tittenbrun,
Union for International Cancer
Control, Switzerland

Sabrina Zucchello,
Union for International Cancer
Control, Switzerland

This publication is supported by:





For additional information,
please contact

info@uicc.org



Union for
International
Cancer Control

T +41 22 809 1811
info@uicc.org

31-33 Avenue Giuseppe Motta
1202 Geneva, Switzerland

uicc.org