

## ELIMINATING CERVICAL CANCER IN UGANDA ONE VILLAGE AT A TIME





Global Control of HPV Related Diseases and Cancer





Uganda Cancer Institute Research is Our Resource



### SAVING MOTHERS, STRENGTHENING COMMUNITIES: COMBATING CERVICAL CANCER IN RURAL UGANDA

Cervical cancer is almost entirely preventable, yet every year thousands of women die in Uganda from this disease.

Cervical cancer remains the most prevalent form of cancer among Ugandan women due to lack of access to screening and treatment with an overwhelmingly high mortality rate. Its impacts on women, their families, the community and the country as a whole are devastating.

This disease is particularly burdensome in rural and underserved communities, where healthcare facilities are scarce, screening rates remain dangerously low, and many women are diagnosed when it's too late for effective treatment.

Further compounding the challenge, young girls in these communities are unable to receive the HPV vaccine because they aren't in school and are burdened with household responsibilities, particularly if their mothers become ill. These gaps in healthcare access are why approximately 90% of cervical cancer deaths and disease globally, are in low-and-middle-income countries (LMICs) like Uganda.

Since 2007, ASPIRE (Advances in Screening and Prevention in Reproductive Health) has been at the forefront of community-led, community-based reproductive health initiatives in Uganda.

<sup>4</sup> Muttamba W, Tumwebaze R, Mugenyi L, et al. Households experiencing catastrophic costs due to tuberculosis in Uganda: magnitude and cost drivers. BMC Public Health. 2020;20(1):1409. Published 2020 Sep 16. doi:10.1186/s12889-020-09524-5

## A PREVENTABLE TRAGEDY

According to the World Health Organization (WHO), 18 of the 20 countries with the highest burden of cervical cancer are in Africa. Uganda, specifically, has the second-highest incidence rate of cervical cancer in East Africa, with a mortality rate of 66%.

#### **LOW SCREENING RATES**

According to the WHO, fewer than 10% of Ugandan women have ever been screened for cervical cancer.

#### LIMITED HEALTHCARE ACCESS

Women in rural communities may travel over 100 kilometres to access medical care, sacrificing up to 40% of household income in the process.

#### MINIMAL MEDICAL INFRASTRUCTURE

Many rural areas lack trained personnel, and access to screening and treatment options.

#### FEAR, CULTURAL, AND ECONOMIC BARRIERS

Women are often reluctant to seek care due to stigma, misinformation, financial constraints, and fears of domestic violence.

<sup>&</sup>lt;sup>1</sup> Vigneshwaran, E., Goruntla, N., Bommireddy, B.R. et al. Prevalence and predictors of cervical cancer screening among HIV-positive women in rural western Uganda: insights from the health-belief model. BMC Cancer 23, 1216 (2023). https://doi. org/10.1186/s12885-023-11683-8

<sup>&</sup>lt;sup>2</sup> Vigneshwaran, E., Goruntla, N., Bommireddy, B.R. et al. Prevalence and predictors of cervical cancer screening among HIV-positive women in rural western Uganda: insights from the health-belief model. BMC Cancer 23, 1216 (2023). https://doi. org/10.1186/s12885-023-11683-8

<sup>&</sup>lt;sup>3</sup> Musoke D, Boynton P, Butler C, Musoke MB. Health seeking behaviour and challenges in utilising health facilities in Wakiso district, Uganda. Afr Health Sci. 2014;14(4):1046-1055. doi:10.4314/ahs.v14i4.36

## THE CONSEQUENCES REACH FAR BEYOND A WOMAN'S LIFE

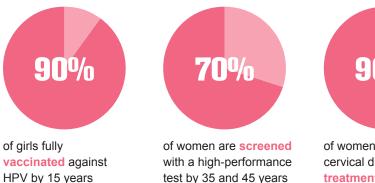
#### When a mother dies of cervical cancer, the entire country suffers:

- Her children will likely need to leave school to be caretakers or go to work.
- The cycle of loss and intergenerational trauma continues.
- Women contribute 75% of Uganda's agricultural workforce, so the family loses significant income.
- · Income loss pushes families deeper into poverty.
- The community loses a vital economic contributor.

Women are the wheels that keep Ugandan families and economies moving. When cervical cancer takes them too soon, everything grinds to a halt. However, there are actionable things that can be done now, to prevent women in Uganda from dying.

## THE GOAL: CERVICAL CANCER ELIMINATION

The WHO has launched an unprecedented global effort to eliminate cervical cancer by the end of the century. The strategy is simple:



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cervical disease receive treatment for precancerous lesions or invasive cancer "When these women are kept from dying, the Nation is kept from dying."

Dr. Carolyn Nakisige, Uganda Cancer Institute

For high-income countries, these goals are within reach. For Uganda, however, achieving the 90-70-90 plan requires an innovative, community-based approach.

Through a joint Ugandan and Canadian initiative designed to overcome geographic, economic, and systemic barriers, **ASPIRE REACH** will deploy a **state-of-the-art vehicle equipped with a cervical cancer screening and treatment unit**. This off-road-ready unit will travel to remote villages, offering **same-day HPV screening for cervical cancer, rapid diagnostics, and immediate treatment** to tens of thousands of women who are otherwise out of reach.

WITH YOUR SUPPORT, ASPIRE REACH CAN HELP PREVENT SUFFERING AND ELIMINATE CERVICAL CANCER

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### THE SOLUTION: AN ALL-TERRAIN SCREENING & TREATMENT VEHICLE

ASPIRE REACH is a state-of-the-art clinic on wheels designed to navigate Uganda's most remote regions, reducing barriers and providing same day screening and treatment to Ugandan women and offer HPV vaccination to their daughters.

With just one clinic vehicle, ASPIRE REACH can:

- Screen at least 20,000 women for cervical cancer over five years through self-collected HPV screening, a method proven to increase participation.
- Access an on-site laboratory with top-of-the-line diagnostic technology to process the HPV tests, delivering results within an hour.
- Provide same-day, on-site treatment to prevent disease progression (like visual inspection with acetic acid and thermocoagulation for precancerous lesions), so women are not lost to follow-up as a result of long-distances and family, community and work obligations.
- Combine cervical cancer screening with HIV screening to address Uganda's high rates of coinfection and facilitate treatment for those who test HIV positive.
- Provide **HPV vaccinations** for girls aged 10-15, reaching thousands of girls who are otherwise missed by school-based programs.
- Train up to 250 Village Health Workers (VHT) to ensure long-term continuity of community-led care.



The ASPIRE REACH clinic vehicle will be engineered for durability and efficiency, **built to handle Uganda's rough terrain and extreme weather**, with reinforced suspension and all-terrain tires. The vehicle will also include a **generator backup system** for operations in areas without electricity and feature **medical-grade interior materials** for easy sterilization and infection control.

This isn't just a mobile screening and treatment clinic—it's a lifeline that brings essential healthcare where it's needed most. This model is sustainable, for integration into the Uganda Cancer Institute at the end of this project. ASPIRE REACH provides a blueprint for cervical cancer elimination in LMICs that can be replicated across Uganda and in underserved communities worldwide.

## **AN END TO CERVICAL CANCER IN UGANDA IS WITHIN REACH**

ASPIRE REACH presents a unique opportunity to offer health care innovation that will impact women, their families, and their communities for generations. BC Women's Health Foundation is raising \$5.1 million to help the ASPIRE REACH team to bring an end to a preventable disease that disproportionately affects Ugandan women.

Your gift will directly fund:

- The build and deployment of the ASPIRE REACH vehicle.
- Screening and treatment for thousands of women.
- Salaries and training for local healthcare providers to execute the program's goals and VHTs.
- HPV vaccinations for young girls to ensure they never develop this preventable disease.

Program Coordinator recruits and trains VHTs in cervical caner screening.

1

VHTs conducts door-to-door sensitization and education and advise women what day the vehicle will be in their community.

3

2

Women and their families attend Community Health Days for self-collection and education. Samples are analyzed in the vehicle while women wait. VHTs deliver results. HPV+ women without advanced cases receive VIA and thermocoagulation in the vehicle. Young girls without HPV vaccincations receive them.

The fight to eliminate cervical cancer is not just about healthcare, **it's about justice**, **dignity and solidarity with Ugandan women**, **and the fundamental right to life**. Your support will save thousands of lives and create a model of hope, equity, and impact that rewrites the future for generations of women and their families.

## WITH YOUR SUPPORT, WE CAN ELIMINATE CERVICAL CANCER IN UGANDA. WILL YOU STAND WITH THE WOMEN OF UGANDA?

## **DONATE NOW**

ANNA POLDEN, DEVELOPMENT MANAGER, GLOBAL HEALTH INITIATIVES ANNA.POLDEN@BCWOMENSFOUNDATION.ORG 604.970.5014 BC WOMEN'S HEALTH FOUNDATION

We acknowledge that we carry out our work on the traditional, ancestral and unceded territory of the Coast Salish peoples – x\*mə8k\*øýem (Musqueam), Skwxwú7mesh (Squamish), Stó:lö and Seİilwəta?/ Selilwitulh (Tsleil-Waututh) Nations. When we refer to "women," we include women in all their diversity inclusive of the LGBTQ2SIA+ community.

\*Consistent with our fiscal sustainability policy, a contribution from all designated donations will be directed to support the work of BCWHF in fulfilling its mandate to ensure women in BC have equitable access to quality healthcare.

# **APPENDIX 1 OF 2**

## THE ASPIRE PROGRAM: TRANSFORMING WOMEN'S HEALTHCARE IN UGANDA

Since 2007, ASPIRE (Advances in Screening and Prevention in Reproductive Health) has been at the forefront of communityled, community-based reproductive health initiatives in Uganda. In a unique collaboration between the Uganda Cancer Institute, the University of British Columbia, the Women's Health Research Institute at BC Women's, and the BC Women's Health "At first, the Ugandan Ministry of Health thought Village Health Teams (VHTs) couldn't accomplish what we proposed with ASPIRE. But the VHTs were extremely effective, and screening uptake increased significantly. We saved lives and changed minds at the Ministry about community-led care."

Dr. Gina Ogilvie, Canadian global and public health physician

Foundation, ASPIRE delivers culturally acceptable self-collected HPV testing to increase cervical cancer screening and treatment rates dramatically in a region with remarkably low screening uptake and disproportionately high rates of cervical cancer.

The ASPIRE program has prevented an estimated 1,000 deaths and created a sustainable model for addressing health inequities in LMICs.

## ASPIRE'S COMPREHENSIVE APPROACH TO CARE IN LOW-INCOME SETTINGS CURRENTLY INCLUDES:

#### **COMMUNITY ENGAGEMENT**

ASPIRE empowers communities by training Village Health Teams to invite women for screening, facilitate selfcollection, and help ensure treatment attendance.

#### **INNOVATIVE SCREENING METHODS**

ASPIRE facilitates screening for cervical cancer via self-collection, empowering women to participate actively in their health care and increasing screening uptake.

#### **INTEGRATED HEALTH SERVICES**

By combining cervical cancer screening with other reproductive health services like testing for HIV, ASPIRE provides comprehensive reproductive health care to women in underserved areas.

#### **TREATMENT PLANS & SUPPORT**

As needed, ASPIRE provides referrals and funding to support women whose cancers are too advanced for community treatment and who need to travel for days to reach the appropriate care centre.

#### **STIGMA-BUSTING EDUCATION FOR MEN**

In addition to educating women and girls, ASPIRE actively engages men in educational sessions about the importance of screening and treatment for cervical cancer to foster a supportive community and home

## HOWEVER, TO TRULY ELIMINATE CERVICAL CANCER, WE MUST REACH FURTHER.









# **APPENDIX 2 OF 2**

## **ABOUT THE ASPIRE REACH TEAM**

The ASPIRE REACH project is spearheaded by a dedicated team of experts from the University of British Columbia (UBC) and the Uganda Cancer Institute. It builds upon a longstanding partnership committed to improving global health.

This partnership has led to numerous successful initiatives to improve health outcomes in Uganda and is a testament to the collaborative spirit driving ASPIRE REACH.

Collectively, this team brings extensive experience, expertise, and a proven track record of success to the fight against cervical cancer, ensuring that contributions support work that leaves a legacy of lasting impact.



#### DR. GINA OGILVIE, MD, MSC, FCFP, DRPH

Dr. Ogilvie is a global and public health physician and clinical researcher at the Women's Health Research Institute and BC Children's Hospital. Dr. Ogilvie holds a Tier 1 Canada Research Chair in Global Control of HPV-Related Diseases and Cancer Prevention, is a professor at UBC's School of Population and Public Health, and provides program oversight for ASPIRE. Dr. Ogilvie is a leading contributor to cervical cancer prevention within Canada and globally. She also advises and consults national and international institutions, including the Canadian Partnership Against Cancer and the World Health Organization. Dr. Ogilvie's research has been instrumental in shaping health policies at home and abroad.

#### **DR. CAROLYN NAKISIGE, MBCHB**

Dr. Carolyn Nakisige is an Obstetrician and Gynecologist heading the Gynecologic Oncology department in Uganda Cancer Institute. She pioneered a number of screening clinics in Uganda, and worked on several researches in HPV and cervical cancer prevention. She has trained nurses, midwives and doctors in VIA and cryotherapy, HPV testing and thermocoagulation as well as Colposcopy and LEEP; both nationally and internationally.





### DR. JACKSON OREM, MBCHB, MMED, PHD

Dr. Orem is an oncologist and serves as the Executive Director of the Uganda Cancer Institute, where he led the creation of East Africa's Centre of Excellence in Oncology at UCI. He is also leading the development of several international collaborations for infrastructure and human resource capacity development with renowned institutions, including the Fred Hutchinson Cancer Research Centre in Washington, the University of Cambridge, and the National Cancer Centre of South Korea. A key figure in cancer research and treatment in Uganda, his leadership has been instrumental in enhancing the institute's capacity to address the country's cancer burden. In rural Uganda, Dr. Orem and ASPIRE are working to create a scalable template for community-based health activities. Dr. Orem is also ASPIRE's liaison to Uganda's Ministry of Health.

#### LAURIE SMITH, MPH, RN(C), BN

Laurie is the Research Program Manager at BC Cancer Agency and the Women's Health Research Institute, overseeing all projects related to the elimination of HPV related diseases and cancer. She has over 15 years of experience with HPV-related diseases, particularly in the secondary prevention of cervical cancer. Her research focus is on HPV-based cervix screening and HPV related communication and counselling. She is a member of various regional and national elimination of cervical cancer and HPV working groups. She is also a BC College of Nurses and Midwives certified practice nurse for STI and contraception management.





#### **CANDICE RUCK, MSC**

Candice is the coordinator for the ASPIRE project based in Uganda and Rwanda. She has an MSc. in Experimental Medicine from the University of British Columbia, where her work focused on the development of the infant immune system, particularly in the context of in-utero HIV exposure. She has also researched public health policy in response to the COVID-19 pandemic and the impact of health systems on the pandemic response, focusing on Canada, the Asia-Pacific region, and several LMICs in Asia and Africa. Her research interests include global health, infectious diseases, and maternal and infant health.

#### **PRISCILLA NAGUTI, MPH**

Priscilla is the local project coordinator for the ASPIRE research program in Uganda. She is a registered nurse and has an MPH with a specialty in epidemiology and biostatistics. She has extensive experience in women's health issues and her work with the Uganda Cancer Institute focuses on increasing access to cervical cancer screening and treatment.

