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Monitoring, Evaluation, and Reporting (MER) Guidance (v.2.7): CERVICAL CANCER

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Training Outline

Section 1: Overview of the Technical Area

Section 2: Indicator Changes in MER 2.7

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Section 1: Overview of Cervical Cancer

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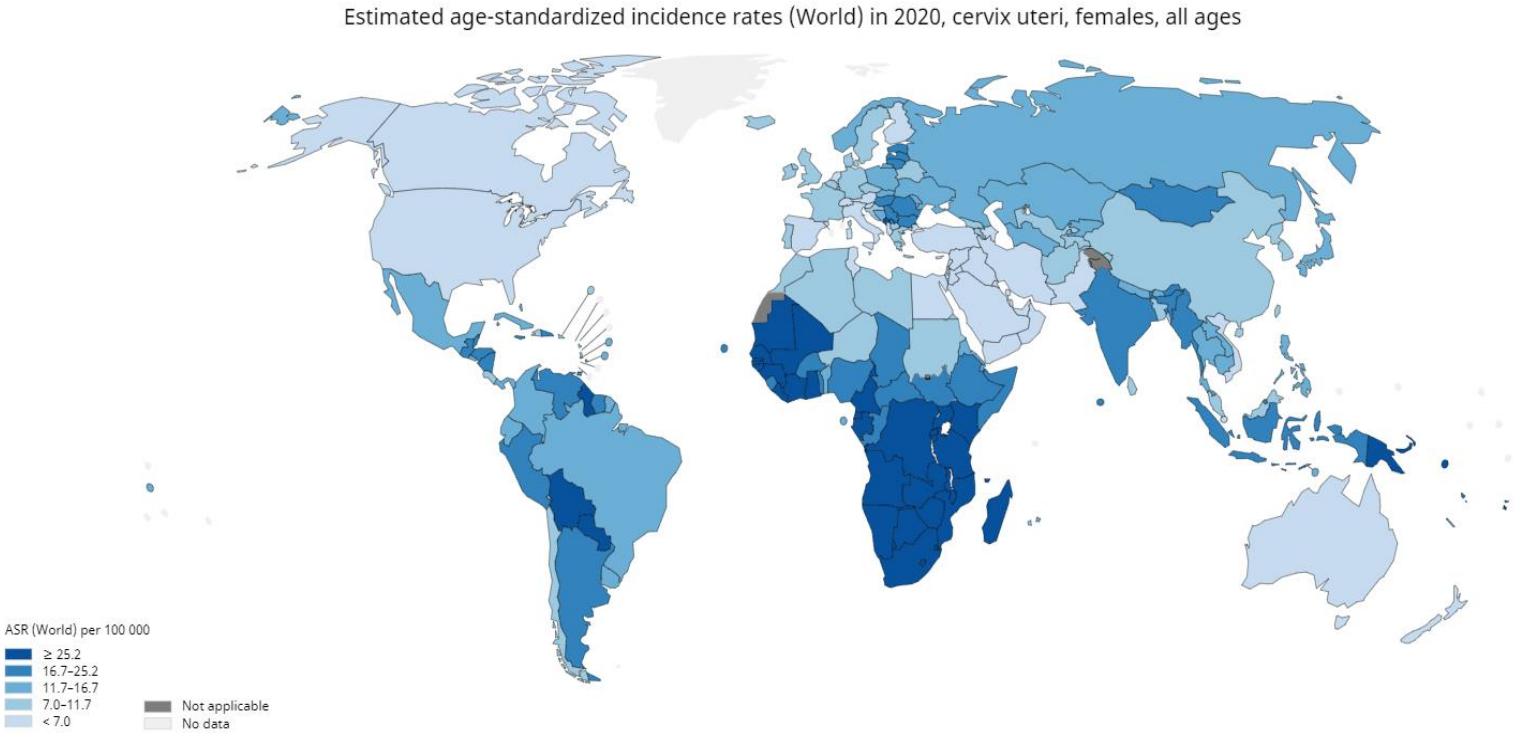
World Prevalence of Cervical Cancer



- 342,000 deaths/year from cervical cancer, 90% in LMIC
- Cervical cancer is the number one cancer killer of women in Sub-Saharan Africa (SSA) Roughly 70,000 women in SSA are diagnosed with cervical cancer in 2020 and of these about 67% died from the disease.
- Countries with the highest HIV prevalence in women have the highest incidence of cervical cancer.
- Women with HIV are 6 times more likely to develop cervical cancer

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Global Cancer Observatory: https://gco.iarc.fr

Overview of Technical Area

- Cervical cancer screening for WLHIV should be integrated into routine HIV treatment services.
- Screening for cervical cancer should begin at high volume sites and be scaled to all women receiving ART in PEPFAR-ART sites either on-site or through referral to hub sites within the region.
- Screening may occur in the ART clinic or in affiliated clinics such as women's health within the same site if already established.
- Cervical Cancer screening modalities in PEPFAR Programs include visual inspection with acetic acid (VIA) and HPV DNA testing. Identified precancerous lesions can be treated with cryotherapy, thermal ablation and loop electrosurgical excision procedure (LEEP).
- Women with suspected invasive cervical cancer are referred to treatment referral sites within the same facility or to established regional cancer treatment facilities with the OU.

Go Further - Ending AIDS and Cervical Cancer

- Launched in May 2018, Go Further is an innovative public-private partnership between PEPFAR, the George W. Bush Institute, UNAIDS, Merck, and Roche. Go Further is committed to creating a healthier future for women. The partnership aims to reduce new cervical cancer cases by 95% among women living with HIV in 12 African countries (Botswana, Eswatini, Ethiopia, Kenya, Lesotho, Malawi, Mozambique, Namibia, Tanzania, Uganda, Zambia, and Zimbabwe).
- PEPFAR has invested more than $168M via Go Further since 2018
- PEPFAR's investment builds on the earlier successes of Pink Ribbon Red Ribbon using new research, new modeling, and additional scientific evidence.
- By refocusing resources and advocacy efforts to where the HIV prevalence rate in women is over 5 percent and cervical cancer mortality among women is the highest, this partnership accelerates our lifesaving impact.

PEPFAR U.S. President's Emergency Plan for AIDS Relief · MERCK INVENTING FOR LIFE · GEORGE W. BUSH INSTITUTE · Roche · UNAIDS

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Summary of Indicators

Program Area Group	Indicator	Indicator Name	Reporting Frequency	Reporting Level
Testing	**CXCA_SCRN**	Number of WLHIV women on ART screened for cervical cancer	Semi-Annual	Facility
Treatment	**CXCA_TX**	Percentage of cervical cancer screen-positive women who are living with HIV and on ART eligible for cryotherapy, thermocoagulation or LEEP who received cryotherapy, thermocoagulation or LEEP	Semi-Annual	Facility

Section 2: Indicator Changes in MER 2.7

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Indicator Changes in MER 2.7

Change	Programmatic Rationale
CXCA_SCRN: Added minor clarifying guidance disaggregate definitions for CXCA_SCRN_POS	Referral to WHO clinical guidance for further resources on global screening and treatment standards.
CXCA_SCRN: Updated guiding narrative questions	Questions were added: to capture quality improvement activities, and to capture HPV testing and treatment clinical care.
CXCA_TX: No changes	N/A

Section 3: Overview of Indicators

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CXCA_SCRN

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Indicator Definition: CXCA_SCRN

Indicator Definition: Number of HIV-positive women (women living with HIV) on ART screened for cervical cancer

Numerator: Number of HIV-positive women (women living with HIV) on ART screened for cervical cancer

Denominator: N/A

Numerator Description:
The numerator captures the number of individual HIV-positive women on ART who received a screening test for cervical cancer.

Numerator Disaggregates: CXCN_SCRN

Disaggregate Groups	Disaggregates
Screening Visit Type and Result by Age [Required]	• 1st time screened (Negative, Positive, Suspected Cancer) by: 15-19, 20-24, 25-29, 30-34, 35-39, 40-44, 45-49, 50+, Unknown Age • Rescreened after previous negative (Negative, Positive, Suspected Cancer) by: 15-19, 20-24, 25-29, 30-34, 35-39, 40-44, 45-49, 50+, Unknown Age • Post-treatment follow-up (Negative, Positive, Suspected Cancer) by: 15-19, 20-24, 25-29, 30-34, 35-39, 40-44, 45-49, 50+, Unknown Age

Definitions of Disaggregates: CXCA_SCRN

Result:

- **Negative**
  - Indicates that neither a lesion, nor any indication of invasive cervical cancer were visualized during the VIA test, including a negative VIA after a positive HPV test.
- **Positive (CXCA_SCRN_POS)**
  - Indicates the visualized presence of aceto-white lesion on the cervix following the application of acetic acid.
  - In practice, women with a positive result are further differentiated into ‘eligible for cryotherapy’ and ‘ineligible for cryotherapy’, based on the size and location of the lesion.
  - Women with fulminating masses or other indication of suspected cervical cancer are not counted under this disaggregate.
- **Suspected Cancer**
  - Indicates the visualized presence of a fulminating mass, or other clinical indicator suspicious for invasive cervical cancer.

Note: Although not captured in MER reporting, custom indicators may be used to track screening outcomes by testing modality.

Definitions of Disaggregates: CXCA_SCRN

- In practice, women with a VIA screening (or triage) test result of “positive” or “suspected cancer” are both considered screen-positive (or triage-positive); however, for the purposes of monitoring, screen-positive results are separated into precancerous lesions (“positive” disaggregate) and suspected cancer (“suspected cancer” disaggregate) because the care pathways for each are different.
- Precancerous lesions may be treated immediately with outpatient procedures, whereas suspected cancer requires further evaluation (colposcopy, biopsy, diagnosis) before treatment options can be considered.
- Clinical definitions can be found in WHO guideline for screening and treatment of cervical pre-cancer lesions for cervical cancer prevention, second edition. Geneva: World Health Organization; 2021.

Definitions of Disaggregates: CXCA_SCRN

Screening Visit Type

- **1st Time Screening**
  - This disaggregate allows the monitoring of screening service provision (and positivity rate) in the screening-naïve HIV-positive population – only women being screened for the first time in their lifetime should be counted under this disaggregate.

Definitions of Disaggregates: CXCA_SCRN

Screening Visit Type: Continued

- **Rescreening after previous negative result**
  - This disaggregate allows the monitoring of screening service provision (and positivity rate) in the population of HIV-positive women who have received at least one cervical cancer screening test in their lifetime, and who received a negative result on their most recent screening test.
  - WHO recommends that HIV-positive women or women of unknown HIV status who receive a negative cervical cancer screening test result be rescreened every 3-5 years.
  - As a program matures, countries should consider adding an additional performance indicator which measures whether women that should return for routine rescreening in a given time period are returning in that time period (e.g., number of rescreened women in a given time period, over the number of women who were expected to be rescreened in the same time period).

Definitions of Disaggregates: CXCA_SCRN

Screening Visit Type: Continued

- **Post-treatment follow-up screening**
  - This disaggregate allows the monitoring of screening service provision (and positivity rate) in the population of HIV-positive women (women living with HIV) who have received at least one cervical cancer screening test in their lifetime, and who received precancerous lesion treatment due to a positive screening result on their last screening test.
  - Some national guidelines require post-treatment follow-up screening at intervals that differ from the PEPFAR screening algorithm – programs should use additional indicators to monitor the additional follow-up time points, and this should be noted in the narrative.

How to Use: CXCA_SCRN

- This indicator is vital for estimating the demand for screening services, forecasting and planning for the resources required to meet that demand, and understanding the resulting treatment needs. Disaggregation enhances sensitivity of this indicator to help identify the need for further outreach, as well as trigger further situational investigation at lower levels of the health system

- CXCA_SCRN and CXCA_TX should be analyzed together at the district or sub-regional level that includes sites where both screening and treatment would occur, in order to monitor the percentage of positive women who receive treatment while accounting for patient referrals between facilities.

- For VIA, the benchmark of 5%-25% screen-positivity for women (aged 30-60) screened for the first time should be used when monitoring performance. (WHO, 2013; ACCP, 2004)

How to Collect: CXCA_SCRN

- The primary data sources for this indicator are registers or logbooks in use at the point of cervical cancer screening service delivery at PEPFAR supported ART sites.
- Client and facility level data collection tools should include the data elements required for disaggregation.
- Data for the numerator should be generated by counting the total number of HIV-positive women (women living with HIV) on ART who received a cervical cancer screening test.

How to Collect: CXCA_SCRN (cont.)

For the purposes of this indicator, “screened” is defined as receiving the tests necessary to determine the need for treatment of precancerous lesions – or referral for suspected invasive cervical cancer.

- For programs using a VIA based screen-and-treat strategy, the number of women receiving a VIA result should be counted here.
- For programs using a screen-triage-treat strategy (e.g., HPV test with VIA triage, with treatment only if the woman is VIA positive), the following should be counted:
  - The number of women who received a negative result on the initial screening test(e.g., HPV test)
  - The number of women who received BOTH a positive result on the initial screening test (e.g., HPV test) AND either a positive (or suspected cancer) or negative result on the triage test (e.g., VIA) should be counted here.

How to Collect: CXCA_SCRN (cont.)

- Only completed screenings should be counted under this indicator – screening tests that were not completed due to cervicitis or who had a positive HPV screen with no follow up VIA should not be counted and should be reported in the narratives.
- Screening visits where cancer is suspected based on initial speculum examination, prior to the application of acetic acid, should be counted as “completed screenings”. This is because the defined purpose of the screening was fulfilled (i.e., to identify individuals with increased probability of having either the disease itself or a precursor of the disease).

How to Review for Data Quality: CXCA_SCRN

How to Review for Data Quality:

- The numerator for this indicator should not be larger than TX_CURR among women 15+.

How to Calculate Annual Total:

- Sum results across reporting periods for the numerator.

Guiding Narrative Questions: CXCA_SCRN

1. Are there any barriers you face encouraging women living with HIV on ART to get screened for cervical cancer and, if so, what would be helpful to overcome these barriers?

2. Please provide the context for how real-time (or near real-time) imaging technologies are in use at your sites. For instance, do you have the option to send images to a central location for review? If so, do they provide feedback while the client is still at your site or does the delay in processing necessitate a return visit for the client?

3. Please report any quality improvement activities that are ongoing for VIA, particularly when the positivity rates are below 5% or above 25%.

4. Please report whether your facility uses a screen and treat approach or a screen, triage, and treat approach; clinician or self-collection of HPV tests, including the number HPV tests performed; and any challenges you are experiencing with the implementation and scale up of HPV testing.

CXCA_TX

Indicator Definition: CXCA_TX

Indicator Definition: Percentage of cervical cancer screen-positive women who are living with HIV and on ART eligible for cryotherapy, thermocoagulation or LEEP who received cryotherapy, thermocoagulation or LEEP

Numerator: Number of women with a positive VIA screening test who are HIV-positive and on ART eligible for cryotherapy, thermocoagulation or LEEP who received cryotherapy, thermocoagulation or LEEP

Denominator: Number of women living with HIV on ART at PEPFAR supported sites who are eligible for cryotherapy, thermocoagulation or LEEP, in other words CXCA_SCRN_POS.

Numerator Description:	**Denominator Description:**
The numerator captures the number of individual women living with HIV on ART who required treatment for precancerous cervical lesions, who received that treatment.	See CXCA_SCRN_POS.

Numerator Disaggregates: CXCA_TX

Disaggregate Groups	Disaggregates
Screening Visit Type and Treatment Type by Age [Required]	• 1st time screened, Cryotherapy by: 15-19, 20-24, 25-29, 30-34, 35-39, 40-44, 45-49, 50-54, 55-59, 60-64, 65+, Unknown Age • 1st time screened: Thermocoagulation by: 15-19, 20-24, 25-29, 30-34, 35-39, 40-44, 45-49, 50-54, 55-59, 60-64, 65+, Unknown Age • 1st time screened, LEEP by: 15-19, 20-24, 25-29, 30-34, 35-39, 40-44, 45-49, 50-54, 55-59, 60-64, 65+, Unknown Age • Rescreened after previous negative, Cryotherapy, thermocoagulation or LEEP) by: 15-19, 20-24, 25-29, 30-34, 35-39, 40-44, 45-49, 50-54, 55-59, 60-64, 65+, Unknown Age • Rescreened after previous negative, Thermocoagulation by: 15-19, 20-24, 25-29, 30-34, 35-39, 40-44, 45-49, 50-54, 55-59, 60-64, 65+, Unknown Age • Rescreened after previous negative, LEEP by: 15-19, 20-24, 25-29, 30-34, 35-39, 40-44, 45-49, 50-54, 55-59, 60-64, 65+, Unknown Age • Post-treatment follow-up, Cryotherapy by: 15-19, 20-24, 25-29, 30-34, 35-39, 40-44, 45-49, 50-54, 55-59, 60-64, 65+, Unknown Age • Post-treatment follow-up, Thermocoagulation by: 15-19, 20-24, 25-29, 30-34, 35-39, 40-44, 45-49, 50-54, 55-59, 60-64, 65+, Unknown Age • Post-treatment follow-up, LEEP by: 15-19, 20-24, 25-29, 30-34, 35-39, 40-44, 45-49, 50-54, 55-59, 60-64, 65+, Unknown Age

Denominator Disaggregates: CXCA_TX

Disaggregate Groups	Disaggregates
See CXCA_SCRN_POS.	See CXCA_SCRN_POS.

Definitions of Disaggregates: CXCA_TX

Treatment Type

- **Cryotherapy**
  - Outpatient ablative treatment option for small precancerous cervical lesions.
  - By applying a highly cooled metal disc (cryoprobe) to the cervix and freezing the abnormal areas (along with normal areas) covered by it, cryotherapy eliminates precancerous areas on the cervix by freezing.
- **Thermocoagulation**
  - Outpatient ablative treatment option for small precancerous cervical lesions.
  - It uses electricity to generate temperatures of 100–120 °C for ablation of cervical lesions and can be used for all stages of cervical cancer.
- **LEEP**
  - The primary outpatient treatment for large precancerous cervical lesions.
  - The removal of abnormal areas from the cervix and the entire transformation zone, using a loop made of thin wire powered by an electrosurgical unit; the loop tool cuts and coagulates at the same time; this is followed by use of a ball electrode to complete the coagulation.

Definitions of Disaggregates: CXCA_TX (cont.)

Screening Visit Type (cont.)

- **1st Time screening**
  - This disaggregate allows the monitoring of screening service provision (and positivity rate) in the screening-naïve HIV-positive population – only women being screened for the first time in their lifetime should be counted under this disaggregate.
- **Rescreening after previous negative result**
  - This disaggregate allows the monitoring of screening service provision (and positivity rate) in the population of HIV-positive women who have received at least one cervical cancer screening test in their lifetime, and who received a negative result on their most recent screening test.
  - WHO recommends that HIV-positive women or women of unknown HIV status who receive a negative cervical cancer screening test result be rescreened every 3-5 years. *(WHO guideline for screening and treatment of cervical pre-cancer lesions for cervical cancer prevention, second edition. Geneva: World Health Organization; 2021.)*
  - As a program matures, countries should consider adding an additional performance indicator which measures whether women that should return for routine rescreening in a given time period are returning in that time period.

Definitions of Disaggregates: CXCA_TX (cont.)

Continued: Screening Visit Type

- **Post-treatment follow-up screening**
  - This disaggregate allows the monitoring of screening service provision (and positivity rate) in the population of HIV-positive women who have received at least one cervical cancer screening test in their lifetime, and who received precancerous lesion treatment due to a positive screening result on their last screening test.
  - Some national guidelines require post-treatment follow-up screening at intervals that differ from the PEPFAR screening algorithm – programs should use additional indicators to monitor the additional follow-up time points, and this should be noted in the narrative.

How to Use: CXCA_TX

- It is vital that all women living with HIV on ART requiring treatment for precancerous lesions receive the treatment for which they are eligible. The purpose of this indicator is to monitor whether women requiring (and eligible for) treatment for precancerous lesions received treatment.

- CXCA_SCRN and CXCA_TX should be analyzed together at the district or subregional level that includes sites where both screening and treatment would occur, in order to monitor the percentage of positive women who receive treatment while accounting for patient referrals between facilities.

- The globally accepted benchmark of at least 90% eligible for treatment of precancerous lesions receiving treatment should be used when monitoring performance (WHO, 2021).

How to Collect: CXCA_TX

- The primary data sources for this indicator are registers or logbooks in use at the point of precancerous lesion treatment service delivery. Client and facility level data collection tools should include the data elements required for disaggregation.

- Data for the numerator should be generated by counting the total number of HIV-positive women on ART who received precancerous lesion treatment (cryotherapy, thermocoagulation or LEEP or other) who were eligible for that treatment.

- Challenges may arise in counting when women are referred for LEEP, but who are found eligible for cryotherapy (or thermocoagulation) upon presenting at the LEEP service delivery point. It is vital that facility level data collection and program monitoring tools capture the data elements necessary to identify this key performance issue, which can lead to data quality issues for this indicator.

How to Review for Data Quality: CXCA_TX

How to Review for Data Quality:

- The numerator for this indicator should not be larger than CXCA_SCRN and should be equal to 100% or less of the CXCA_SCRN_POS disaggregate (not including suspected cancer).

How to Calculate Annual Total:

- Sum results across both reporting periods for the numerator.

Guiding Narrative Questions: CXCA_TX

1. Please describe challenges with the provision of same day treatment and/or with the return of women who postpone precancerous lesion treatment.

2. Please provide a summary of the outcomes of all women with suspected invasive cervical cancer. How many were seen at the referral site, how many were found to have invasive cancer? Of those with invasive cancer, how were they treated? Have there been any deaths from cervical cancer among women on ART? What are the barriers to diagnosis and treatment?

Section 4: Data Use

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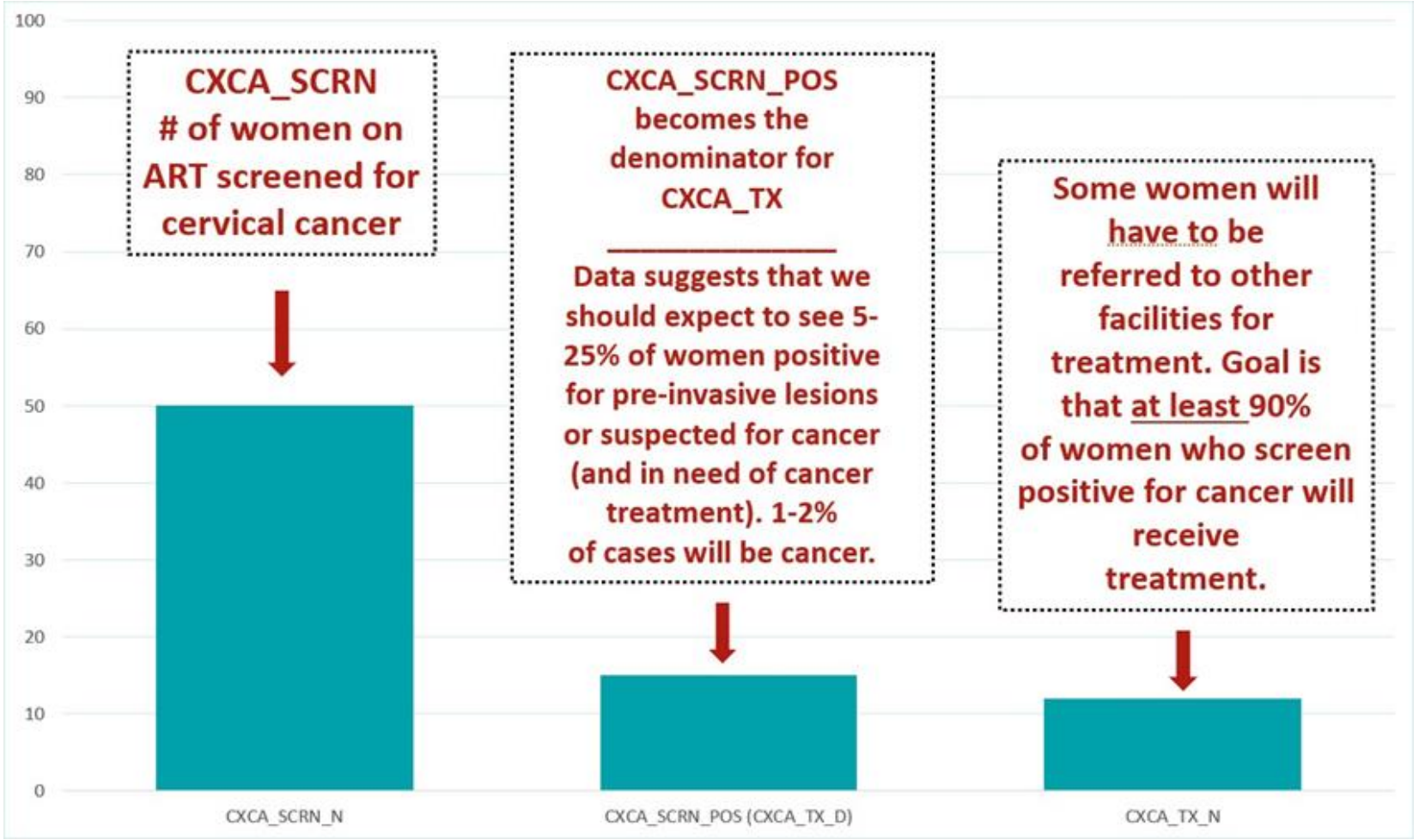
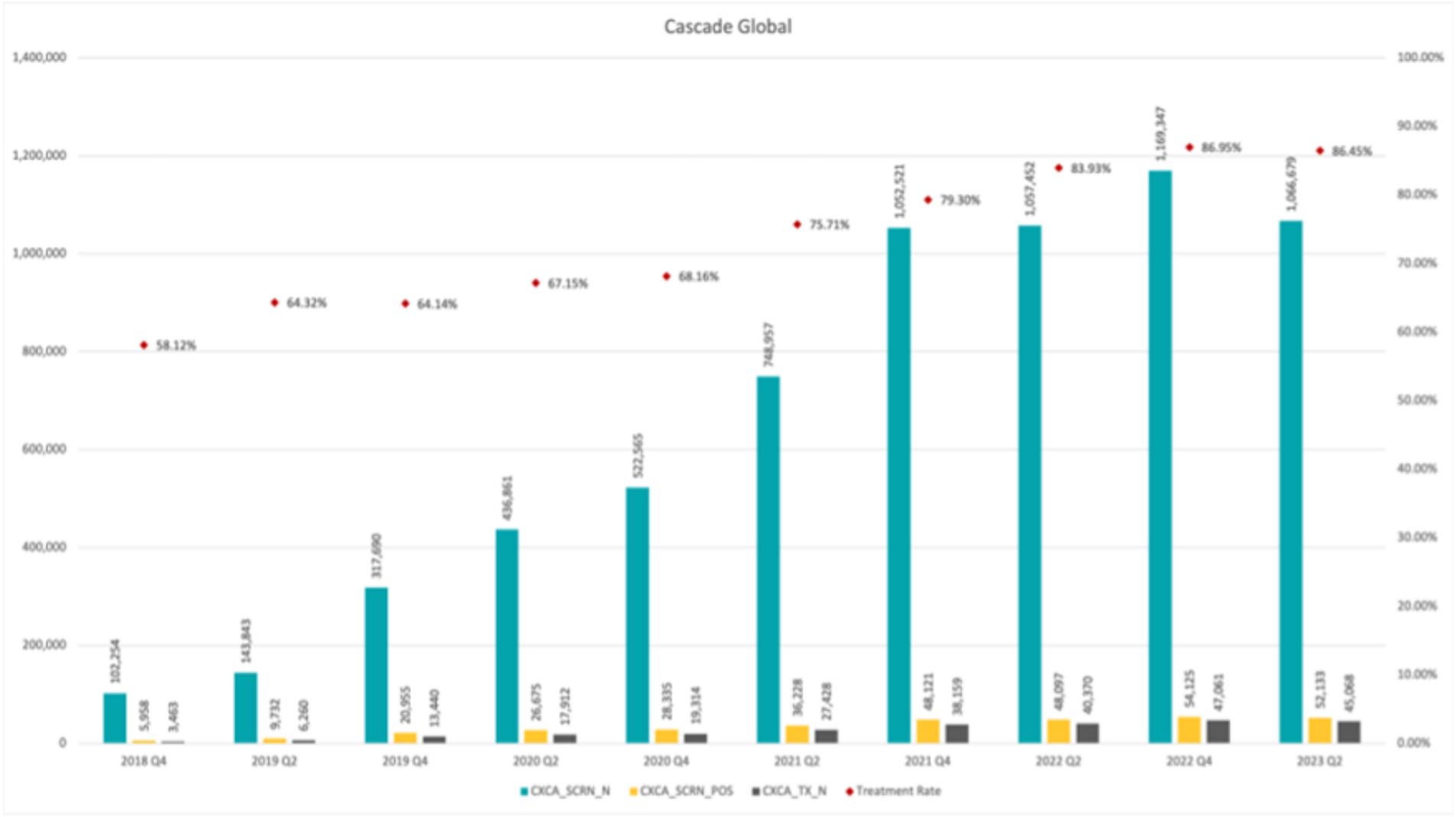
Cervical Cancer Cascade



Cervical Cancer Screening to Treatment Analysis



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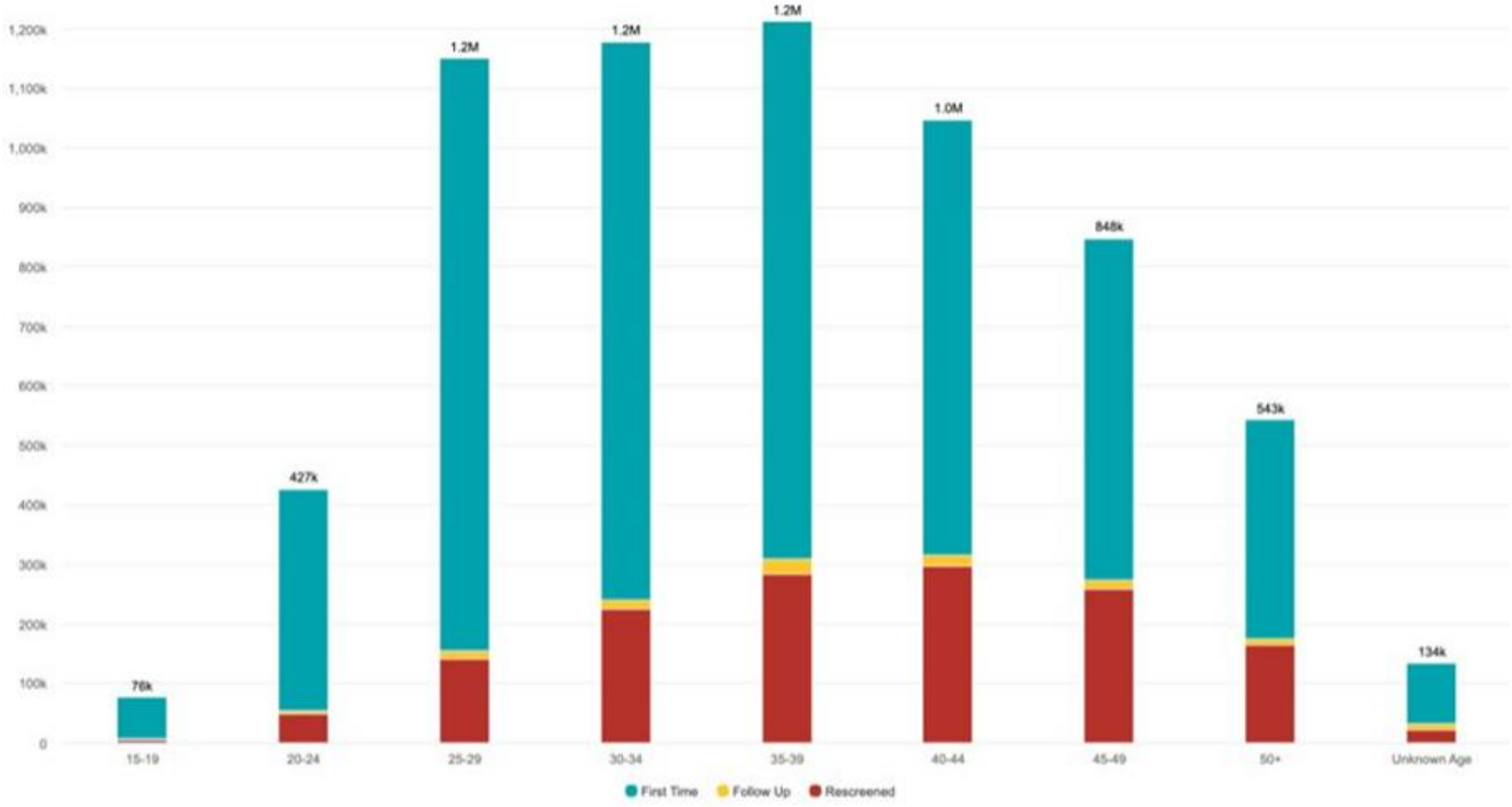
Screening Type by Fine Age (FY18 – FY22 Q2)



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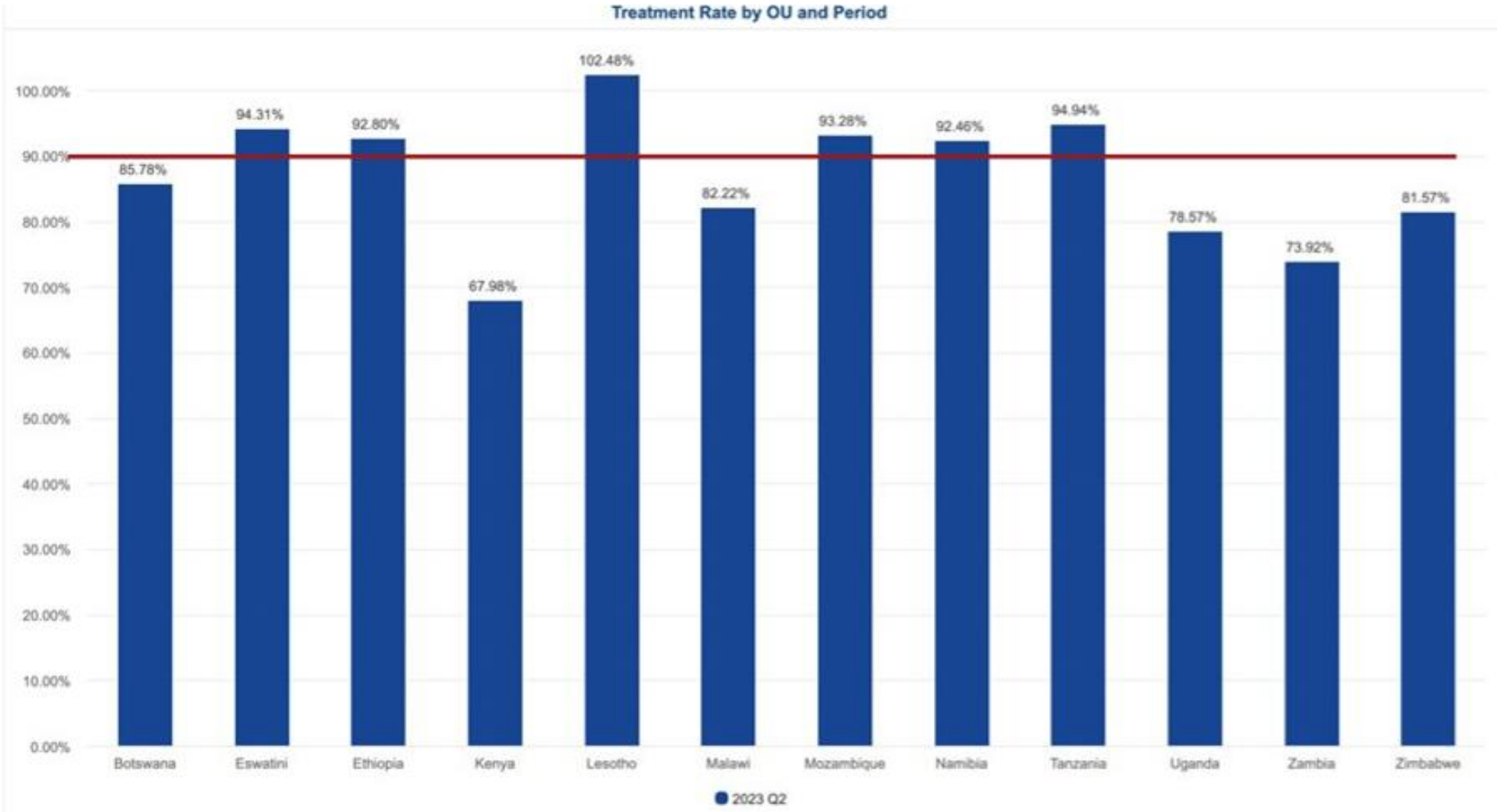
Cervical Cancer Rate vs. WHO Global Targets (FY23 Q2)



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Section 5: Additional Resources and Acknowledgements

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Additional Resources and Acknowledgements

Additional Resources:

- PEPFAR Partnership to Help End AIDS and Cervical Cancer in Africa Update: https://www.state.gov/partnership-to-end-aids-and-cervical-cancer/
- Go Further
- 2021 WHO guidelines for screening and treatment of cervical pre-cancer lesions for cervical cancer prevention: https://www.who.int/publications/i/item/9789240030824
- WHO Improving Data for Decision-Making: A Toolkit for Cervical Cancer Prevention and Control Programmes: https://apps.who.int/iris/handle/10665/279420

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Thank you!

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