

STRATEGIES FOR ACCELERATING ACCESS TO TREATMENT FOR ADVANCED CERVICAL CANCER IN SUB-SAHARAN AFRICA

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On June 17 and 18, 2021, the George W. Bush Institute hosted a multistakeholder consultation meeting focused on “Strategies for Accelerating Access to Treatment for Advanced Cervical Cancer in Sub-Saharan Africa.” Each day began with an opening session, followed by facilitated small group discussions centering on five different topics, with a debriefing panel closing each day.

The Bush Institute is grateful to the facilitators who contributed their time, expertise, and experience to bring out critical conversations during the two-day meeting, which allowed us to compile this comprehensive report.

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- Dr. Irene Chidothe, Clinical Oncologist, Deputy Head, Cancer Department, Queen Elizabeth Central Hospital, Blantyre, Malawi
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- Dr. Andre Ilbawi, Technical Officer-Cancer Management, Department of Non-Communicable Diseases, World Health Organization Headquarters
- Dr. Sharon Kapambwe, Technical Officer Cervical Cancer, World Health Organization Regional Office for Africa
- Dr. Nomonde Mbatani, Head of Gynaecology Oncology, Groote Schuur Hospital/University of Cape Town, Cape Town, South Africa
- Ms. Karen Nakawala, cervical cancer survivor & CEO/Founder, Teal Sisters Foundation, Lusaka, Zambia
- Dr. Khita Phiri, Anatomical Pathologist, Eswatini Central Laboratory, Eswatini
- Dr. Ani Shakarishvili, Special Adviser, Access to Treatment, Care and Integration, Joint UN Programme on HIV/AIDS (UNAIDS), Geneva
- Dr. Lisa Stevens, Director, International Atomic Energy Agency/Pact Leadership

EXECUTIVE SUMMARY



Cervical cancer is a disease of inequity and differential susceptibility. The most common cause of cervical cancer is persistent infection by the human papillomavirus (HPV). Other factors that contribute include inadequate screening levels, socioeconomic status, lack of health care access, little public awareness, and, critically, coinfection with HIV. Indeed, the link with HIV is particularly relevant in Africa: Women living with HIV (WLHIV) are six times more likely to develop cervical cancer than women without HIV. Many WLHIV live in low- and middle-income countries (LMICs), where the rate of coinfection is high. Seven times more women will die of cervical cancer in sub-Saharan Africa this year than in North America and Western Europe. This is unacceptable.

The good news is that cervical cancer has garnered increased attention, and we all know that it can be prevented and treated if it's caught early. That's why both vaccination and screening programs remain essential to reducing the burden of cervical cancer worldwide.

At the George W. Bush Institute, we're glad to be part of the Go Further partnership with PEPFAR, UNAIDS, Merck, and Roche to tackle cervical cancer, especially among WLHIV.

But even with the critical progress we've made in screening – especially over the past three years through the increased focus and funding from PEPFAR as part of the Go Further partnership – we're still losing thousands of women to avoidable cervical cancer death every year. Resources have been infused into the front end of the continuum of care, particularly for screening and treatment of precancerous lesions, while resources and infrastructure for advanced treatment haven't kept pace. We need to accelerate resources and creative thinking for advanced cancer treatment so that we don't keep losing women across sub-Saharan Africa to cervical cancer. COVID-19 lockdowns, restrictions, and fear have only exacerbated existing challenges.

But at the Bush Institute, we are optimists. We know that the tools and the resources exist to close this gap and give women the chance at the healthy and vibrant lives that they and their children deserve.

We have seen progress, but more remains to be done. Let's work together to beat the burden of cervical cancer and to improve the lives of women and families around the world today. We have no reason to wait.

INTRODUCTION AND BACKGROUND TO THE MEETING

Like HIV/AIDS, cervical cancer is a disease of inequality, with sub-Saharan African countries experiencing the greatest burdens of both diseases. In Southern Africa, for example, the majority of cervical cancer is related to HIV, with as many as 75% of cervical cancer cases linked to HIV in Eswatini.¹ This interlink between cervical cancer and HIV makes cervical cancer the No. 1 cause of cancer-related deaths among women in sub-Saharan Africa because of an intersection of health, gender, social, and geographic disparities.

Go Further, an innovative public-private partnership between the U.S. President's Emergency Plan for AIDS Relief, the George W. Bush Institute, UNAIDS, Merck, and Roche seeks to address this. The partnership aims to reduce new cervical cancer cases by 95% among women living with HIV (WLHIV) in 12 sub-Saharan African countries by integrating and scaling up cervical cancer screening services and treatment for precancerous lesions within existing platforms for HIV treatment and women's health. The Bush Institute and PEPFAR have partnered in this space since 2011. Since Go Further was launched in 2018, PEPFAR has invested over \$93 million toward this partnership through fiscal year 2021. Through the end of same period, PEPFAR had supported over 1.5 million screenings for WLHIV. More than 1.3 million screenings were for women screened for the first time. Further information on Go Further can be found in the appendix.

“We need high expectations that are grounded in the belief that the dignity of all women across the world matters... We reject that it's somehow just too hard, because it's not.”

- Dr. Shannon Hader

Assistant Secretary General, United Nations/Deputy Executive Director of Programme, Joint UN Programme on HIV/AIDS (UNAIDS)

While screening and treatment for precancerous lesions continues to expand, women in sub-Saharan Africa are still dying at disproportionately high rates. In 2020, nine out of 10 women who died from cervical cancer were from low- and middle-income countries (LMIC), including sub-Saharan Africa, the region with the highest mortality rates from the disease.² Cervical cancer's effect on families is intergenerational. In addition to its impact on the patients themselves, children whose mothers die of cervical cancer are more than 70% less likely to reach their fifth birthdays.³

In 2018, the World Health Organization (WHO) launched its *Global Strategy to Accelerate the Elimination of Cervical Cancer as a Public Health Problem*, with “90–70–90” triple-intervention elimination targets. At the World Health Assembly in 2020, all WHO member states endorsed the plan – the first elimination strategy for a cancer in WHO's history. The goal is to vaccinate 90% of girls by age 15, screen 70% of eligible women with a high-performance test at specified age intervals, and reduce mortality by treating and providing care to 90% of women identified with precancerous lesions and invasive cancer disease.⁴ Achieving these targets by 2030 hinges on improvements across the entire continuum of care, from screening through to diagnosis, treatment, care and survivorship, plus the support and harmonization of appropriate policies and guidelines as well as resourcing, both human and financial.

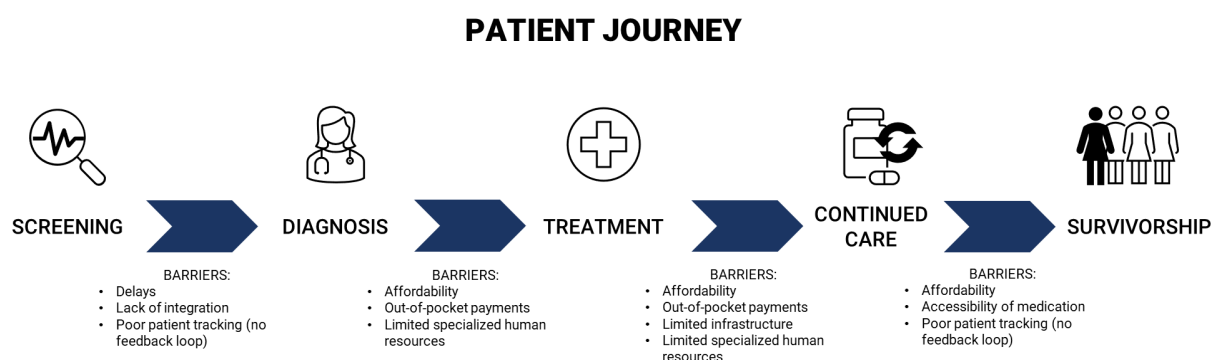
² Globocan. (2020). Cervix uteri fact sheet. <https://gco.iarc.fr/today/data/factsheets/cancers/23-Cervix-uteri-fact-sheet.pdf>

³ Fukuda-Parr, S., Yamin, A. E., & Greenstein, J. (2014). The power of numbers: a critical review of millennium development goal targets for human development and human rights. *Journal of Human Development and Capabilities*, 15(2–3), 105–117.

⁴ World Health Organization. (2020). Global strategy to accelerate the elimination of cervical cancer as a public health problem. <https://www.who.int/publications/i/item/9789240014107>

Throughout the patient journey⁵ (depicted in Figure 1), women must confront and overcome multiple barriers. These include personal obstacles such as affordability and funding for medical care, significant and pervasive stigma, and systemic challenges such as integration of health care and other services and the availability of specialized services and infrastructure. While patient-journey support has evolved and improved significantly for HIV/AIDS through decades of prioritization and multisectoral and community engagement, similar linkage support does not widely exist for cancer, including cervical cancer, leading to time delays and limited patient follow-up and needs-based support.

Figure 1: Patient journey and some common barriers



Comprehensive cancer control requires the inclusion of all elements across the cancer prevention and care continuum. National cancer control plans need to be people centered, country and local context specific, evidence informed, and sustainably funded to be implemented against the 2030 WHO cervical cancer targets.⁶ Existing guidelines and policies are often modified from international guidelines and are not necessarily informed by in-country realities, leading to incongruences between policies, plans and resources allocation.

Despite the broad recognition of cancer as a global public health problem, it receives disproportionately low funding in LMICs. Noncommunicable diseases, including cancer, are projected to become the major contributor of morbidity and mortality in LMICs by the year 2030. Sub-Saharan Africa is projected to contribute 70% of the global cancer mortality by 2030.^{7,8} Despite the increasing burden of noncommunicable diseases, infectious diseases remain the top priority for health care expenditure in the majority of LMICs. Between 2000 and 2018, the distribution of development assistance recorded for noncommunicable diseases accounted for only 2% of funding.⁹ The current health care expenditure from governments and cooperating partners toward noncommunicable diseases has yet to specify cancer, or cervical cancer treatment in particular.^{10,11,12}

Within the cancer journey, secondary prevention programs (specifically screening), receive significant

- 5 Dalton, M., Holzman, E., Erwin, E., Michelen, S., Rositch, A.F., Kumar, S., Vanderpuye, V., Yeates, K., Liebermann, E.J. and Ginsburg, O. (2019). Patient navigation services for cancer care in low-and middle-income countries: a scoping review. *PLoS One*, 14(10), p.e0223537.
- 6 Romero, Y., Trapani, D., Johnson, S., Tittenbrun, Z., Given, L., Hohman, K., & Ilbawi, A. M. (2018). National cancer control plans: a global analysis. *The Lancet Oncology*, 19(10), e546–e555.
- 7 World Health Organization. (2021). Technical specifications of radiotherapy equipment for cancer treatment. License: CC BY-NC-SA 3.0. <https://www.who.int/publications/i/item/9789240019980>
- 8 World Health Organization. (2021). Global strategy to accelerate the elimination of cervical cancer as a public health problem. <https://www.who.int/publications/i/item/9789240014107>
- 9 The Economist Intelligence Unit. (2020). Global action on financing cervical cancer elimination: Funding secondary prevention services in low resource settings. The Union for International Cancer Control, Expertise France, &Unitaid. https://www.uicc.org/sites/main/files/atoms/files/eiu_uicc_global_action_on_financing_cervical_cancer_elimination.pdf
- 10 Ibid.
- 11 World Health Organization. (2016). Public financing for health in Africa: from Abuja to the SDGs (No. WHO/HIS/HGF/Tech. Report/16.2). <https://www.afro.who.int/publications/public-financing-health-africa-abuja-sdgs>
- 12 Lombe et al. (2021). Zambia cervical cancer control program resource mapping: Leveraging support to achieve the 90-70-90 elimination target. *Journal of Cancer Policy*, 28(100281). <https://www.sciencedirect.com/science/article/abs/pii/S2213538321000126>

support in some countries by PEPFAR, as part of the Go Further partnership, and Unitaid, among others. But primary prevention (vaccinations) remains underfunded in sub-Saharan Africa. Though many low-income countries are eligible for aid from Gavi, the global vaccine alliance, there has been a slow nationwide scale-up of HPV vaccination campaigns in most sub-Saharan African countries. Tertiary care, which can include surgery, chemotherapy, radiation therapy, or a combination, is almost entirely funded by individuals in LMICs, especially the patients themselves and their families, making treatment unattainable for most of the population. An analysis of 2018 health spending shows that LMICs continue to rely heavily on family out-of-pocket payments, with limited government assistance or use of social health insurance schemes.¹³ In the face of already constrained public health care resources, the COVID-19 pandemic exposed the fragility of Africa's public health sector, revealing the acute shortage of critical equipment and services¹⁴ and reprioritizing any available resources toward COVID-19.

Lessons learned from the successes in responding to the HIV epidemic and cervical cancer screening programs in sub-Saharan Africa have shown the benefits of adopting an integrated systems perspective. In lower resource settings like most sub-Saharan African countries, it is critical to consider the interconnected factors around cervical cancer patient journeys.

The two-day meeting hosted by the Bush Institute in June 2021 particularly focused on the need to accelerate services around advanced treatment for cervical cancer, which might include proper diagnosis followed by a treatment plan that can involve surgery, radiation therapy, chemotherapy, or a combination. These discussions, however, recognized that it is not only the availability of these services but the system in which they are established that will facilitate better access for women who need them. These were the five main discussion topics covered during the meeting:

- Patient support
- Linkage to treatment, including early and quality diagnosis
- Optimization of existing treatment options
- Harmonized in-country guidelines and policy
- Innovative finance for advanced cervical cancer treatment

Specific objectives of the Bush Institute cervical cancer meeting included the following:

Documenting barriers to advanced cancer treatment accessibility and possible solutions or strategies to address them.	Discussing examples of successful cancer treatment accessibility and infrastructure scale-up in low(er)-resource settings.	Disseminating a report of meeting discussions for forward action by invited meeting participants and a broader audience.
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With the overarching goal of understanding pain points along the patient journey and increasing linkage (inclusive of timely diagnosis) to quality treatment for cervical cancer patients, these were the meeting's anticipated outcomes:

- The elevation of strategies and solutions to address barriers to advanced cancer treatment, specifically for cervical cancer, in sub-Saharan Africa.
- The adoption (or adaptation) of proposed strategies or solutions by policymakers, policy implementers, implementing organizations, and others.

¹³ The Economist Intelligence Unit. (2020).

¹⁴ Biegon, J. (2020, April). 19 years ago today, African countries vowed to spend 15% on health. *African Arguments*. <https://africanarguments.org/2020/04/19-years-africa-15-health-abuja-declaration/>

The meeting brought together a diverse group of over 100 stakeholders, including representatives from national ministries of health of countries from Eastern and Southern Africa, affected communities and cervical cancer survivors, activists, advocates, multilateral organizations, U.S. government agencies, international and local nongovernmental organizations, health care providers, program implementers, and the private sector. The recommendations proposed in this paper are the ideas of the participants. The collective exchange of ideas from a diverse set of stakeholders forms the base of this report.

Ms. Lydia Musonda, Go Further Beneficiary and Cervical Cancer Survivor from Zambia

"I'm 29 years old. I'm the firstborn in the family, my mother is a widow, and I'm a mother of two who is single. I'm the one who's supporting my family. What happens if I die? Who's going to look after my family, especially my children? I didn't know what to do. I'm still young, I also need to get married one day; what happens if I get married and I can't conceive? In the business that I do, and the workers that I have, they also depend on me, they also have family – if I die today, what happens to them? There are things that I couldn't do the time I was sick, because cancer is something very, very painful. I used to have a self stigma; I was isolated from my friends. It wasn't easy for me, but, after the treatment, everything went back to normal, I can do my business – although my business went down because I couldn't do the marketing that I used to do. But as of now, I'm trying, I'm grateful, especially to God, for the treatment I got."

PATIENT SUPPORT



Conversation overview

Access to quality and timely prevention, screening, diagnosis, treatment, and care is hindered by societal and economic barriers and inequalities in many LMICs and low(er)-resource settings. Patients in need of cancer care encounter multiple obstacles which prevent or interrupt treatment – from access to services (such as unaffordable services, time, transportation, and child care) to supportive recovery environments (such as shelter, child support, nutrition, or mental health). In addition, many women in sub-Saharan Africa encounter challenges related to gender norms and household responsibilities, power dynamics, and cultural norms. Any hope for disease control and health equity is linked to holistic whole-of-person approaches and support. This session explored the systemic barriers that exist throughout the patient journey, particularly access to advanced cancer treatment, and was aimed at proposing strategies to address those for cervical cancer patients, including WLHIV.

What are the challenges of patient support?

Patients face a series of barriers in their journey with cervical cancer, according to cervical cancer survivors, patient support groups, and experts.¹⁵ These barriers can be grouped into the following categories: individual patient needs, health systems, leadership and political will, and social and cultural norms. Solutions to these challenges must be approached from a patient-centric and whole-of-person care and support perspective.

How should every woman be supported?

When a woman is diagnosed with cervical cancer, the diagnosis does not have to be a death sentence. But for many women in sub-Saharan Africa, it is. What might it look like for every woman to have a sense of hope and possibility upon diagnosis? We know that this is possible in sub-Saharan Africa as the infusion of resources – particularly from PEPFAR – and political will turned the tide of the HIV pandemic in the early 2000s. Back in 2000, only the most affluent could access treatment and care for HIV.

Every woman deserves care and support from her family and community, ensuring the access to resources to seek treatment and take care of her health. While a woman receives treatment, she should have peace of mind about her household and her children's care. Every woman should be embraced by health care workers who are compassionate, competent, and hopeful, cheerfully holding her hand from one stage of care to the next, knowing that, at each stage, she will receive necessary, timely, quality medical treatment. Every woman should be unconstrained by the financial burden of treatment – for herself or her family – and, once she has fulfilled her treatment, be supported in living a long and productive life. Every woman should have the support not just to survive but to flourish.

¹⁵ Twahir, M., Oyeseun, R., Yarney, J., Gachii, A., Edusa, C., Nwogu, C., Mangutha, G., Anderson, P., Benjamin, E., Müller, B. and Ngoh, C. (2021). Real-world challenges for patients with breast cancer in sub-Saharan Africa: a retrospective observational study of access to care in Ghana, Kenya and Nigeria. *BMJ open*, 11(3), p.e041900.

Overview of Challenges and Solutions

Individual Patient Needs

Challenges/Barriers	Opportunities and/or Solutions
<p>Women experience a range of personal barriers throughout the patient journey. A lack of literacy and awareness prevents patients from accessing necessary care. Over and above personal financial constraints, access to care is hampered by geographic accessibility of services and transportation challenges, particularly for women residing in remote/rural areas and those with physical or other disabilities. There is a lack of accommodation for medium- or longer-term care, and women who require treatment must balance their personal health needs against household and child care responsibilities.</p> <p>In addition, women must navigate the psychosocial implications of disease, treatment, and recovery and may experience emotional and mental health needs which are typically inadequately supported. There are insufficient wraparound services to support families of clients with cancer.</p> <p>Survivors face the challenge of rebuilding their lives socially and economically, often having used many of their resources for treatment.</p>	<p>These barriers can be overcome by expanding facilities and their services and innovating specifically around women’s needs – such as travel between their homes and facilities, temporary housing while receiving services and care, child care during treatment, and financial support necessary to secure access throughout their patient journey.</p> <p>The provision of psychosocial support is essential to ensuring women remain committed to their healing journey, grow in resilience, and maintain hope. Post-treatment financial support is also critical to ensure the socioeconomic freedom of health.</p> <p>Expansion of awareness and sensitization campaigns to women and health care professionals can further support equitable access to quality care for every woman. This could include reverse referrals or feedback to referring facilities with advanced care plans.</p>

Mrs. Laura Bush, former First Lady of the United States

“Losing women to a preventable and treatable disease like cervical cancer is unacceptable. Women in Africa deserve the same access to screening and health care that women in America enjoy.”

Social and Cultural Norms

“Human development is endangered unless it is engendered.”

- United Nations Development Programme

1995 Human Development Report

Challenges/Barriers

Social and cultural norms frequently prevent women from seeking and accessing timely lifesaving preventative, diagnostic, and treatment services. They can also keep women from the support they need throughout their patient journeys. Societal roles and rules prescribed for women reduce their chances of accessing or continuing treatment and care. In some cases, partners or family members discourage or forbid women from seeking care and even screening and may be emotionally and financially unsupportive during the women's treatment journey. In some settings, women have insufficient control over household finances to access the treatment and support they need.

Traditional and religious norms may discourage women from seeking care. Some women seek support from traditional healers and religious leaders and may not reach medical facilities within a treatable window.

Misconceptions and social perceptions about symptoms, such as vaginal bleeding, prevent women from seeking help, and frequent gender-based and intimate partner violence against those diagnosed with cervical cancer reinforces women's fears around seeking care.

Opportunities and/or Solutions

Advocacy among women, in communities, and among health care workers can combat the myriad social and cultural barriers preventing access to cervical cancer care. Raising awareness and improving knowledge around the disease – its symptoms, causes, prevention, and treatment – is critical.

Civil society organizations should engage traditional and religious leaders in awareness and advocacy campaigns that address social and cultural norms and stigma.

Assisting women in reaching and remaining in care requires improving the affordability and accessibility of quality services. They include transportation and financial and family support. Creating social and psychosocial structures is also critical, as is involving women's partners, families, and communities to make environments enabling. Addressing these needs will allow women to manage their daily responsibilities without compromising their health, well-being, and quality of life.

Equitable access to and use of quality and timely screening, diagnostic, treatment, care, and support services – which allow women to live lives free from cervical cancer and to ensure their well-being and quality of life – is essential in advancing both the gender and health rights of women. Therefore, ensuring adequate funding and other resource allocation for patient support services is as critical as direct service delivery.

Health Systems Efficiencies and Person-Centered Services

Challenges/Barriers

National and local health and social systems prioritize primary care and prevention and are therefore left with few resources to help guarantee that cervical cancer patients obtain a full continuum of health and social services. This leads to gaps that hamper systems' capacity to hold health as a general human right: inability to ensure full appropriate awareness and health literacy in communities or even among health care providers; insufficient specialist expertise; insufficient upskilling through on-the-job training; shortages of auxiliary competencies such as subspecialists and social workers; and lack of adequate resources and infrastructures and coordination and collaboration between health and nonhealth sectors and subsectors. Even where services are available, they are unaffordable and burden women and their families financially. Donors and partners do step in to provide services and support, but the sustainability of these interventions is not guaranteed.

National and local directories for cervical cancer and support services and referral systems are not available, and that prevents women from accessing things like same-day care and discourages necessary patient follow-ups. The absence of cancer registries could be an added obstacle, preventing the system from picking up patients that drop off along the referral pathway or fail to make it for scheduled follow-ups.

Opportunities and/or Solutions

A commitment to developing innovative localized solutions and the adoption of a patient-centric approach would improve systemic challenges and inefficiencies. Health care workers and health insurance providers must be updated and capacitated to adapt to advances in treatment and care. Ensuring the engagement and support of local communities – including affected groups of women, women at risk of cervical cancer and HIV, and WLHIV – is critical to achieving a high level of awareness. It's also important when it comes to generating demand for health services, continuum of care, community-led interventions, direct support for affected women and their families, and advocacy and accountability.

While systemic changes can play an important role in encouraging sustained government support, targeted, on-the-ground interventions can facilitate home-grown solutions and innovations which can be carried out sustainably. These solutions may differ based on context. Examples include data-informed referral systems, patient support navigators and navigator facilities, easily accessible information sources such as hotlines, mechanisms to access treatment when pathway services fail, and improved communication strategies.

Making sure patients and their families have help navigating through care systems and settings is critical when it comes to ensuring timely access and real-time communication with patients along the continuum of care. This can be done by special navigator nurses or other health or community workers.

Political Will, Commitment, and Leadership

“Policy without resource is poetry.”

– Wondu Bekele

Founder and Executive Director, Mathiws Wondu-
YeEthiopia Cancer Society

Challenges/Barriers

Human resources and infrastructure – including health care facilities, equipment, commodities, technologies, and funding – toward patient support is inadequate in many countries. There are generally few national and local health and nonhealth budget allocations for noncommunicable diseases including cervical cancer, not to mention health awareness and health promotion and literacy, social and other support services, gender equity, and community mobilization and engagement. For example, while efforts to scale up cervical cancer screening may receive strong commitments from politicians and health sector leaders, these often do not materialize in treatment, care, and the support of common patient needs.

Opportunities and/or Solutions

For women to lead long and healthy lives, ensure their – and their families’ – well-being and quality of life, stronger community-engaged advocacy must be prioritized, as must the accountability of countries in ensuring health rights in general and those of women in particular. Stakeholders on cervical cancer care must continue to apply unified and continuous pressure on national and local leaders, decision-makers, and donors that translates into concrete plans. Political support must be accompanied by strategic plans and budgetary commitments at both the national and local levels.

Figure 2 shows the results of the discussions on patient support, depicting how the two days of dialogue changed the level of optimism and forward-looking perspectives of the participants.

Figure 2: Graphics from the patient support discussion room

Day 1 (focused on barriers)



Day 2 (focused on solutions)



LINKAGE TO TREATMENT, INCLUDING EARLY AND QUALITY DIAGNOSIS

Conversation overview

Women living with HIV (WLHIV) are at an increased risk for cervical cancer and are known to experience more rapid disease progression.¹⁶ Linkage to timely care is a crucial step when it comes to optimizing outcomes. The chance at a cure lies in a well-navigated patient journey: The timeline between screening and diagnosis and between diagnosis and treatment should be as short as possible. This session explored the obstacles and bottlenecks in the patient journey and proposed strategies to increase timely diagnosis and link to quality treatment for cervical cancer patients and WLHIV.

What are the challenges on the treatment journey?

The coordination of patient care relies on complex and interdependent processes involving laboratory, technical, clerical, and human interpretative activities. But this type of complexity has and can be addressed as it was with HIV. It requires listening to the clients and addressing the issues in a systematic, focused, and data-driven manner. From screening to biopsy, and from biopsy to treatment, there exist barriers for patients – such as stigma, myths, and the costs to access services – and for medical facilities – such as infrastructure deficiencies or supply shortages. These challenges are underpinned by policy constraints, such as a lack of policy or policies which exclude advanced treatment. These then impact budgetary commitments and much-needed funding toward diagnosis.

A well-defined diagnostic ecosystem

Through the joint efforts of partners such as PEPFAR, over 1.5 million screenings were completed in sub-Saharan Africa from fiscal year 2018 to fiscal year 2020. In terms of treatment, some progress has been made, but more needs to be done. Of women who screened positive for precancerous lesions in Go Further countries, treatment rates have increased to 67% in 2020 from 58% in 2018.¹⁷ But due to the challenges associated with post-screening linkage to tissue diagnosis and treatment, a woman who has been successfully reached through screening programs is not guaranteed treatment, particularly if she presents with suspected invasive cervical cancer. A well-functioning diagnostic ecosystem is one in which screening is not the end of the story, women need not spend days traveling long distances to multiple facilities in search of comprehensive diagnosis and treatment, existing courier systems for sample collection and transportation for HIV and cervical cancer cytology could be effectively utilized, access to experienced staff and well-stocked facilities isn't determined by where a woman lives, and women with a positive diagnosis are encouraged by success stories and supported by a community of survivors. It is one in which turnaround times from screening to diagnosis have been reduced to a matter of days from several months; clinical staff are part of a cross-functional team including physicians, pathologists, laboratory technicians, nurses, patient navigators and laboratory administrative staff who are equipped with all the resources they require and motivated to make a difference; and health service pathways effectively support treatment of multiple diseases.

16 Rohner, E., Bütikofer, L., Schmidlin, K., Sengayi, M., Maskew, M., Giddy, J., Taghavi, K., Moore, R.D., Goedert, J.J., Gill, M.J. and Silverberg, M.J. (2020). Cervical cancer risk in women living with HIV across four continents: a multicohort study. *International Journal of Cancer*, 146(3), pp.601-609

17 George W. Bush Institute. (2021). https://gwbcenter.imgix.net/Publications/Resources/Go_Further_Highlights/2021_Q2/GoFurther_GlobalHighlights_Q2_2021_Final.pdf

Overview of Challenges and Solutions

Patient-Related Challenges in the Diagnostic Journey

Challenges/Barriers	Opportunities and/or Solutions
<p>There remains a lack of awareness and information about the need for cervical-cancer screening and access to services – as well as the importance of timely treatment and follow-up. Communal and self-imposed stigmas and myths about cervical-cancer screening remain a barrier to timely diagnosis.</p> <p>Some social norms and cultural barriers prevent women from making decisions regarding their health; linkage to treatment is hindered in cases where women require consent from a spouse or partner for cervical cancer screening or treatment.</p> <p>Women facing cancer diagnoses require clarity, guidance, and assistance navigating the complex treatment journey. When they are absent, it hinders the quality and timeliness of treatment. In addition, there is insufficient psychosocial support for women with cancer and their families.</p> <p>Socioeconomic barriers to accessing services persist: the time, distance, and costs associated with travel to facilities (particularly for women requiring multiple visits to multiple facilities in the management of advanced cervical cancer); the cost of preliminary processes (which many patients pay out of pocket) such as pathology and tissue diagnosis required before any further interventions; and the unaffordability of advanced treatment.</p> <p>In places where linkages and treatment services do not exist in-country, patients must travel to neighboring countries to access treatment, with cost implications for governments and patients (e.g., patients traveling from Zimbabwe to South Africa, from Malawi to Zambia, and from Rwanda to Kenya).</p>	<p>Improving access at early stages of the patient journey requires increased public awareness about cancer diagnosis, treatment, and survivorship. Outreach campaigns should involve expert patients, advocates, community health workers, and survivors to reduce stigma and improve understanding and education at the community level and at institutions of learning. Success may be enhanced through human-centered design approaches and the use of digital and social media to destigmatize cervical cancer and inspire health-seeking behavior. Access to cervical cancer treatment highlights the intersection of global health and gender rights efforts. Broadening awareness and availability of care necessitates public education around vaccination and treatment that targets not only women and girls but also the support of men and key male opinion leaders.</p> <p>Improving linkages from screening to treatment requires the integration of cervical cancer services at the community health level. This includes the need for patient navigators to guide and support women through the treatment process. The development of innovative digital solutions may also help.</p> <p>Some countries have overcome early-stage patient-related cost barriers through systems-level and laboratory-level interventions such as cross-subsidization of pathology and treatment costs at a national procurement level (e.g., Ethiopia).</p> <p>In countries where services are lacking, regional exchange agreements to facilitate intercountry treatment support and medical tourism may offer an interim solution. This requires the establishment of national panels to facilitate regional collaborations between ministries of health. But in the longer term, resources being spent on cross-border medical treatment should be redirected to build in-country capacity.</p>

Medical Facility-Related Challenges

Challenges/Barriers	Opportunities and/or Solutions
<p>Despite advances among local health centers and personnel, challenges at medical facilities are characterized by infrastructure deficiencies and inefficiencies in the diagnostic work-up journey that require patients to make multiple visits to multiple facilities for staging investigations prior to definitive treatment. Logistical challenges arise as screening and biopsy services are often not co-located, causing delays in diagnosis and the initiation of treatment. Infrastructure, equipment, and specialized treatment services (e.g., radiotherapy, chemotherapy, and surgery [hysterectomy]) at facilities are inadequate, and the limited numbers of health care personnel that can deliver comprehensive cancer care diminish the quality of care available to patients. Specific gaps and pain points differ from country to country.</p> <p>Patients commonly arrive at screening centers with symptoms, delaying their presentation for treatment. There is a need to differentiate screening (of asymptomatic patients) and diagnostic procedures (for symptomatic patients) to the referring centers to avoid current referral delays, and the minimum prereferral work-up required.</p>	<p>Establishing guidelines that are specific to cervical cancer would create systemic improvements and build capacity across the oncology sector. Existing models can provide lessons – e.g., the Breast Health Global Initiative (BHGI) at Fred Hutch Cancer Center, which has developed medical guidelines for diagnosing and treating breast cancer in LMICs, and cross-functional oncology teams that can be set up in hospitals. Calls to action in the development community can be leveraged to change how stakeholders from public and private sectors design, plan, and implement cancer solutions. An example is the City Cancer Challenge, a city-based partnership initiative launched by the Union for International Cancer Control (UICC) at the World Economic Forum’s annual meeting in Davos, Switzerland, in 2017.</p> <p>Context-specific gap analysis and solutions are key. Some examples of change may include improving, optimizing, and integrating patient-tracking systems; better linking health information systems; decentralizing services; improving and extending training on screening and diagnosis to nurses who attend consultations; or training health care teams on advanced treatment procedures.</p>

Holly Kuzmich, Executive Director at the George W. Bush Institute

“Every time I hear from [a survivor of cervical cancer], it just reminds me of how important this work is and how many women and girls’ lives we are here to touch.”

Laboratory-Related Challenges

Challenges/Barriers	Opportunities and/or Solutions
<p>Challenges experienced by laboratory services affect critical turnaround times, leading to delayed communication of results between laboratories and physicians and ultimately holding up diagnosis and treatment. Inefficiencies and obstacles to service delivery include limited numbers of pathology labs and pathologists; inadequately trained staff to obtain quality biopsies and specimen processing; a lack of standardization across workflows; internet connectivity issues; and equipment breakages or delayed servicing and technical support. In many countries, pathology services are centralized, delaying delivery of specimens and leading to processing backlogs. This also affects the quality of tissue submitted from distant referring centers.</p> <p>Logistical inefficiencies exist in specimen transport networks (e.g., nonexistent or inefficient courier systems). In some unfortunate instances, patients are required to take their own samples to labs, raising time and cost constraints. A lack of knowledge about how to handle the specimens sent for testing also impacts the quality.</p> <p>Running costs for laboratories and tissue-related pathology services are high, resulting in expensive diagnostic services, unaffordable to many patients who pay out of pocket. Without adequate budgetary allocations and dedicated funding, facilities experience frequent reagent and supply shortages.</p>	<p>Analysis of localized systems and process gaps will lead to meaningful and often surprisingly simple interventions. In addition to addressing process-specific pain points, solutions may include capacity building and training on specimen collection and quality diagnosis, hub-and-spoke systems for linking specimens with pathology labs, the development of electronic systems to track and deliver results to clients, leveraging telepathology, artificial intelligence and automation technologies to increase efficiency, and decentralizing pathology services to improve turnaround times.</p> <p>There is much to be learned from success stories: In 2019, Eswatini explored the pain points along patients' cancer journeys using a systemwide approach and found that the narrowest bottleneck was the delay experienced between the tissue biopsy sample collection and the patient receiving the histopathologic diagnosis. In 2020, Eswatini's Ministry of Health appointed a second pathologist, and that markedly reduced the turnaround times to a matter of days to weeks from six to nine months. Eswatini also utilized process gap analysis, local laboratory staff training in tissue processing, and regular deliberate interactions with the referring centers and treating physicians. In Uganda, the HIV specimen transport network was used to courier samples from facilities to the national testing lab, with results transmitted electronically. Several countries have well-functioning HIV-related sample courier systems which can be adapted to include cervical cancer tissue samples.</p> <p>Countries would benefit from the establishment and resourcing of national control units which oversee the development and implementation of policy guidelines, develop workflows, and advance the digitalization of patient services (e.g., electronic dissemination of laboratory results).</p>

Policy-Related Challenges and Constraints

Challenges/Barriers

Though variable among countries, national cancer control plans either do not exist or do not address treatment for invasive cervical cancer. This leaves cancer treatment without the requisite institutional backing. Policy/guideline incongruence, the inadequate dissemination of national policy guidelines, and limited guidance on the management of advanced cervical cancer cases all negatively impact linkage to treatment.

Inadequate or discrete funding allocations in national budgets reflect a misunderstanding from policymakers. Where funding is made available, allocations focus largely on vaccination and/or screening. This leads to the exclusion of funding for critical aspects of the treatment journey, training of health care workers, and appropriate staffing in line with the WHO's guidelines in the Human Resources for Health Action Framework.

Opportunities and/or Solutions

The phrase "prevention is better than cure" rings true even in economic terms. As part of the gender and health rights agenda, governments must be presented with evidence-based, country-specific health economics to inform the policy and business cases on the value of investing in the treatment and elimination of cervical cancer, including prevention strategies.

Investment cases for Africa can draw from learnings among international models, which differ in approach, and adapt them for country-specific contexts. For example, the European models are largely publicly driven, while the U.S. ones are mostly privatized models.

Affordability and access to services must be addressed at a policy level. Cross-subsidization of costs at the centralized procurement level should be explored, along with the establishment of funded national control units that are empowered to secure a budgetary allocation and facilitate implementation.

While political will and the prioritization of cervical cancer services are essential, private-sector engagement – such as outsourcing services to private facilities in country – and alternative financing solutions – such as public-private partnerships – may be useful to leverage additional resources for implementation.

Evidenced by strides made in generating awareness and demand for cervical cancer screening, African first ladies should continue to play an important role in using their influence and social capital to advocate for policy change and budgetary commitments toward comprehensive cervical cancer treatment services in countries.

OPTIMIZATION OF EXISTING TREATMENT OPTIONS



Conversation overview

The ideal treatment for cervical cancer patients requires technical skills and access to sophisticated technology. Existing treatment options are constrained in low(er)-resource settings, requiring increased focus on improving efficiencies in the short term to the medium term, while longer-term strategies are developed and implemented.¹⁸ Patients in sub-Saharan Africa are typically diagnosed at later disease stages when treatment costs are at their highest and curative possibilities are more limited. This poses a further challenge in the effective use of constrained resources.

This session explored existing treatments, their shortcomings, and opportunities for optimization. It aimed to propose strategies that make the most of existing treatment services for cervical cancer patients and WLHIV, including utilizing technical cooperation among developing countries in the Global South.¹⁹

What are the challenges with existing treatment options?

Why should where a woman lives determine whether she lives? Existing treatment options in lower-resource settings are constrained by time, quality, and cost and integration challenges. Delays by patients in reaching providers significantly hampers the success of treatment. Health care providers do not receive updated training and access to the latest technology and do not have access to the appropriate treatment modalities to care for their patients. As a result, both patients and service providers become discouraged by the perception that cervical cancer in these settings is incurable, leading patients to give up on their treatment journeys. Institutional barriers, poor infrastructure, and the high cost of treatment persist without the political backing to support cancer treatment, such as policy and financing.

What will improve cervical cancer treatment outcomes?

The interconnected nature of treatment services requires collaboration and coordination at scale. Outcomes are based on how efficiently the patients can navigate through the health system – from symptom presentation to biopsy and treatment – along what is a time-sensitive treatment journey. The relevant expertise and well-functioning technological infrastructure (brachy- and tele-radiotherapy with concomitant chemotherapy, and surgery), need to be readily available at the point of diagnosis to improve women's chances of survival.

¹⁸ Van Dyk, J., Zubizarreta, E. and Lievens, Y. (2017). Cost evaluation to optimise radiation therapy implementation in different income settings: a time-driven activity-based analysis. *Radiotherapy and Oncology*, 125(2), pp.178-185.

¹⁹ United Nations. (2019, March). What is 'South-South cooperation' and why does it matter? <https://www.un.org/development/desa/en/news/intergovernmental-coordination/south-south-cooperation-2019.html>

Overview of Challenges and Solutions

Health Systems

Challenges/Barriers	Opportunities and/or Solutions
<p>Women are denied the right to receive appropriate care and treatment for a myriad of reasons. They include delayed or incomplete diagnoses, a lack of drugs required for full treatment protocols, and frequent radiation treatment machine breakdowns, among other inefficiencies. This is exacerbated when expensive machines are not procured with long-term service agreements.</p> <p>The persistent unavailability of services breeds a hopeless atmosphere, contributing to declining morale among health workers, who are unable to provide the care they know is required. It also leaves some patients unmotivated to remain in treatment programs and perceiving their condition as incurable.</p> <p>In most sub-Saharan African countries, the distribution of health services between urban and rural areas is unequal. Rural areas have almost no access to comprehensive cervical cancer services. Patients in these regions must make long and tedious referral journeys to urban health centers.</p> <p>The treatment centers are poorly funded and don't have necessary equipment like computed tomography (CT) imaging machines and X-ray machines, making them unsuitable for the provision of a comprehensive treatment package. That further reduces patient confidence in seeking care.</p> <p>The health care workers who refer patients to central treating hospitals often don't assess the patients well – perhaps because of a lack of awareness or the necessary skills. This makes the job of the specialists and other health care workers who receive the patients more difficult. It also burdens the patients with repeat procedures and can lead to decreased confidence in the health care system.</p> <p>Cervical cancer treatment is significantly more expensive than other diseases and cancers. Depending on the disease stage, it may require multimodal treatment – surgery, chemotherapy, brachy- and tele-radiotherapy.</p>	<p>The WHO and the International Atomic Energy Agency have developed guidelines on how to build and scale programs to manage advanced cervical cancer, but, as countries do this, they need to include experts in their decision-making processes so that resources go where they are most needed.</p> <p>WHO member states have all adopted the organization's strategy to eliminate cervical cancer. They can also be persuaded to make reproductive health access – including comprehensive services for cervical cancer care – a human rights issue during the annual United Nations General Assembly, with the assistance of UN Women. This would help assure greater access to integrated care services.</p> <p>To decentralize services, reverse referral systems (feedback loops) can be instituted as a means of technical support and task shifting. Specialists at central locations should routinely visit referral centers to improve the patient journey.</p> <p>One can't assume that all health workers who come into contact with cervical cancer patients understand the complete patient journey and the services required at each point. There is a need to educate health workers at all levels, from community to tertiary care.</p> <p>There are also ways to get around the shortage of adequate specialists and skilled personnel in the short term, such as following the WHO's task shifting guidelines and introducing specific procedural training (e.g., specialized cervical cancer surgery) with adequate technical support structures in place.</p> <p>Institutions need to be nudged to find and apply for existing technical support training, such as the MD Anderson skills trainings for gynecologic oncologists in sub-Saharan Africa. (For example, Mozambique is utilizing this opportunity.)</p>

Patients

Challenges/Barriers

For most patients presenting with late-disease stages, curative care is even more difficult. The reasons they present late vary: They include lacking the full awareness of time-dependent disease requirements for treatment and not understanding the potential to be cured if they seek help early enough; seeking alternative medicines before presenting to the health centers; and needing to travel inhibitory long distances to centralized screening and treatment centers. For example, in Namibia, a patient can travel eight to 10 hours on public transport, and most are unable to afford the transportation expenses. The motivation to seek treatment is further hampered by the costs likely borne by the patients, such as transportation, staging investigations, and the expensive treatment itself.

Opportunities and/or Solutions

The introduction of well-trained and informed patient navigators into the public health structure has the potential to reduce the time delays along the patient care continuum in the immediate to medium term. Long-term solutions can be explored. For example, the American Cancer Society (ACS) supported a pilot patient navigation intervention in a Kenyan tertiary hospital which led to a reduction in the number of patients dropping out of treatment and markedly reduced delays along the patient journey.

Dr. Angeli Achrekar, Acting Global AIDS Coordinator & Special Representative for Global Health Diplomacy

"In 2018, we launched Go Further, focused on ensuring that women living with HIV between the ages of 25 to 49, across 12 countries in sub-Saharan Africa, have equitable access to same-day cervical cancer screening and treatment of precancerous lesions. Over 1.5 million screenings were conducted from FY18 to FY20, of which over 1.3 million were first-time screens. This is incredible work that the partnership is seeing realized. The partnership continues to be a model for how beautifully donors and partners can work together and leverage one another for our strengths, to have an opportunity to impact women's lives in a positive way. It's our privilege to continue to be a part of this partnership."

Policy

Challenges/Barriers

Current health policies lack clarity when it comes to access to cancer treatment. As cervical cancer continues to fall under the category of noncommunicable diseases, there are almost no policies guiding the coordination of services specific to its treatment. This illustrates the need for significant political buy-in to get it into a policy document.

The three levels of service provision which define the full patient journey – primary care (vaccination), secondary prevention (screening and treatment of precancer), and tertiary care (advanced treatment) – are poorly coordinated.

Treatment guidelines from international institutions continue to be modified and leave out the important factors of local context, governance and funding, and culture.

Opportunities and/or Solutions

Detailed national policies that provide clear guidance on how patients with invasive cervical cancer should receive care need to be developed. The starting point for policy formation should be political will. Politicians can demonstrate this by creating platforms for experts like practicing physicians and specialists to consult on cervical cancer issues, making clear budget allocations toward cervical cancer treatment, and mapping access to cervical cancer treatment on the national level.

The existing cervical cancer guidelines from WHO and other institutions can be used to provide a template for each country to plug in its landscape analysis of the current situation and then monitor the implementation. This will avoid the high cost of developing comprehensive treatment policies from scratch. The expenses involved in treating cervical cancer are well known and documented. But governments can expand access to treatment in the interim by creating oversight units (such as a national cancer control unit) and policies on access to treatment. Public-private partnerships also have a role to play in funding treatment solutions as they do for other disease processes. An example is chronic kidney disease treatments by Fresenius Kabi in Eswatini and Namibia.

The creation of a state cancer oversight unit can coordinate several groups doing the same thing within a country to avoid repetitive work. A bottom-up approach should be taken by government officials and policymakers to create an inclusive and engaging platform that involves the implementers of policy (health care workers). They should be able to weigh in on how to improve service provisions and tackle the treatment delays patients are experiencing.

South-to-South collaborations can be effective in creating and utilizing networkwide approaches to cervical cancer treatment.

The social capital African first ladies possess could be put to use to advocate for patients with this deadly disease in a way that highlights gender inequity. Gender equity requires access to timely and quality comprehensive cervical cancer services for all women as a health care right.

HARMONIZED IN-COUNTRY GUIDELINES AND POLICY



Conversation overview

In addition to resource limitations in sub-Saharan Africa, some countries lack effective policies and guidelines on advanced cancer treatment, which could delay their progress in meeting the WHO's 90-70-90 targets to globally eliminate cervical cancer and perpetuate the misdirection and inefficient use of resources in already constrained environments.²⁰ This session explored how guidelines suggested by global health agencies could be translated into in-country policy and how existing policies and lessons might be shared and adapted across contexts. It also aimed to propose strategies to expedite development of country-specific policies and resource-based treatment and care guidelines for cervical cancer patients and WLHIV.

What are the guidelines and policy challenges?

While some countries lack guidelines and policies for advanced cancer treatment, others are challenged by a misalignment between what is defined optimally on paper and what is available and implemented on the ground. This disconnect results in a lack of infrastructure for specialized services and subsequently a lack of associated training. While international organizations have identified their role in supporting alignment between guidelines and policy, there is a great need for adapting guidelines and policy to local contexts.

The importance of a locally contextualized cervical cancer treatment policy

Policy represents a government's commitment to its citizens. By defining the services for which governments remain accountable, government funding can be appropriately directed toward implementation of critical infrastructure and adequate resourcing of comprehensive programs. Locally developed (or adapted) treatment policies and guidelines, informed by in-country evidence and relevant to the local health system, meet specific local needs and improve local ownership and the sustainability of interventions. Localized policies can speak to the nuances of the political landscape, the regulatory and procurement environment, and cultural norms, which improve local awareness, acceptance, and adoption of interventions. Ultimately, this improves access to treatment.

²⁰ Romero, Y., Trapani, D., Johnson, S., Tittenbrun, Z., Given, L., Hohman, K., Stevens, L., Torode, J.S., Boniol, M. and Ilbawi, A.M. (2018). National cancer control plans: a global analysis. *The Lancet Oncology*, 19(10), pp.e546-e555

Overview of Challenges and Solutions

Context-Specific Policy, Plans, Guidelines

Challenges/Barriers

A review of National Cancer Control Plans (NCCPs) in 2018 showed that only 22% of LMIC have noncommunicable disease plans or NCCPs. In LMIC, only 30% of countries include treatment in NCCPs, only 11% have radiotherapy plans (which is required in 70% of treatments for cervical cancer), and only 10% have an explicit funding mechanism toward operationalizing these NCCPs.

Existing guidelines and policies are often borrowed and modified from other regions – not generated by in-country evidence – linked against the WHO 2030 targets, or clearly funded/financed. Most existing policies are very narrow, making the creation and implementation of guidelines more difficult.

In many settings, there is no clarity on the difference between policies and guidelines: Policies direct program funding and operations, while guidelines define how services are to be delivered by technocrats. This confusion leads to incongruence between the policies and guidelines and the misalignment or under-allocation of resources. While common/generic treatment guidelines exist, policies do not target cervical cancer specifically; thus, cervical cancer treatment services cannot be allocated with funding or resources. This leads to challenges across treatment, service delivery, and the health workforce (e.g., no allowance for equipment breakdowns and a lack of training in specialized services). In addition, what is described in plans may not accurately reflect what exists in the country, making plans unimplementable.

Opportunities and/or Solutions

A comprehensive control plan requires the inclusion of all elements across the cancer continuum and planning for the requisite resources. NCCPs must be evidence based and country specific. Government and political buy-in is key to ensuring that plans are financed and implemented. The International Cancer Control Partnership provides technical assistance to countries to help develop, modify, and update NCCPs and is a great resource for countries that want to have their own, specific plans for their population.

Development of country-specific policies should encourage a multisectoral approach which considers the entire ecosystem. Policy development should be country driven and informed by those with experience in the local health system, by technical support from international partnerships and institutions (e.g., WHO, UNAIDS, and the American Society of Clinical Oncology), and by cancer survivors who can demystify concepts and language. Policies should take a people-centered, holistic approach and should address quality and equity – giving attention to vulnerable populations such as WLHIV, rural women, and those facing significant socioeconomic barriers.

Policies on treatment resources should be all inclusive, touching on the situation in that country and the legal framework around issues specific to treatment, palliative care, and survivorship. For example, policy on treatment can define supply chain systems, regulation of costs, and the zero rating of essential commodities as well as establish and operationalize the infrastructure for radiotherapy.

Regional and country agencies should spell out clear starting points and avoid wish lists. They should develop country-specific policies that clearly define the cancer care continuum.

Political Support and Partnership Toward Goals

Challenges/Barriers

The NCD Global Action Plan 2025, the 2030 Sustainable Development Goals, and the WHO 90-70-90 Cervical Cancer Elimination Strategy 2030 targets define goals which require the support and active participation of countries. Programs that lack government backing have poor uptake and remain disconnected from national priorities. Most cervical cancer programs in LMICs are nongovernment funded, threatening their sustainability due to a lack of ownership and local buy-in.

While international partners and donors are interested in partnering with and supporting host countries financially and technically, the lack of policy and guidelines may keep countries from meeting engagement criteria. For example, the Global Fund is unable to assist countries where guidelines do not exist and also requires evidence-based interventions defined by equity and quality toward Universal Health Coverage (UHC).

Opportunities and/or Solutions

Government-backed programs improve acceptance, uptake, and sustainability. Government commitment should be institutionalized through clear financing models, such as the integration of the Universal Health Coverage framework and national insurance and defined access to treatment in national policies. Judiciaries should be included as stakeholders to create legal frameworks around policies.

Policies specific to cervical cancer can be linked to platforms for sustainable development goals, which already have dedicated funding models.

Advocacy, coordination, and partnership could be strengthened through the African Union, WHO, Southern Africa Development Community, East African Community, or similar organizations. Advocacy efforts should aim to change the narrative among politicians and key opinion leaders to state that cancer is not a death sentence, thereby justifying the funding required for meaningful interventions.

As an interim solution, countries without policies and guidelines may rely on international frameworks or those of neighboring countries, but countries must adapt and contextualize these to the local situation.

To avoid repeating failed strategies, in forums where policies and guidelines are discussed – such as South to South collaborations – reflections on what has not worked should be shared.

Dr. Tedros Adhanom Ghebreyesus, Director General, WHO

"We have the tools not only to prevent cervical cancer, but to eliminate it. That's why, last year, WHO launched a Global strategy for the elimination of cervical cancer. Never before has the world committed to eliminating a cancer."

INNOVATIVE FINANCE FOR ADVANCED CERVICAL CANCER TREATMENT



Conversation overview

Advanced treatment in sub-Saharan Africa remains unaffordable to publicly funded patients and the majority of middle-income families. Even in the private health care sector, patients are unaware of the full cost of treatment and the limitations of health insurance coverage.²¹ Most state-run treatment facilities experience a high downtime because of inadequate budgeting for operations and maintenance and lack of any redundancy for equipment. In addition, misguided policy directives curtail funding priorities and local financing regulations hamper much-needed service delivery. However, public-private partnerships have begun to yield results in bridging treatment gaps in a number of countries. This session explored the opportunity to effect cancer control through funding treatment strategies, removing barriers to financing advanced treatment, appropriate disbursement of funds toward treatment, and the potential role of public-private partnerships. It aimed to propose strategies for financing including public-private partnerships in cancer treatment and care.

What are the challenges in the financing of advanced cervical cancer treatment?

Financing advanced treatment in sub-Saharan Africa is hampered by four main challenges: a lack of comprehensive planning and coordination; a complicated political landscape; failure to contextualize or implement a financing approach specific to the country's circumstances; and the failure of health systems to translate investments into measurable impact to build business cases. In global health expenditure, cancer is not seen as development priority.²² Government spending toward cancer remains insufficient, owing to resource limitations, the cost of services and size of investment required, and a lack of prioritization. LMICs are paying more for cancer treatments than the proposed per capita expenditure under the WHO Universal Health Coverage package. This is due to a lack of understanding of the factors that contribute to costs: centralized service delivery which requires patients to travel from all over the country to limited facilities; limited policy and procurement frameworks; intermediary parties' involvement in procurement processes; limited interest from private investors; and too few players in the market.

²¹ The Economist Intelligence Unit. (2020).

²² Ibid.

Are Innovative Financing Solutions Possible in sub-Saharan Africa?

Opportunities exist to accelerate strategic investment in the treatment of cervical cancer. While COVID-19 has shown governments in sub-Saharan Africa the need to budget for the development of their own health systems, it has also provided evidence that solutions can be achieved at a much faster pace than previously thought.²³ With the right support, government reforms can facilitate coherency in national planning, create an enabling taxation and procurement environment for public-private partnerships, improve spending inefficiencies and oversight, and enhance investment cases which span the treatment journey.²⁴ The success of innovative finance solutions, such as social impact investments, will hinge on deepening awareness and commitment through advocacy – helping governments to understand the real women’s stories behind strategic plans and budget allocations and to lead with compassion. The provision of infrastructure and services can be achieved through deliberate strengthening of relationships between global partners, development finance institutions, and in-country ministries of finance and health as well as treasury departments.^{25,26}

23 Ginsburg, O., Basu, P., Kapambwe, S. and Canfell, K. (2021). Eliminating cervical cancer in the COVID-19 era. *Nature Cancer*, 2(2), pp.133-134.

24 World Health Organization. (2020). Public financing for health in Africa: from Abuja to the SDGs. 2016. WHO: Geneva.

25 Meghani, A. and Basu, S. (2015). A review of innovative international financing mechanisms to address noncommunicable diseases. *Health Affairs*, 34(9), pp.1546-1553.

26 Hulse, E.S.G., Atun, R., McPake, B. and Lee, J.T. (2021). Use of social impact bonds in financing health systems responses to non-communicable diseases: scoping review. *BMJ global health*, 6(3), p.e004127.

Overview of Challenges and Solutions

Planning and Coordination

Challenges/Barriers

Insufficient funding toward advanced treatment of cancer can be attributed in part to a lack of actionable plans, too few technical inputs in the planning journey, and poor coordination among stakeholders. Places with limited resources simply cannot afford the disconnect between definitive plans and resource allocation. A recent trajectory of low investment has occurred because of the exclusion of strategic investment in cancer policies, challenges with implementation, and a lack of demonstrable impact. (For example, out of \$14 billion in development finance institution investment in sub-Saharan Africa, only about \$30 million was invested toward noncommunicable diseases, which included tobacco control.) Despite increased access to key decision-making platforms, advocacy efforts have failed to deliver targeted messages and technical recommendations and have been unable to set clear priorities to unlock and direct funding where it is critically needed. These challenges have kept cancer financing from featuring among the long-term priorities of governments.

Opportunities and/or Solutions

With the WHO 90-70-90 targets only nine years away, concerted action must be taken to achieve them. To start, this requires clear and comprehensive fiscal planning that spans the treatment journey, achievable priorities against which ongoing success can be measured, and adherence to planning commitments. Multiple competencies, including technical expertise, are required among planning stakeholders to ensure that appropriate solutions are proposed and their costs understood and budgeted for by government and funding partners. Developing strong investment cases for internal and external partners – and translating them into long-term sustainable investments for services solutions (such as equipment and long-term maintenance contracts) – requires an ecosystem perspective which considers clinical services over an extended period. Dynamic, evolving models should be developed to meet the short- and long-term financing needs for workforce enablement.

Dr. Nono Simelela, Assistant Director-General for Strategic Programmatic Priorities: Cervical Cancer Elimination, WHO

“Depending on where you were born and where you live, you had a chance to be diagnosed and treated, or you face this protracted death, so [WHO] called for the elimination of cervical cancer. Member states now must step up to the table and commit to leaving behind a legacy that will not condemn young girls living today to a future with cervical cancer.”

Contextual / Innovative Finance

Challenges/Barriers

A complicated political landscape and regulatory barriers pose difficulties for constructive engagement around fiscal and regulatory reforms, constraining the investment environment. (For example, commodity pricing approaches are not holistic.) Perceptions of weak governance and corruption among private companies, partners, and governments create further barriers to investment and the provision of longer-term services.

The treatment protocol packages designed for LMIC by international partners do not fit the local context, infrastructure, or resources, making them unlikely to be adopted. This creates a barrier to uptake and appropriate budgetary allocation. Without country-specific treatment protocols, the demonstration of cancer investment cases and the engagement of centralized government treasuries are moot in most sub-Saharan African countries, and successful examples of public-private partnership models for cancer service provision are scarce.

Opportunities and/or Solutions

To transform the landscape, governments will need to prioritize regulatory interventions and funding and, together with financing partners, build longer-term capacity and innovative models which harness the opportunities available within public-private partnership frameworks. Dialogue should be encouraged between governments and external partners to enhance learning and explore successful models.

There is a need for appropriate private sector service provision structuring which integrates with local procurement frameworks: A one-time payment model has been shown to be effective within the centralized procurement system in most African governments.

A convening force platform on cancer financing will need to be created by trusted partners (WHO and/or PEPFAR) for sub-Saharan African governments. That will allow the private sector to make proposals to alleviate the funding gap, with specific guidelines on how this will be realized within the specific countries. Sub-Saharan African governments and cooperating and implementing partners can further improve alignment by posing directed questions to development finance institutions (e.g., under what conditions might part of the billions of dollars allocated toward infrastructure in sub-Saharan Africa be directed toward cancer?), while development finance institutions can provide more specific guidelines on how funding should be utilized.

Governments should be advised on how to implement taxes on specific industries, with resources mobilized toward cancer care. Examples could include tobacco taxation or a sugar tax.

To galvanize support toward the targets and more effectively advocate for funding, government financing institutions (ministries of finance and the treasury) should be included in these kinds of forums and meetings, emphasizing the human story and the need for a compassionate response.

Partnerships for Finance

Challenges/Barriers

Short-term partnership proposals from the private sector to governments do not build trust and are not very effective. The manufacturers and suppliers of cancer machinery and drugs rarely have a physical presence in sub-Saharan African countries, which increases the mistrust from these governments when it comes to long-term planning.

There is incongruence between governments and coordinating partners (who might lack clarity on specific funding criteria and mechanisms from development finance institutions) and development agencies (which have limited technical expertise in advanced treatments). This hinders contextual and country-specific financing approaches.

Opportunities and/or Solutions

The COVID-19 pandemic brought the reality home for many in terms of the weak and unprepared health systems, especially on noncommunicable diseases and, specifically, cancer. There is an opportunity in sub-Saharan Africa to review progress (however small) to make cancer a core local political goal and, in turn, prioritize investment by both the public and private sectors.

Each country's situation is unique. Given the public-private partnership options being proposed, the basic definition of public-private partnership and private sector engagement needs to be unpacked so that all are clear on what to expect out of the relationships to be pursued or realized.

Private-sector partnerships and capital must be recognized as a potential valuable tool toward cancer funding. But the private sector must prove the value it can provide, in part with evidence-backed investment cases relevant to each country it approaches.

The private sector can work with governments to become more agile in helping health systems to deal with the issues, using COVID-19 as an example. The pandemic has helped demonstrate the need to change plans and how this can benefit the entire ecosystem. There is a clear opportunity for health care companies working in countries with poor cancer services to show a long-term commitment to improving health care systems by building local presence and partnerships.

Expense / Insufficiency of Resources

Challenges/Barriers

Cancer treatment remains too expensive to rely entirely on government budgets. Cancer treatment requires an added layer of technical knowledge other diseases (especially infectious diseases) do not, increasing cost and complexity. However, in the absence of local services, some countries spend a significant portion of their health budgets on sending a handful of patients abroad for treatment. In other cases, the use of intermediary parties increases the cost of services.

The health sector continues to be insufficiently funded, as evidenced by the small number of countries adhering to the Abuja Declaration of 2001 – a political commitment that countries will dedicate 15% of their gross domestic product toward their annual health budgets. Many other health problems have been prioritized (mainly infectious diseases and maternal and child health), leaving few resources left toward cancer treatment.

In addition to the lack of government support, policies set by many medical aid companies in sub-Saharan Africa don't include cancer treatment because it's expensive.

Regular drug shortages because of inadequate planning may also affect cancer treatment schedules and outcomes.

Opportunities and/or Solutions

To tackle the regular shortages of specific drugs required to complete the cervical cancer treatment protocol, strategies should be developed to procure the drugs as a package. This will also provide a clearer estimate of the cost of disease management, making planning and budgetary allocation more efficient. It would also reduce waste, since drugs bought singly are more likely to expire before they are used by a patient.

The discussions should be led by trusted government partners (e.g., cancer access programs), including experts with knowledge of treatment protocols and practices, and encourage regional pooled procurement to lower the overhead costs.

There is an opportunity to explore innovative financing solutions that do not draw on government budgets but generate capital from interested stakeholders. Options include social impact bonds, attracting impact investors who may have an appetite for this type of work, and the use of credit ratings to generate specific capital to resolve challenges. But all these tools must be tailored and their impact clarified.

While cancer services generally have a positive return on investment (ROI)/social ROI, many countries don't generate enough evidence to attract investors. The case for investment in sustainable cancer care delivery goes beyond just equipment. It requires that stakeholders responsible for procurement are aware of the needed indispensable add-ons, such as service agreements and maintenance, and are committed to delivering services over the long term.

Innovative reimbursement modeling that employs an outcomes-based approach, rather than one based on usage, would not only be cost effective, but also demonstrate the business case for innovative financing.

Health Systems' Capacity for Investment

Challenges/Barriers

Weak health systems threaten the potential impact of investments. For example, deficits in the health workforce diminish the effectiveness of funding in other areas, such as the purchase of equipment.

Access to treatment is impacted by poor infrastructure, limited capacity, and unmotivated health care workers. Highly skilled and trained health care workers quickly move to “greener pastures” – even across southern African borders.

Treatment bottlenecks start at pathology and diagnosis and include access to clinical consultation and treatment plans, surgery, radiotherapy, medications, management of side effects, psychosocial support/navigation, and pain relief and palliative care.

Opportunities and/or Solutions

The primary catalyst for sustained success and lasting impact is investment in a capable and committed workforce. A clear opportunity for health care companies to show long-term intent and dedication to improving health care systems is via partnerships, through which they can establish a local presence that demonstrates their commitment. But they should invest in parallel tracks: both in equipment and in training health care workers in highly specialized skills.

Human resources are critical at each step, as are financing models. Both require partnerships across the private sector and government entities.

Dr. Shannon Hader, Assistant Secretary General, United Nations/Deputy Executive Director of Programme, Joint UN Programme on HIV/AIDS (UNAIDS)

“Both HIV and cervical cancer are diseases of inequality, and when they overlap or collide, we see intersecting and enhanced inequalities. Overall, we see unequal access to new technology, insufficient investment in low- and middle-income countries that bring programs to scale, unequal gender rights, and norms that result in women not being the decision-makers in their own health care access. If we really want all women to come in for screening, if we want to eliminate the barriers of fear and stigma, if we truly support health for all – we must create pathways to treatment that include advanced disease. For the first time, the new Global AIDS Strategy and Political Declaration has quantitative targets that specifically include HIV and cervical cancer.”

CONCLUSION AND FORWARD ACTIONS

Closing Remarks

“We need to be humble enough to write the stories the women are telling us. Women have a lot to say about how cervical cancer has affected them, and we need to document those stories. We need to listen to the women, to what their primary needs are and then advocate for those needs to be met. In that listening, find strategic ways to take those messages to a higher level. We have better access now, and any step we can take forward is really 10 steps forward. Let us not compete, let’s share and move one another across the continuum of care in the most sensitive and encouraging way. I always feel that at the end of these meetings, there is a lot of energy and ideas. Let’s put them on the table and demonstrate how they can work for women. I want to encourage everyone that when we come back next year, we can show how much progress we have made in our countries.”

– Dr. Nono Simelela

Assistant Director-General for Strategic Programmatic Priorities: Cervical Cancer Elimination, WHO

Resounding Themes

Three key strategies and solutions emerged as ways to knock down the barriers to advanced cancer treatment in sub-Saharan Africa: crafting policy and financial structures to achieve global goals, developing patient and treatment ecosystems that will improve outcomes, and establishing advocacy and partnerships that meet local needs.

The participants expressed their eagerness to demonstrate their commitment to the goals and see the results as the recommendations are translated into tangible changes in the lives of women in sub-Saharan Africa.

Policy and Finance	Patient and Treatment Ecosystems	Advocacy and Partnership
<p>Political Will remains insufficient to drive meaningful change as evidenced by limited public funding and budgetary allocation for treatment. Achieving the WHO’s 90-70-90 targets will require comprehensive planning, stakeholder coordination, and financing of interventions.</p> <p>Constraining regulatory and procurement frameworks require reforms to enable innovative financing models and private sector investment toward new technology and scaling of treatment programs.</p>	<p>A need for patient-centered, compassionate solutions for poor women to overcome barriers of stigma, societal roles, cultural norms, and unaffordability and consider the need for holistic patient support.</p> <p>Poor turnaround times, ill-equipped facilities, and a lack of patient guidance require system strengthening interventions, and improved patient navigation to provide timely, quality care and improve patient survival rates.</p>	<p>Access to cervical cancer treatment is at the intersection of gender and global health rights. Broadening awareness and access necessitates public education around vaccination and treatment, targeting not only women.</p> <p>The success of partnerships and advocacy efforts driving awareness into cervical cancer screening should be expanded to the entire cancer continuum and leveraged to influence policy.</p>
<p>The need for inclusive, context-specific planning from an ecosystem perspective and addressing system bottlenecks, to be informed by technical expertise and in-country evidence.</p>		

Recommendations

We seek to support the adoption or adaptation of proposed strategies or solutions by policymakers and implementers, program implementers, and others.

We must continue to work collaboratively, across disciplines and with multiple stakeholders, to ensure the 2030 WHO targets remain within reach. Now that we have listened, shared ideas, and documented them, it is time to put recommendations into reality. The health and well-being of women facing cervical cancer deserve our attention and diligent action.

While topic-specific recommendations are well laid out in the preceding text, a summary of some of the cross-cutting recommendations include the following:

Short Term

- The current COVID-19 awareness platforms should be opened up and used by ministries of health and implementing partners in sub-Saharan Africa to get across this important messaging on cervical cancer, not only during cancer awareness months. The cervical cancer problem in sub-Saharan Africa is an epidemic.
 - A documented lack of patient awareness or literacy around cervical cancer suggests additional efforts should be made to improve messaging toward women, particularly by engaging directly with communities.
- WHO – at the 2021 United Nations General Assembly – should require countries to disclose the specific budgetary allocation in their cervical cancer elimination strategy, not just the current blanket noncommunicable disease budgetary allocation.
- Governments should include technical experts in decision-making discussions to allow for better translation of policy to practice and the codification of practice into policy.
- International partners and local civil-society organizations should seek to engage with first ladies, making use of their social capital as ambassadors of cervical cancer treatments to advocate with governments.

Medium Term

- International partners, especially funders, should work with governments in sub-Saharan Africa, inviting them to collaborate, and work transparently and in lockstep with countries' national cancer control units (or the equivalent) to avoid duplications.
- Ministries of health should establish and continue South-to-South collaboration.
- Organizations implementing cervical cancer programs should include patient navigators within their programs to ease the patient journey, and funders should allow for this inclusion within grant guidelines.
- WHO should set up a convening platform by which private companies and development finance institutions can make business cases to ministries of health to finance concerted cancer care.

Long Term

- International partners and advocates should strongly advise ministries of health from sub-Saharan Africa to set up dedicated national cancer control units (NCCU) within the approved establishment that have the full support of the treasury and ministry of finance to ensure a comprehensive in-country cancer control plan is in place.
- Governments should develop country-specific costed and financed policy and guidelines, reflective of the national context. These should be holistic and represent the ecosystem of support required for patients to successfully access treatment.

APPENDIX: GO FURTHER PARTNERSHIP FACT SHEET



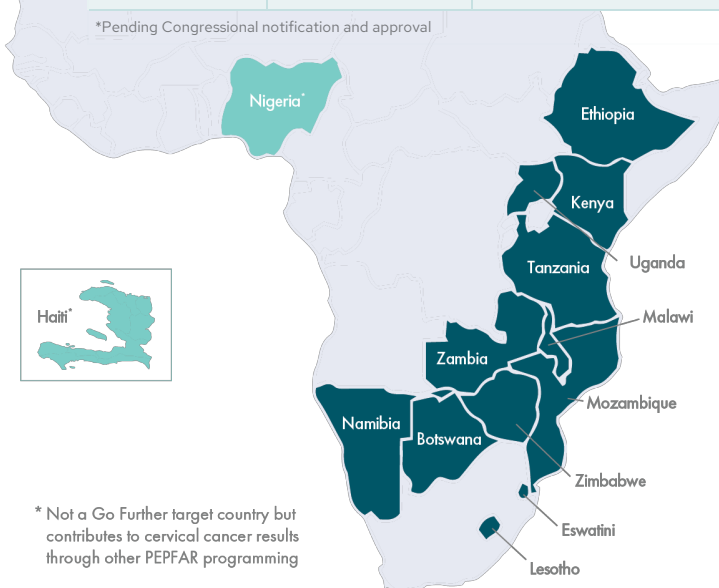
Cervical cancer is the number one cancer killer of women in sub-Saharan Africa, with roughly 110,000 women diagnosed annually; of these women, about 66% will die from the disease. Women living with HIV (WLHIV) are up to six times more likely to develop persistent precancerous lesions and progress to cervical cancer, often with more aggressive forms and higher mortality.

Launched in May 2018 to address this challenge, Go Further is an innovative public-private partnership between the U.S. President's Emergency Plan for AIDS Relief (PEPFAR), the George W. Bush Institute, the Joint United Nations Programme on HIV/AIDS (UNAIDS), Merck, and Roche. The partnership collaborates closely with governments to strategize on ways to provide services for women from prevention through the cancer journey. Go Further began working in eight countries (Botswana, Eswatini, Lesotho, Malawi, Mozambique, Namibia, Zambia, and Zimbabwe), and expanded services to four additional countries (Ethiopia, Kenya, Tanzania, Uganda) in fiscal year (FY) 2021. The objectives are to screen all WLHIV on ART between the ages of 25 and 49 for cervical cancer, and to treat pre-invasive cervical cancer lesions to prevent progression to cervical cancer.

Go Further Program-Wide Highlights

Fiscal Year	Funding Amount	Cervical Cancer Screening Target
FY19	\$30,600,419	463,012
FY20	\$22,994,705	912,749
FY21	\$39,673,711	2,004,598
FY22	\$36,693,109*	2,147,323

*Pending Congressional notification and approval

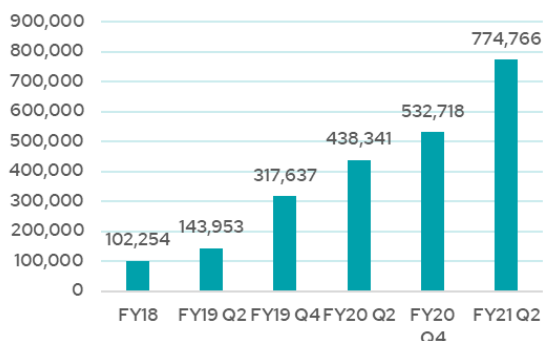


Global Context

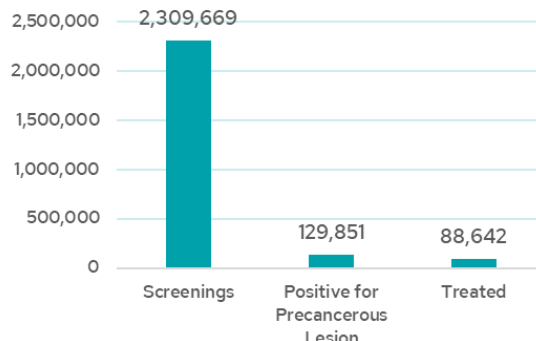
Women Aged 15+ at Risk of Developing Cervical Cancer (HPV Information Centre)	2.784 Billion
Cervical Cancer Incidence (Age-Standardized Rate Per 100,000) (IARC/GLOBOCAN)	13.3
Annual Number of New Cervical Cancer Cases (IARC/GLOBOCAN)	604,127
Annual Number of Cervical Cancer Deaths (IARC/GLOBOCAN)	341,831
Standardized Mortality Rate Per 100,000 (IARC/GLOBOCAN)	7.3
Total Number of Women, All Ages, on ART (PEPFAR FY21 Q2)	11,072,847

APPENDIX: GO FURTHER PARTNERSHIP FACT SHEET, PAGE 2

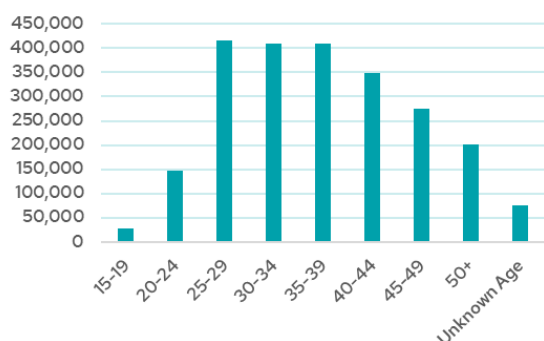
Cervical Cancer Screening Scale Up, FY18-FY21 Q2, All Countries Reporting



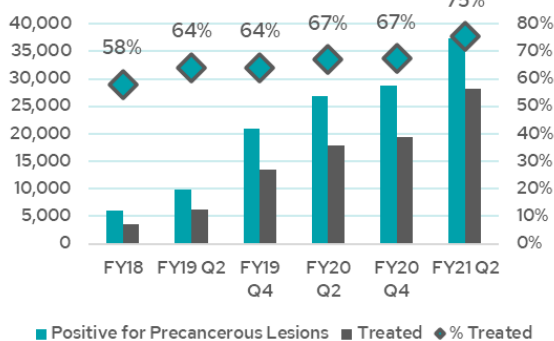
Cervical Cancer Cascade, FY18-FY21 Q2, All Countries Reporting



Screenings by Age, FY18-FY21 Q2, All Countries Reporting



Treatment Rate by Period, All Countries Reporting



RESULTS SUMMARY

- ◆ Since program reporting began in FY18, 2,309,669 cervical cancer screenings have been conducted.
- ◆ Of these, 1,972,888 (85.4%) were reported as first-time screenings, 25,978 (1.1%) were follow-up screens, and 310,803 (13.5%) were re-screens.
- ◆ 88,642 treatments for precancerous lesions have been performed for an overall treatment rate of 68.4%.



Go Further • www.gofurther.org
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