AN INEQUITABLE KILLER
Almost 90% of cervical cancer cases occur in low- and middle-income countries. In sub-Saharan Africa, it is the leading type of cancer among women. Cervical cancer screening can prevent up to 80% of cases, but most women in the region, particularly those in high HIV-burden countries, are not regularly screened.

CERVICAL CANCER AND HIV
The virus that causes cervical cancer, human papilloma virus, increases women’s vulnerability to HIV transmission.

Cervical cancer is an AIDS-defining illness.

WHO recommends that all HIV-positive women be screened annually.

ZAMBIA SPOTLIGHT
• Cervical cancer is the most common and deadly cancer among women in Zambia.
• Rates of cervical cancer are more than twice as high in Zambia compared to the global average. This translates to 2,330 new cervical cancer cases and 1,380 deaths from the disease in Zambia each year.
• Only 3.4% of Zambian women undergo regular cervical screening, despite WHO’s recommendation that women, other than those who are HIV positive, get screened every 3-5 years.

EVALUATING A LOW-COST SOLUTION IN ZAMBIA
Two enhanced models for increasing women’s uptake of cervical cancer screening were compared against the standard of care.1

Model 1
HEALTH-NEEDS ASSESSMENT AND REFERRAL
Providers used a questionnaire to actively engage women, assess their health needs, and develop customized referrals.

FOLLOW-UP PHONE CALL
If a referred woman did not get screened after one week, a provider called or visited the home to encourage uptake.

OFFER OF AN ESCORT
Counselors offered to escort the woman to her cervical cancer screening appointment.

Model 2
HEALTH-NEEDS ASSESSMENT AND REFERRAL
Providers used a questionnaire to actively engage women, assess their health needs, and develop customized referrals.

FOLLOW-UP PHONE CALL
If a referred woman did not get screened after one week, a provider called or visited the home to encourage uptake.

Standard of care: Routine appointment with referrals offered at the provider’s discretion.

1Consenting women coming to participating health facilities for family planning or HIV counseling and testing were randomized to either of the two enhanced models or to the standard of care model.
CERVICAL CANCER SCREENING CAN EASILY BE INCREASED
Women seen by providers in the two enhanced service delivery models were:

- 5x as likely to be screened as women receiving the standard of care at 6 weeks. (23% vs. 4%; p<0.0001)
- 2x as likely to be screened as women receiving the standard of care at 6 months. (23% vs. 10%; p<0.0001)

Uptake was highest among poorer women.

FROM EVIDENCE TO ACTION
Improving linkages between cervical cancer screening and other services accessed by women, such as family planning and HIV counseling and testing, is feasible and cost-effective.

Scaling up an enhanced client counseling and referral model in sexual and reproductive health services should be a priority for Zambia and other countries, especially those with high HIV prevalence. This could result in more women being screened for cervical cancer, leading to earlier identification and preventive treatment of cervical abnormalities and a reduction in cervical cancer death rates.

BOTH CERVICAL CANCER SCREENING MODELS ARE HIGHLY COST-EFFECTIVE

Costs per DALY averted, 2015

<table>
<thead>
<tr>
<th></th>
<th>Model 1</th>
<th>Model 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>US$</td>
<td>$607</td>
<td>$106</td>
</tr>
</tbody>
</table>

WHO considers a health intervention as cost-effective if its costs per DALY [disability-adjusted life years] averted is less than three times a country’s GDP per capita ($5,535 for Zambia in 2015).

The implementation research project, *Randomized Evaluation of Family Planning and HIV Service Linkage and Integration Models for Implementation at Scale in Zambia* (AID-OAA-A-12-00026), was funded by the United States Agency for International Development (USAID) under the U.S. President’s Emergency Plan for AIDS Relief (PEPFAR). This assistance is from the American people. The views expressed in this publication do not necessarily reflect the views of the United States government. The research was carried out by Ministry of Health-Zambia, PSI, Society for Family Health, and Population Council.