ISO 9001:2015
Certified

CERVICAL CANCER STRATEGIC OVERVIEW
CERVICAL CANCER
SCREEN & TREAT PROGRAM

CERVICAL CANCER SCREEN & TREAT COLSCPOSCOPY TRAINING

Outline

- Cancer: Global and Kenyan Burden
- Cervical Cancer: Global and Kenyan Burden
- Policy Framework – Guideline Recommendations
- Current Performance/Trends
- Cervical Cancer Program Inputs & Colposcopy Distribution
- Key Challenges
- Points to Remember

Introduction to Cervical Cancer

ISO 9001:2015
Certified

- **Cervical cancer** arises from the cervix: anatomically not visible to the woman.
- Caused by Human Papilloma Virus (HPV) infection, sexually transmitted
- HPV has many types: high-risk types such as Types 16, 18 cause Cancer
- The lifetime risk of acquiring HPV in sexually active women is 86% by age 50;
- Women with persistent HPV are at risk of cervical Cancer
- It takes 10-15 years for women with pre-cancer lesions to develop cancer.
- The pre-cancer & early stages are asymptomatic, symptoms indicate advanced stage

Introduction to Cervical Cancer

ISO 9001:2015 Certified

- Affects the most vulnerable women - **peak age is 35-49 years**;
- **Cervical cancer & HIV**: In women living with HIV/AIDS:
  - Cervical cancer occurs a decade earlier
  - It is more aggressive
  - They have **6 times** more risk than HIV negative
- Causes emotional trauma, financial burden, social impact
- **Cervical Cancer is Preventable**

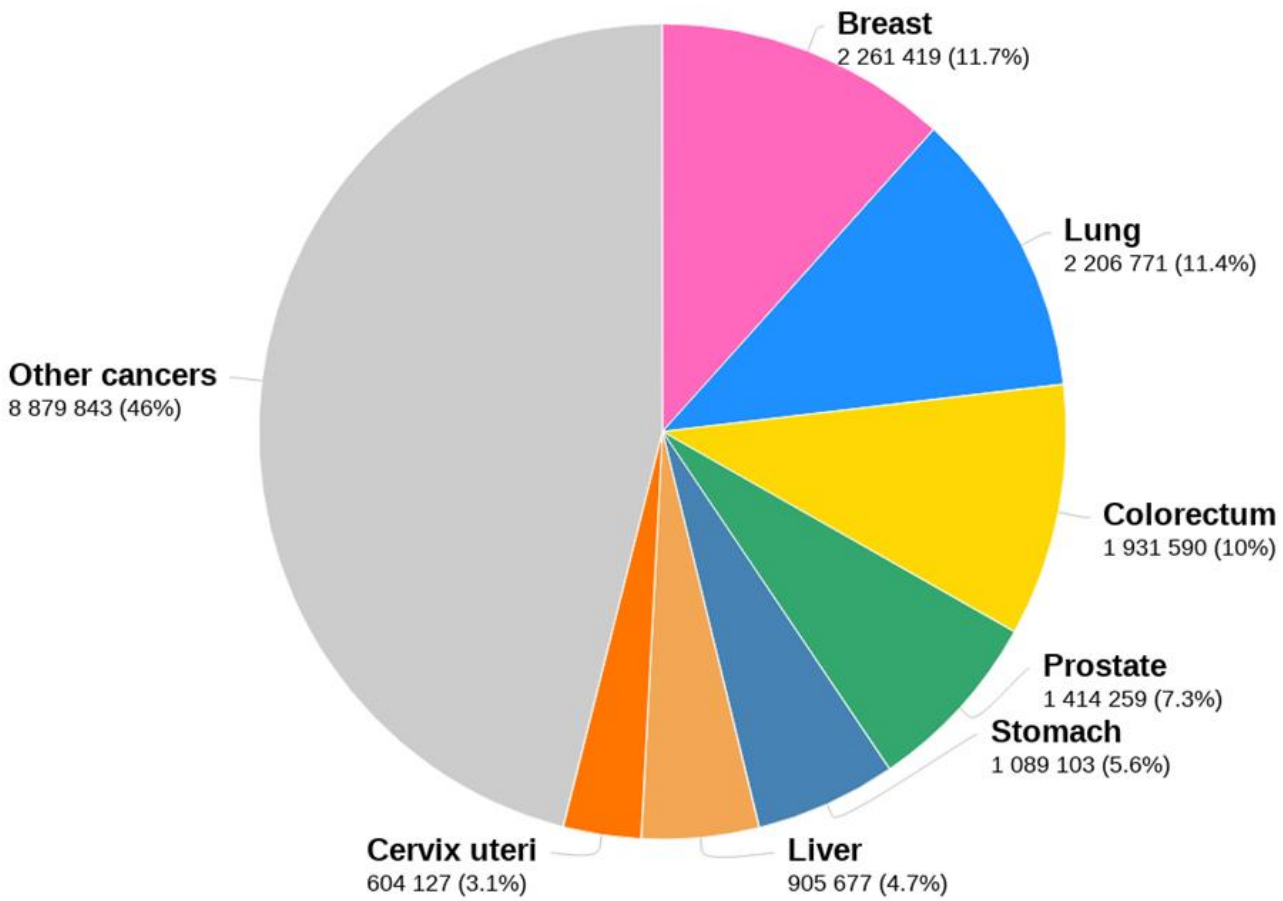
NATIONAL CANCER CONTROL PROGRAM

ISO 9001:2015
Certified

Cancer Burden: Global & Local

NATIONAL CANCER CONTROL PROGRAM

Global Burden of Cancer: New cases, 2020

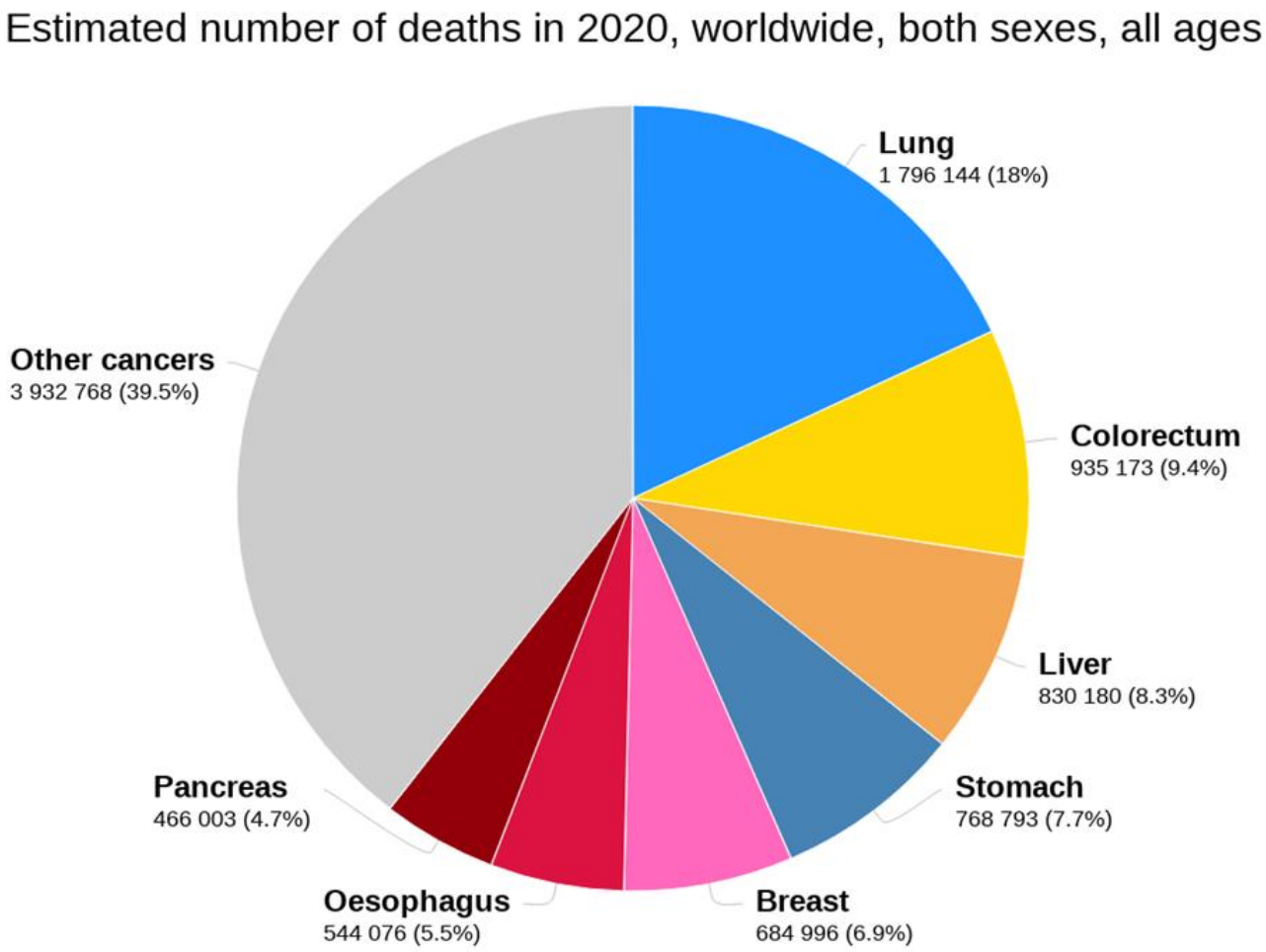


Data source: Globocan 2020
Graph production: Global Cancer Observatory (http://gco.iarc.fr)

International Agency for Research on Cancer
World Health Organization

NATIONAL CANCER CONTROL PROGRAM

Global Burden of Cancer: Deaths, 2020



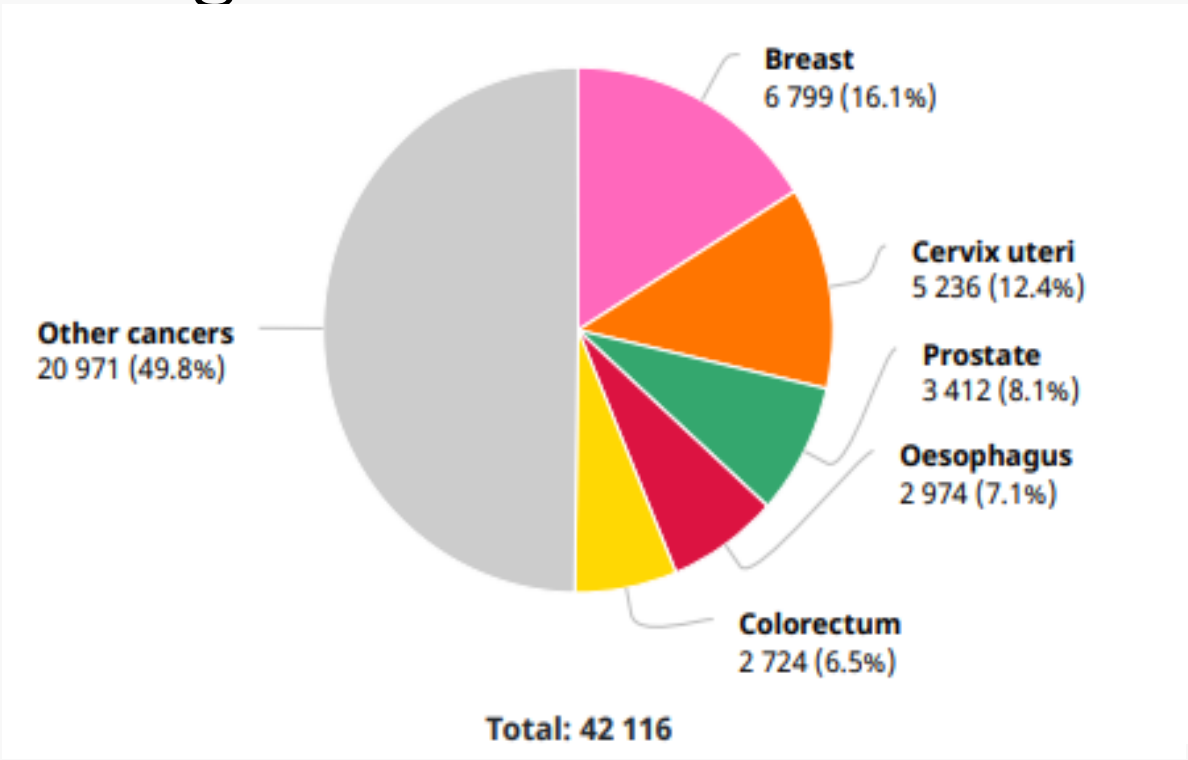
Data source: Globocan 2020
Graph production: Global Cancer Observatory (http://gco.iarc.fr)

International Agency for Research on Cancer
World Health Organization

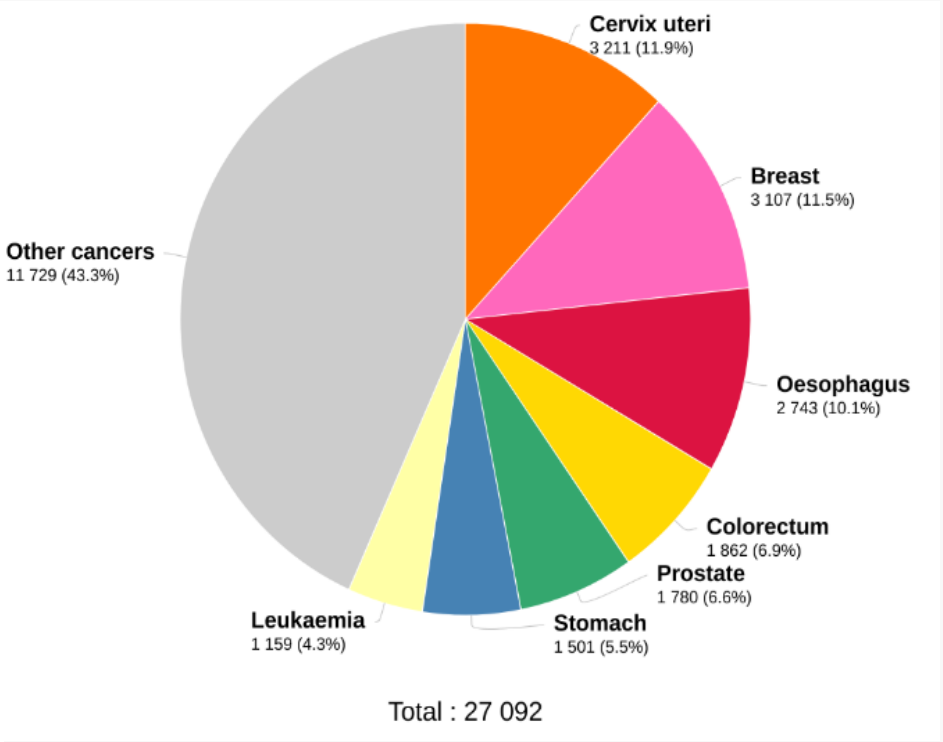
NATIONAL CANCER CONTROL PROGRAM

Kenya Burden: Cancer

- Cancer is the second leading cause of NCD deaths
- Rising trend: 14% rise in new cases from 2012 to 2020



Incidence



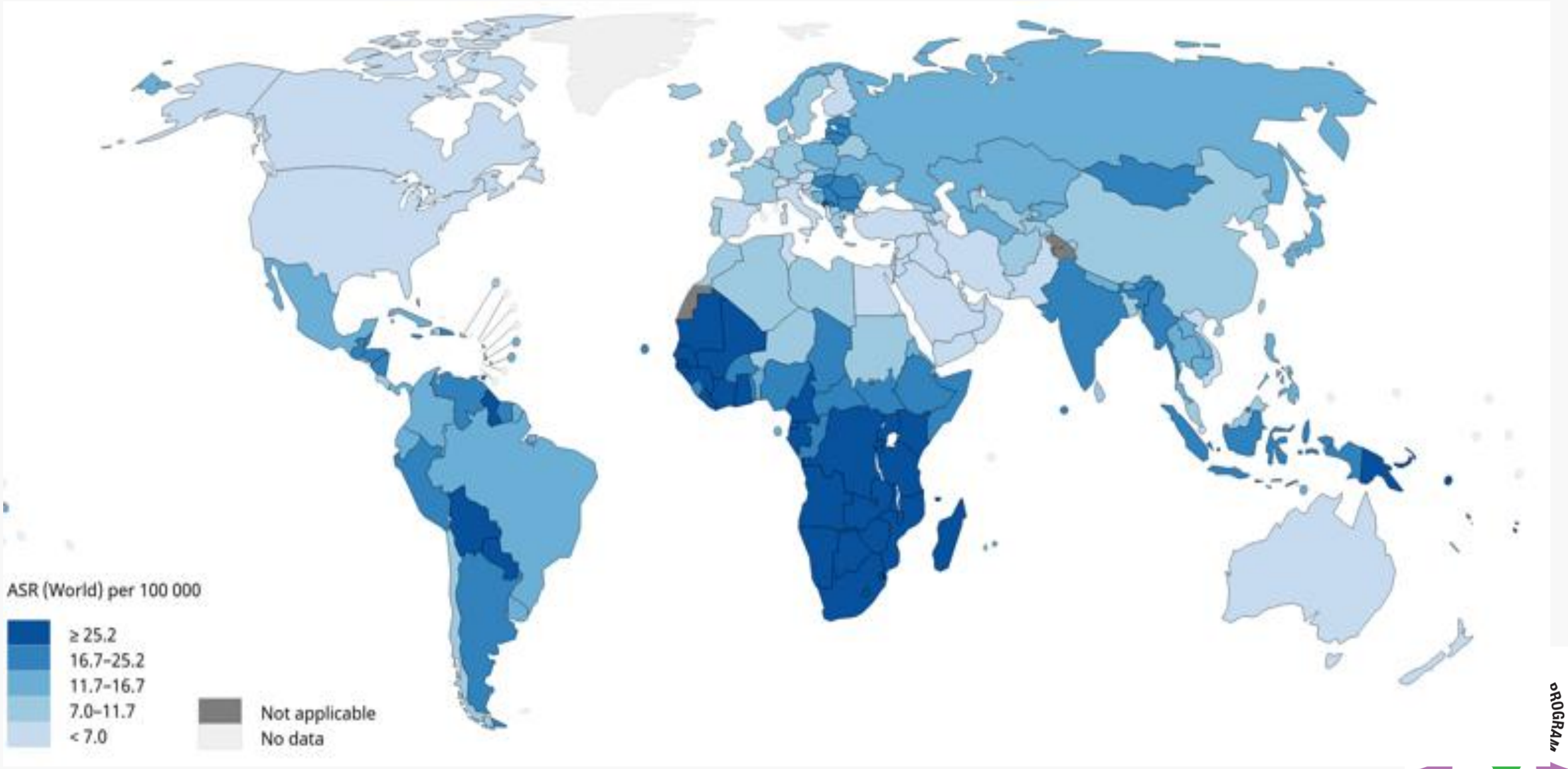
Deaths

Source: GLOBOCAN, 2020

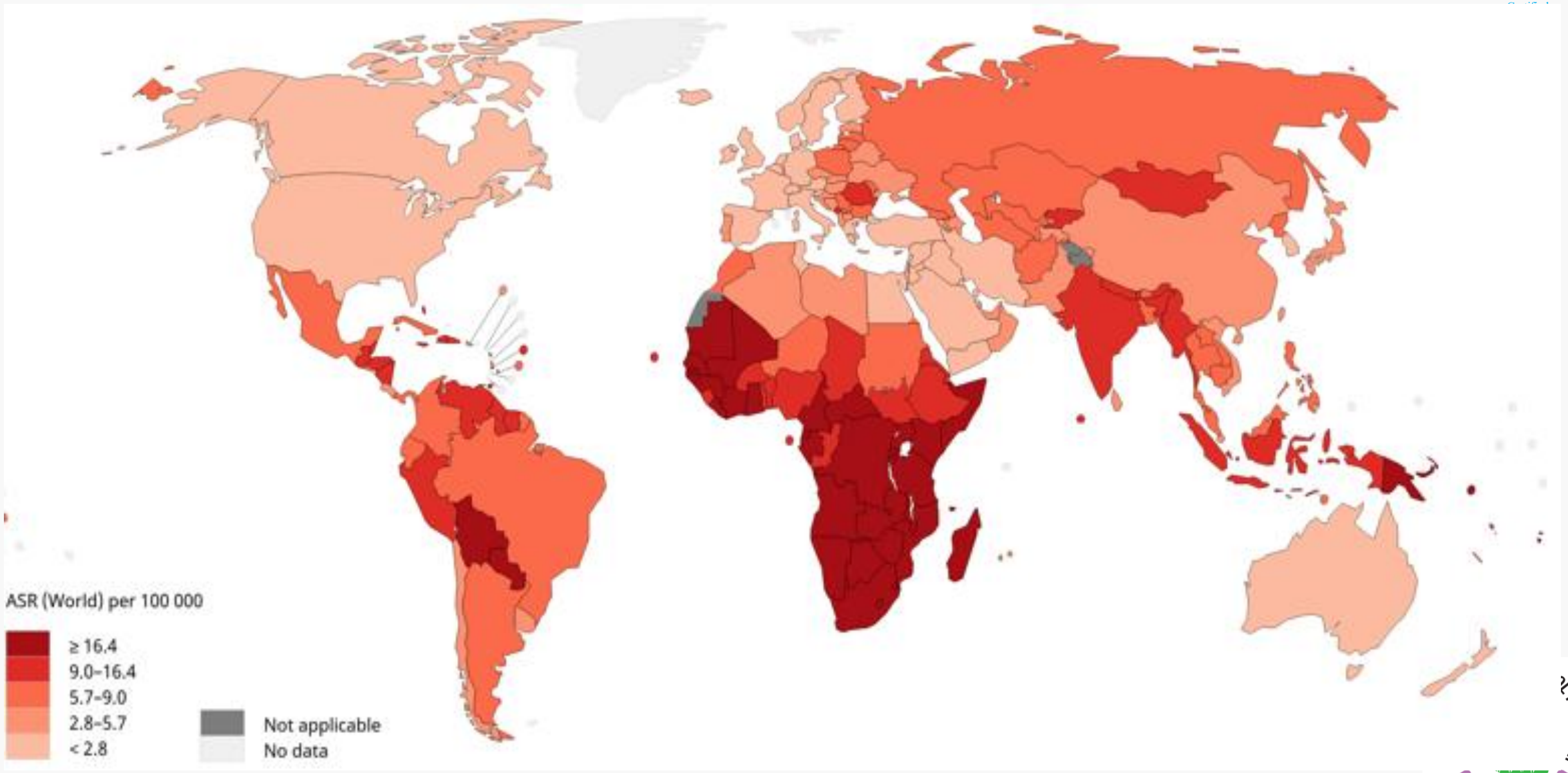
ISO 9001:2015
Certified

Cervical Cancer: Burden

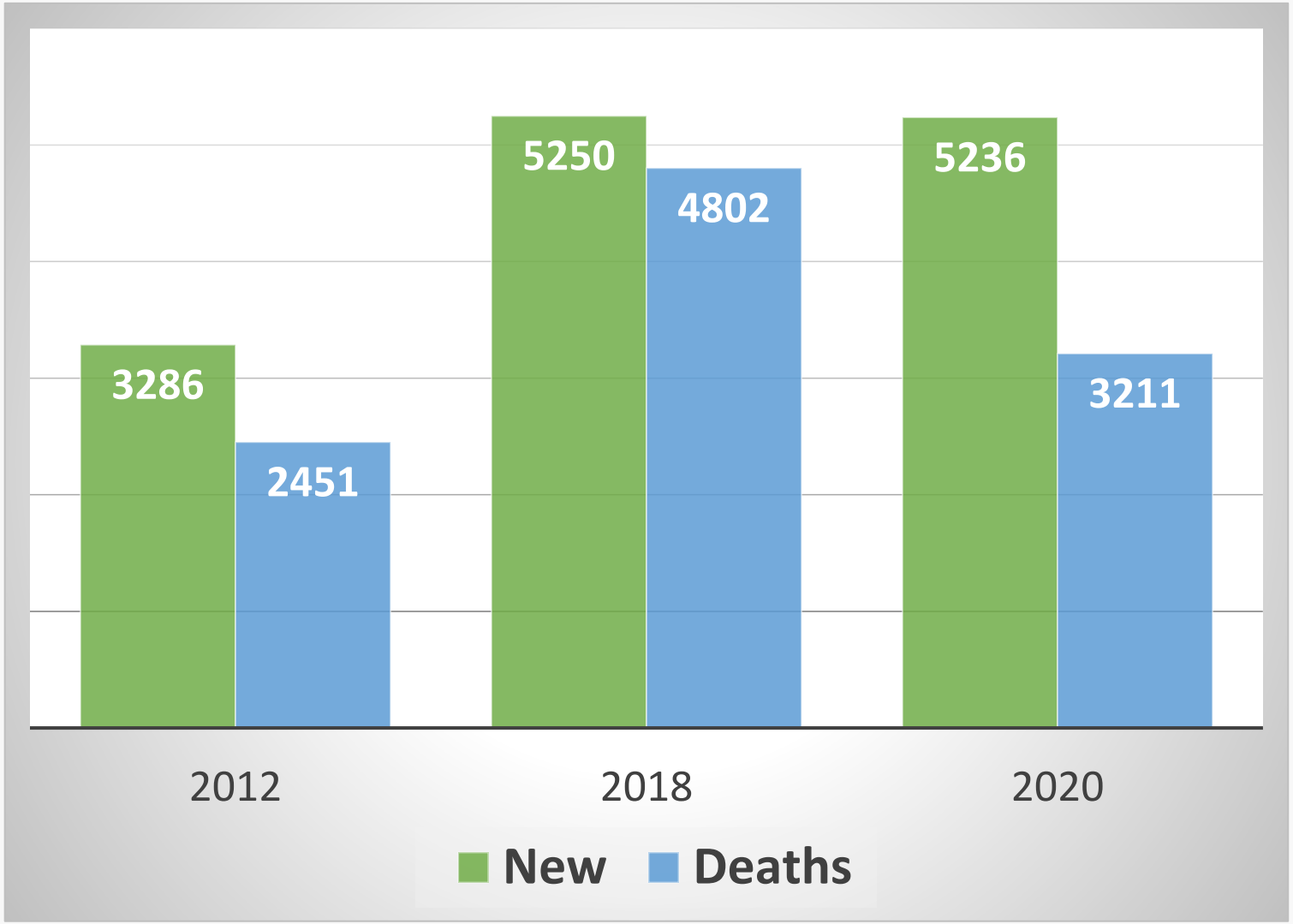
Global Incidence Rates – Cervical Cancer



Global Mortality Rates – Cervical Cancer



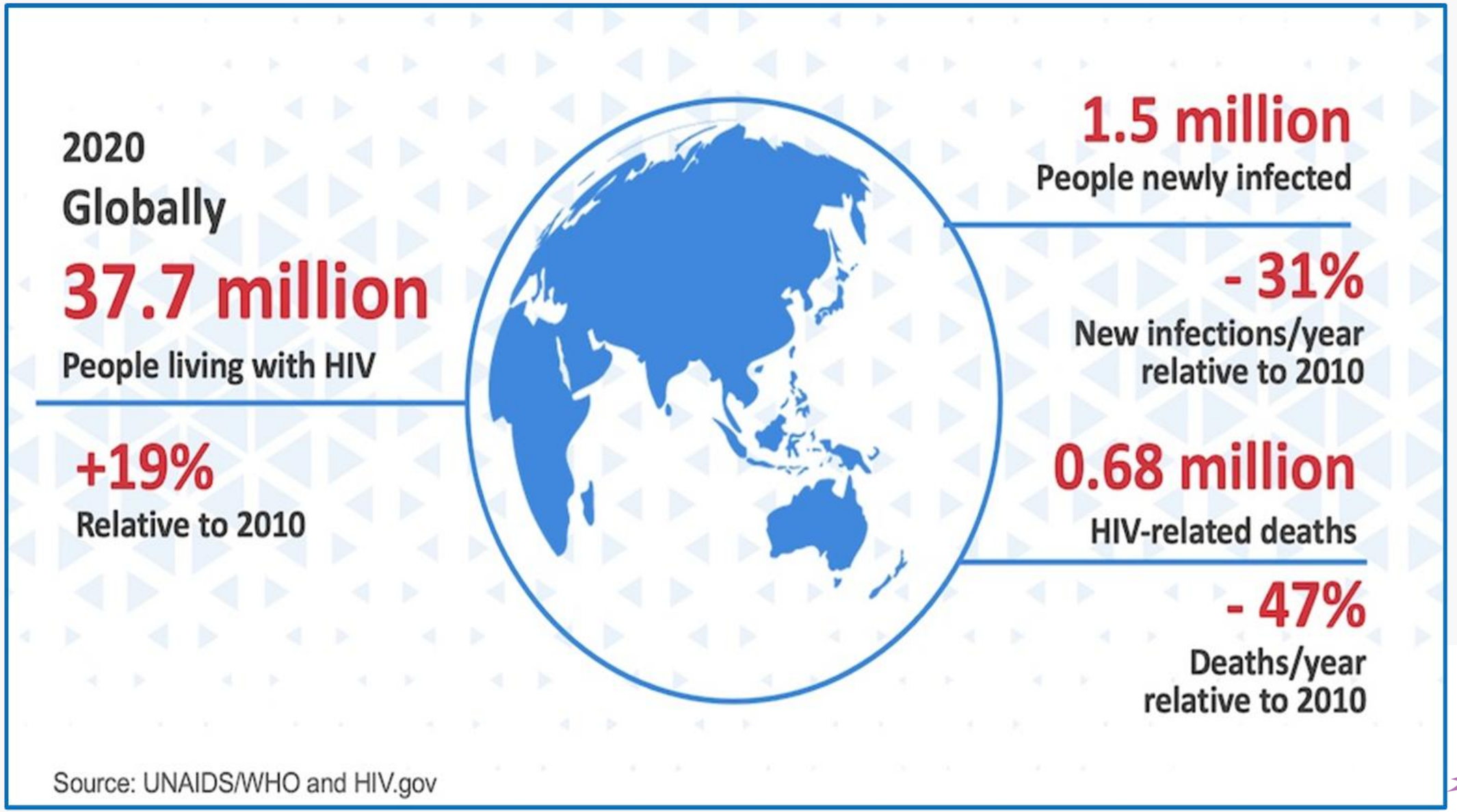
Kenyan Burden of Cervical Cancer



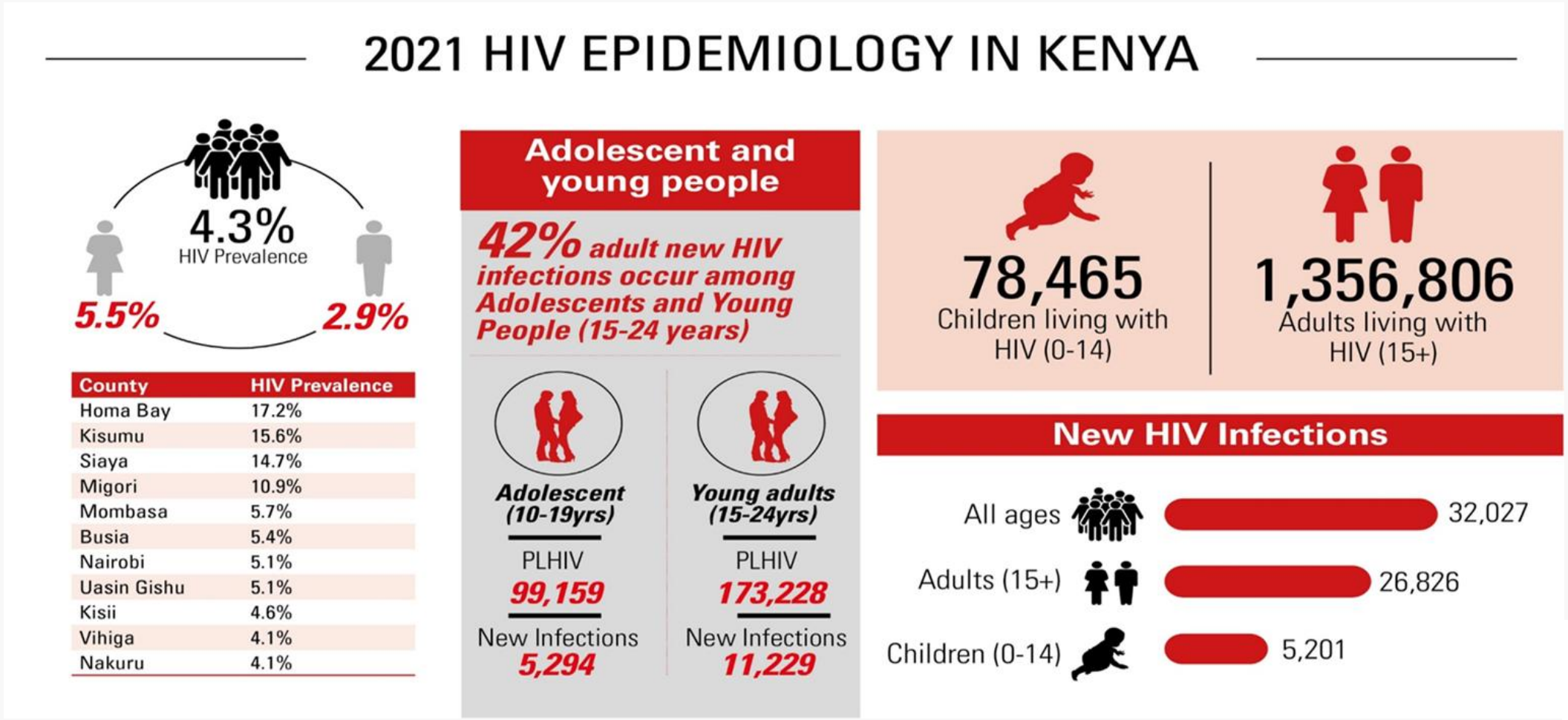
- Overall, the trend of the cervical cancer burden is rising as depicted from 2012 to 2018.

*Data source: GLOBOCAN

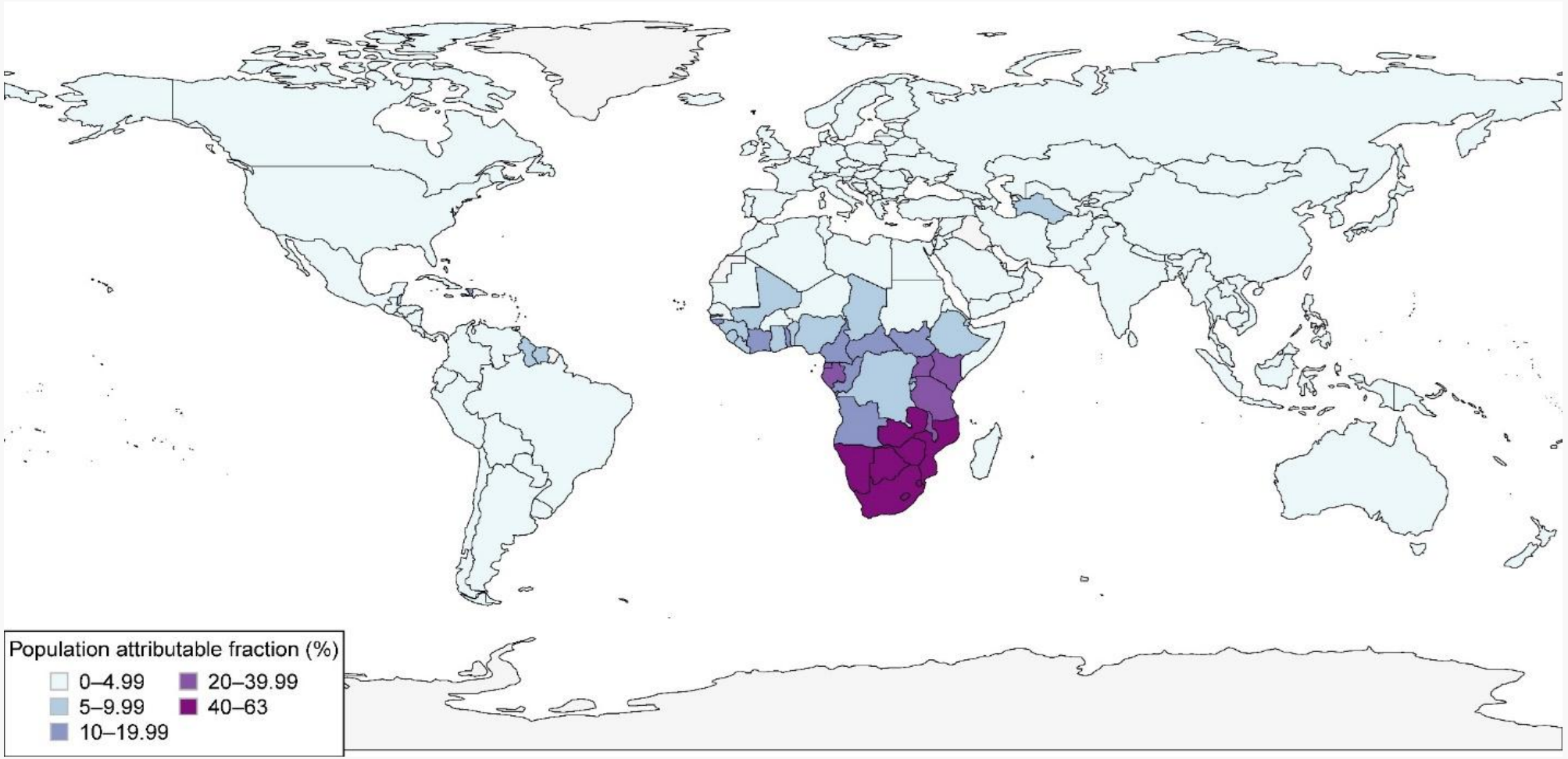
Global Burden HIV, 2020



Kenya Burden of HIV, 2021



Population attributable fraction of women with cervical cancer living with HIV, 2018



Women living with HIV (WLHIV) are six times more likely to develop cervical cancer

Policy Context for Cervical Cancer Elimination

Global

- **WHO 2018 call to action to eliminate cervical cancer:**
  - ❑Global Strategy to Accelerate the Elimination of Cervical Cancer as a Public Health Problem was launched in November 2020
  - ❑**90:70:90** targets to be met by 2030 for countries to be on the path towards cervical cancer elimination:
    - **90%** of girls fully vaccinated with the HPV vaccine by age 15.
    - **70%** of women are screened with a high-performance test by 35, and again by - 45 years of age.
    - **90%** of women identified with cervical disease receive treatment (90% of women with pre-cancer treated/ invasive cancer managed).

Global strategy to accelerate the elimination of cervical cancer as a public health problem

90%

of girls fully vaccinated with HPV vaccine by age 15 years.

70%

of women are screened with a high-performance test by 35 years of age and again by 45 years of age.

90%

of women identified with cervical disease receive treatment (90% of women with precancer treated, and 90% of women with invasive cancer managed).

World Health Organization

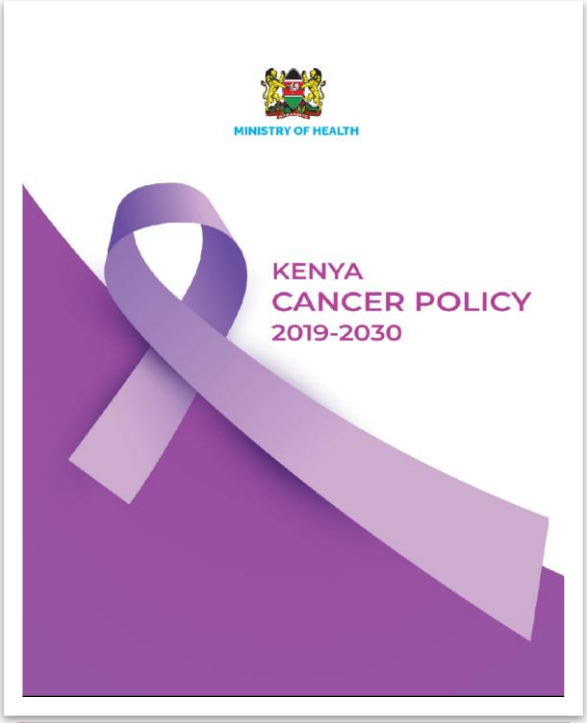
The Kenyan Policy Framework

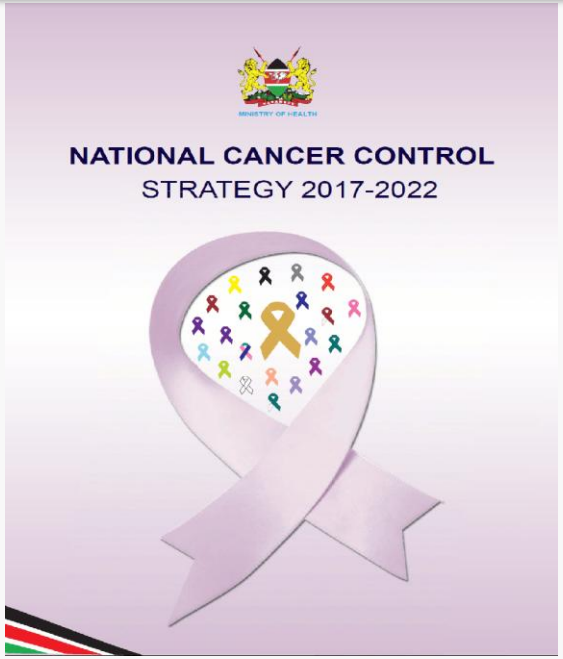
ISO 9001:2015 Certified

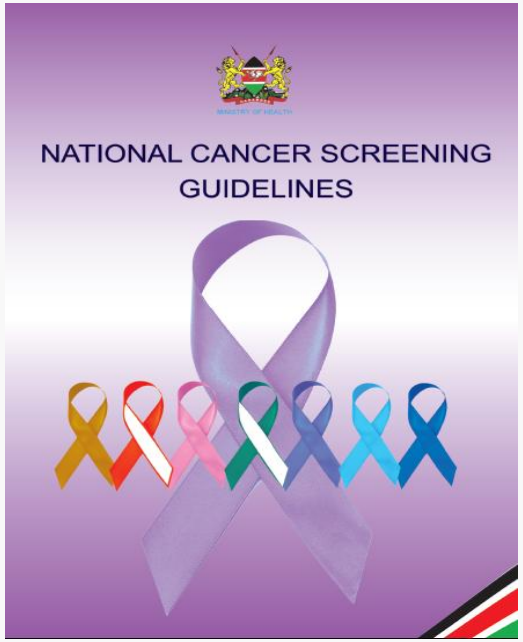
Kenya Cancer Policy Documents:

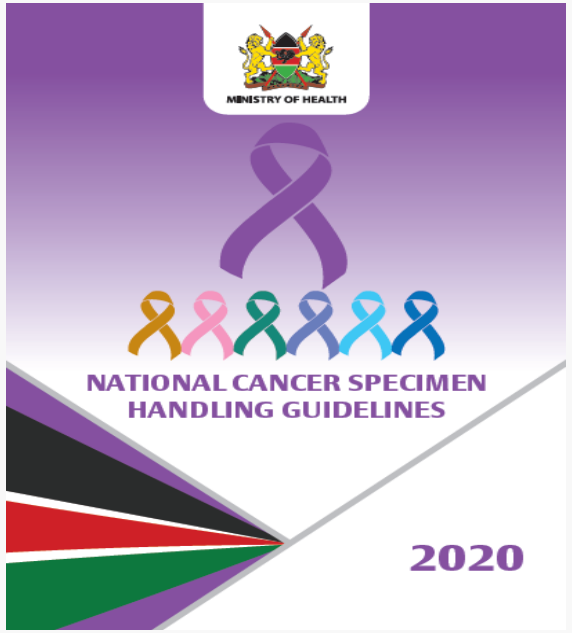
- Kenya Cancer Policy 2019-2030
- National Cancer Control Strategy 2017-2022
- National Cancer Screening Guidelines 2018
- National Cancer Specimen Handling Guidelines 2020
- National Cancer Treatment Protocols 2019

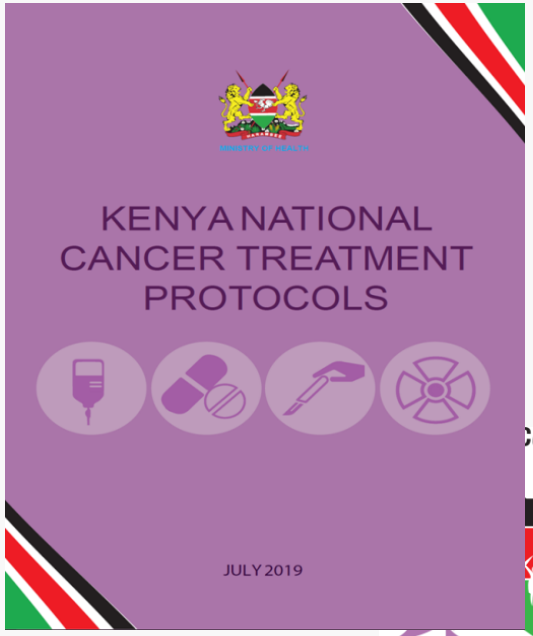
NOTE: All the documents are available online!



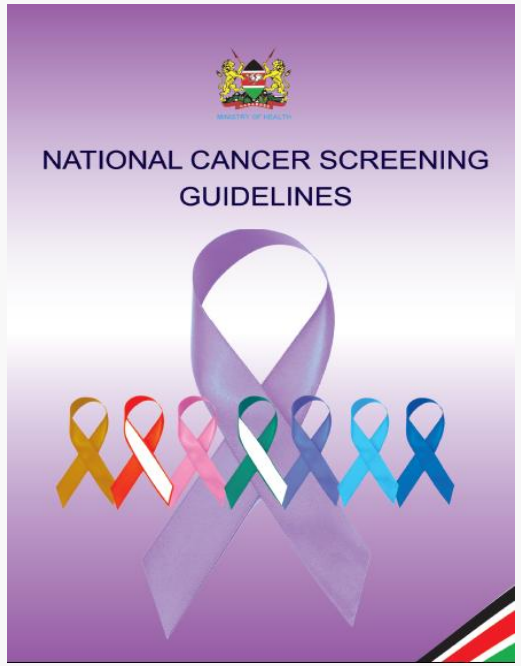








Cervical Screening Guidelines Recommendations



- **Eligible** - Any woman who has ever had sexual intercourse
- **Target population:** women aged **25 to 49 years**.
- ***HPV test*** *recommended as primary method for* ***age 30 years and above***
- **Screening interval:**
  - HIV negative women - every **5 years**.
  - HIV positive women - **every two years (HPV test)** or **every year (VIA)**

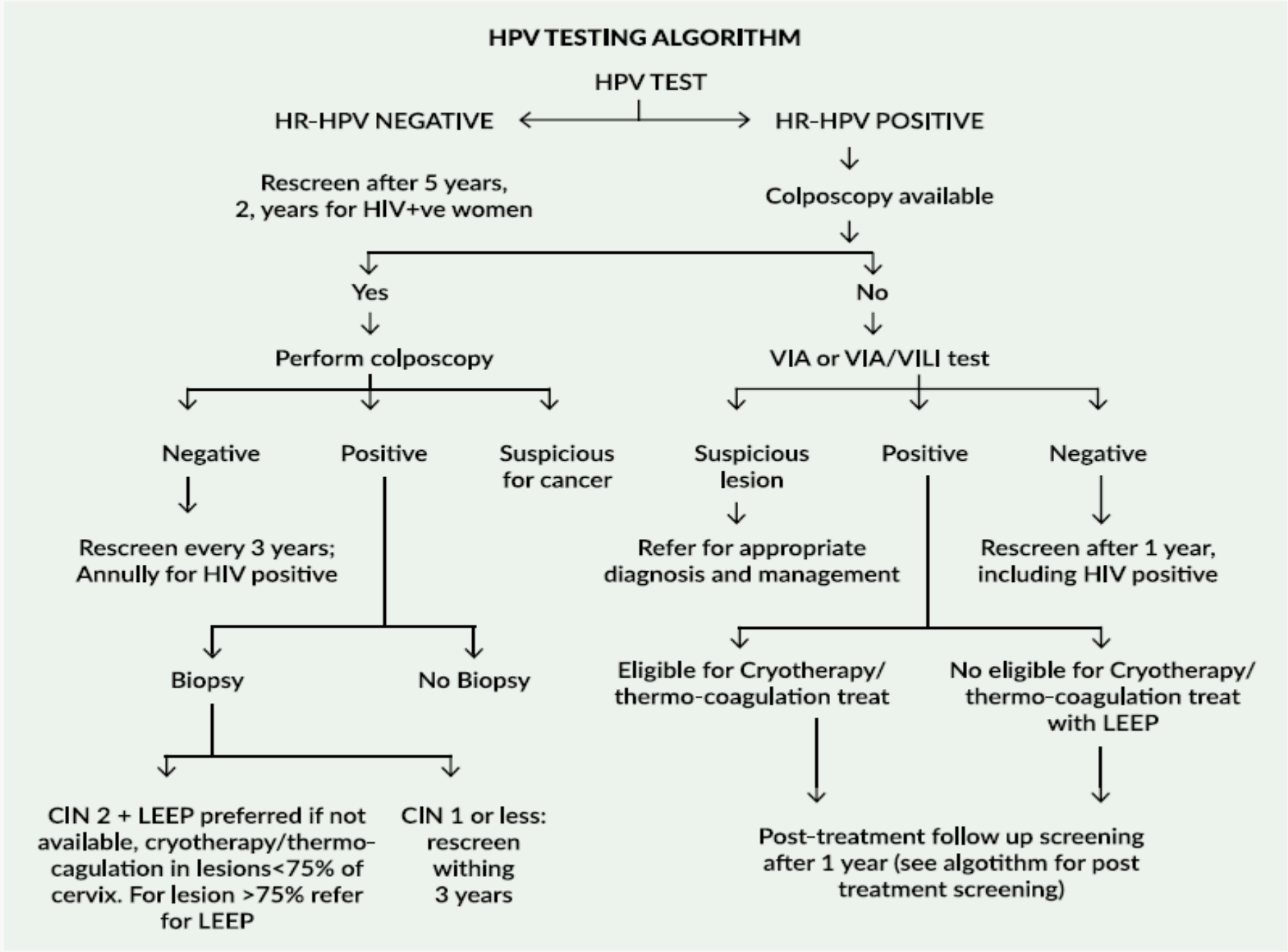
ROLE OF COLPOSCOPY IN CERVICAL PRECANCER

Intro…

- A positive diagnostic test result reveals an abnormality or disease
- When a woman receives an abnormal cervical screening test result, the expectations and fears that she carries are quite different.
- Cervical screening tests – whether visual inspection, cervical cytology, or human papillomavirus (HPV) tests – do not give a diagnosis; rather, they modify the risk for an individual of developing cervical cancer

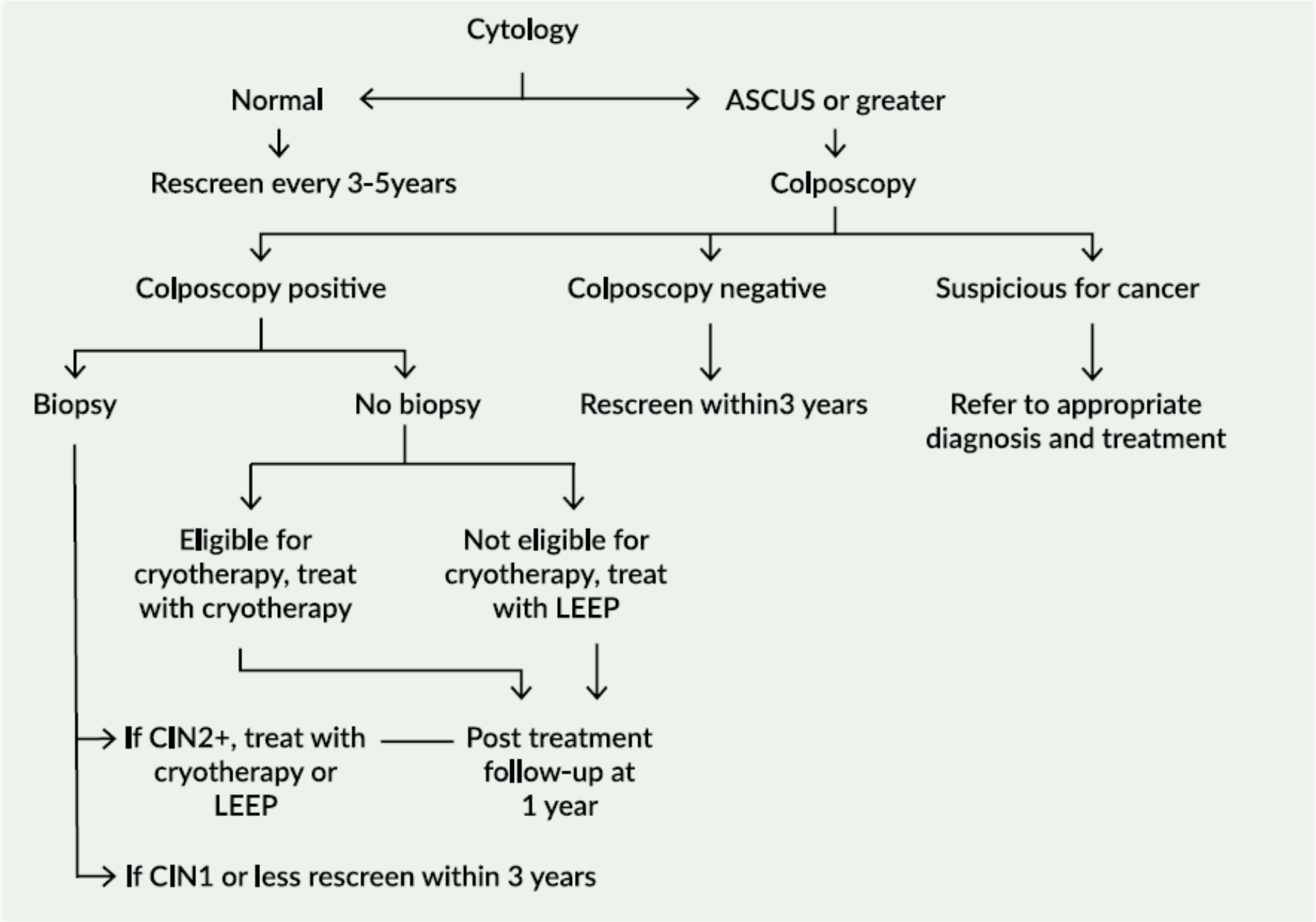
ISO 9001:2015
Certified

HPV Testing Algorithm



ISO 9001:2015
Certified

Cytology Algorithm



Screening Tests

- Current screening tests for cervical precancer are neither completely sensitive nor absolutely specific.
- For example, testing for oncogenic (or high-risk) HPV will pick up almost all cervical precancerous lesions but will also test positive in women who have innocent and transient high-risk HPV infection
- In study, 73% of women with a positive oncogenic HPV test also had a negative or normal smear (Katki et al., 2011).
- Cytology, in contrast, is far more specific than HPV testing but has a low sensitivity.
- The long natural history of cervical cancer is forgiving of the relatively poor sensitivity of cytology.

Cont…

- Cytology will sometimes recognize cells that are very mildly abnormal, or even of a “borderline” nature: borderline nuclear abnormality, and atypical squamous cells of undetermined significance (ASCUS).
- These categories of abnormality create headaches and frustration for both clinician and patient.
- Visual inspection with acetic acid (VIA) is fast becoming the de facto screening method of choice in many regions where cytology and HPV testing are out of reach.
- However, the specificity of VIA is poor, and the difficulty of missing endocervical lesions (whether they are squamous or glandular) is a real problem.

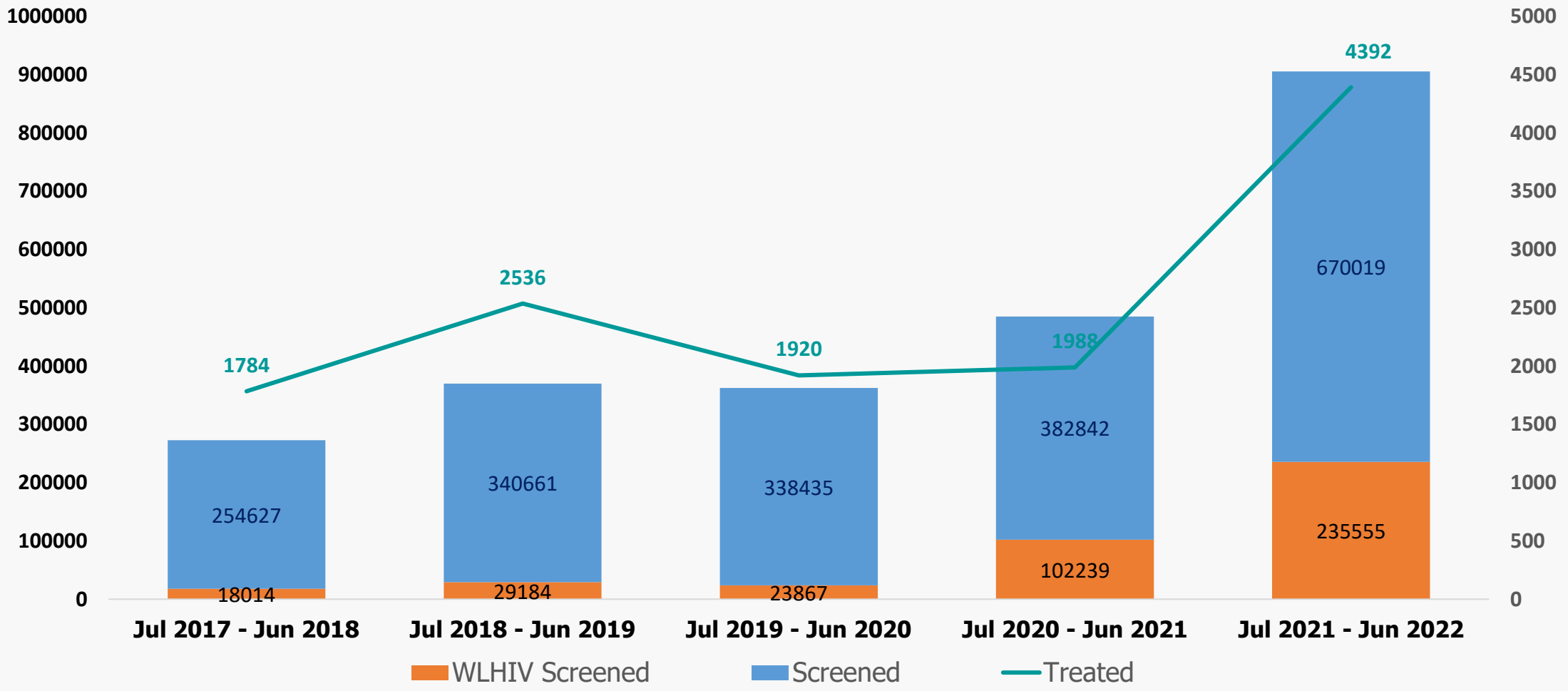
Cont…

- Screening tests (VIA, cytology, and HPV testing) are imperfect, and women with an abnormal primary screening test need further consideration before reflex referral to colposcopy and/or management.
- For those women in whom a suspicion of CIN2 has been reported, referral to colposcopy is still the appropriate advice.
- Colposcopy is also important in avoiding overtreatment that may occur with “screen-and-treat” programmes where false-positive rates may be very high (Basu et al., 2015).
- Finally, colposcopy may recognize invasive cancer not heralded by a screening test

ISO 9001:2015
Certified

Current Performance/Trends

Women Screened & Treated - July 2017-Jun 2022



Cervical Cancer Program Inputs

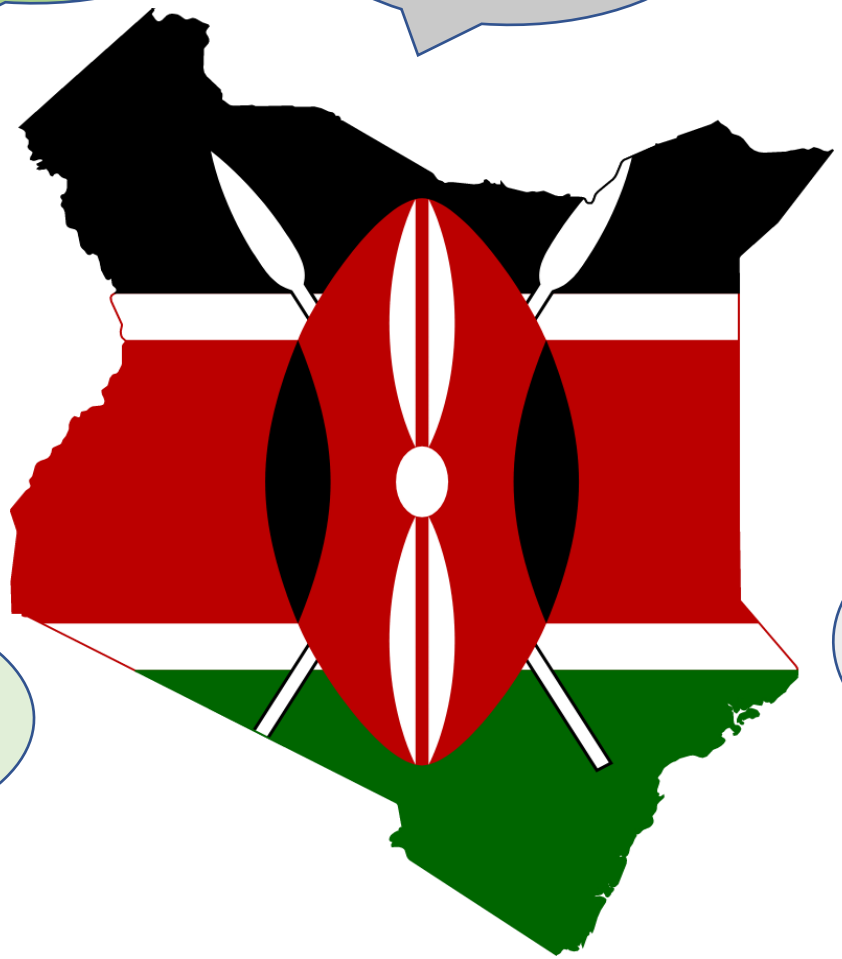
HPV testing pilot
2019-2020

LEEP Training
Trained a pool of **20 OB/GYN consultants** as **master trainers**

"Screen and Treat"
Selection and Training of **25 Master trainers**

Selection and Training of **427 TOTs** *(at least 2 from each Subcounty)*

Advocacy Guide development & Training of champions



Selected and Trained **220 SPs** *(Gynecologists, MO's and CORH)* in **126 L4 and L5 GOK facilities** *(including mission hospitals in some counties)*

Cascade training at facility level, trained **~6,000 HCPs** targeting over **3,000 GOK facilities** on Screen and Treat

Awareness:
IEC materials, CHV training manuals

Distributed **100 LEEP devices** for treatment of extensive lesions

Distributed over **800 TA devices** for treatment of cervical precancerous lesions

Treatment:
10 county chemo centers, 3 radiotherapy

National Cancer Reference Laboratory:
HPV testing, cytology, histology, training & mentorship of county lab staff

Cervical Cancer Screening Program Indicators

Type	Indicator	Tracked in Kenya?
Performance	Screening coverage rate	Yes, KHIS
	Screening test positivity rate	Yes, KHIS
	Treatment rate	Yes, KHIS
	Single Visit Approach (SVA) rate	No [Oncology EMR]
Outcome	Coverage of target population	Yes, KHIS
	Age-specific cervical cancer incidence	No, [Kenya National Cancer Registry (KNCR)]
	Cervical cancer mortality	No, [KNCR]

Colposcopy Distribution

COUNTY	FACILITY
Bomet	Bomet CRH
Bungoma	Bungoma CRH
Isiolo	Isiolo CRH
Kajiado	Kajiado CRH
Kakamega	Kakamega CGH
Kericho	Kericho CRH
Kiambu	Kiambu CRH
Kitui	Kitui CRH
Laikipia	Nanyuki CRH
Machakos	Machakos Level 5

COUNTY	FACILITY
Marsabit	Marsabit CRH
Meru	Consolata Hospital Nkubu
Migori	Migori CRH
Mombasa	Likoni SCH
Mombasa	Port Reitz
Murang'a	Muranga CRH
Nairobi	Neema Uhai Hospital
Nyandarua	JM Kariuki CRH
Siaya	Siaya CRH
Vihiga	Vihiga CRH

- 20 colposcopes (*Gynius*) distributed by NCCP in 2020
- Training – user orientation done via virtual platform

ISO 9001:2015
Certified

LEEP AND COLPOSCOPY SITUATION ANALYSIS

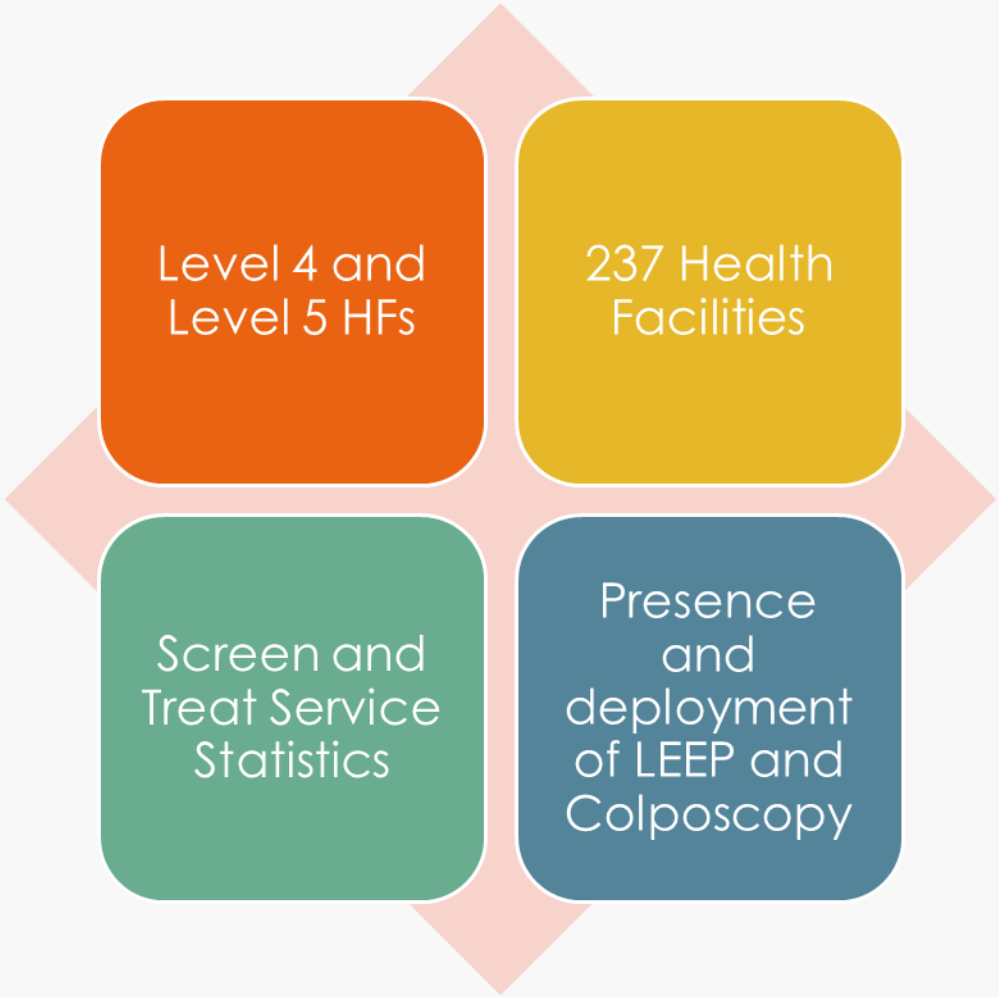
NATIONAL CANCER CONTROL PROGRAM

ISO 9001:2015
Certified

Outline

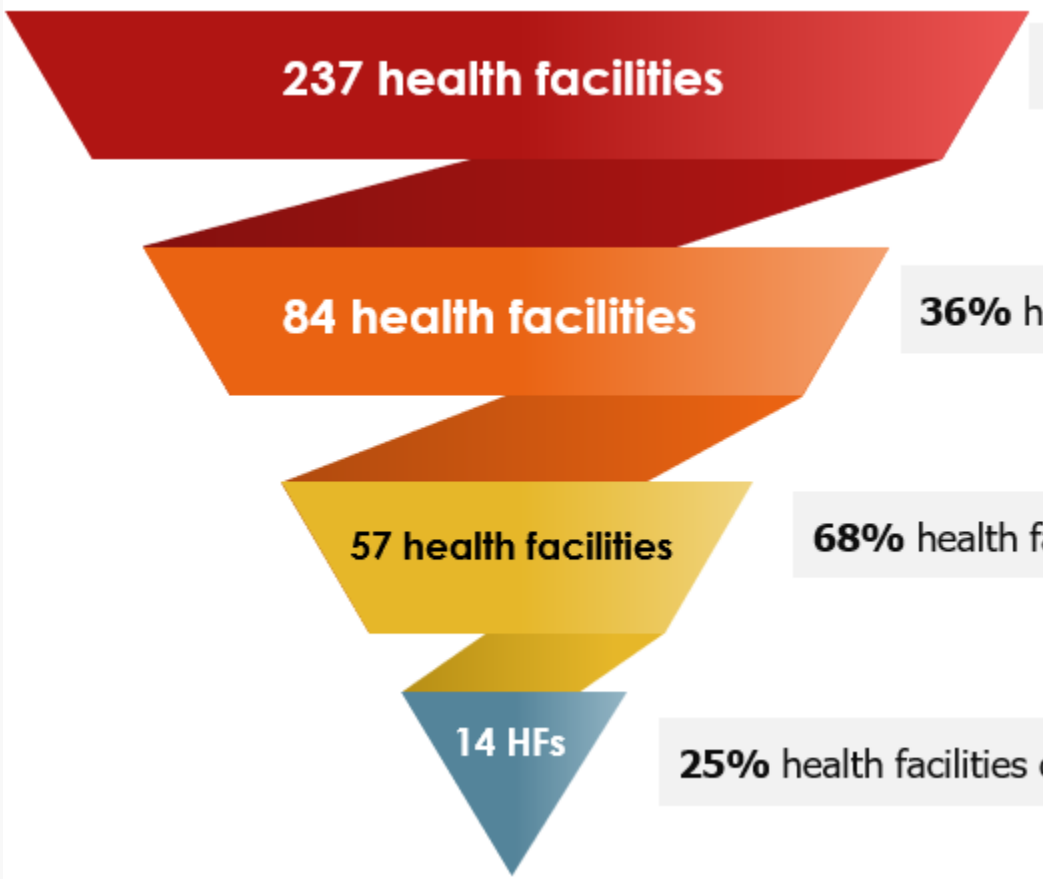
- Summary of health facilities surveyed
- LEEP & Colposcopy Distribution
- Screen and Treat Service Statistics
- Colposcopy Analysis: Findings
- Recommendations

The survey looked at 25 focus counties



NATIONAL CANCER CONTROL PROGRAM

Health Facilities Surveyed



These consisted of **220 level 4** facilities and **17 level 5** facilities.

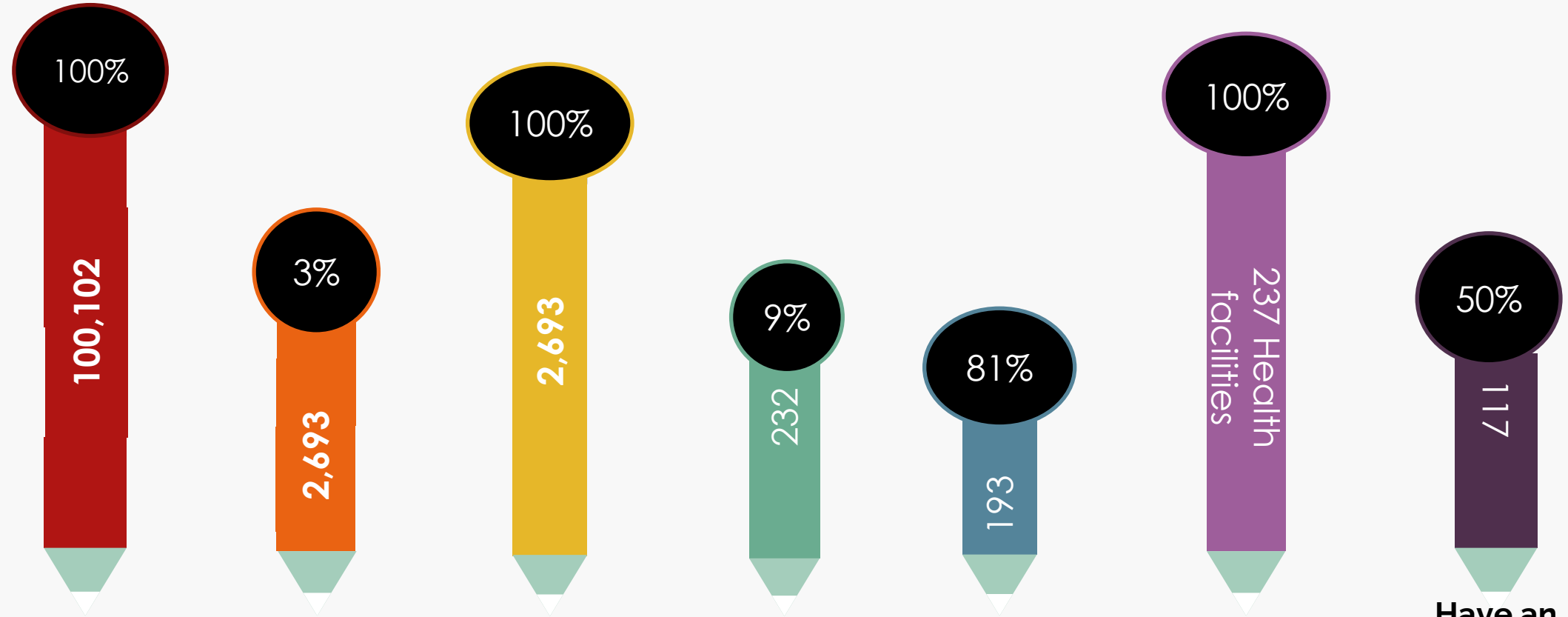
36% health facilities reported to have **LEEP devices.**

68% health facilities reported to have LEEP devices **offered the LEEP.**

25% health facilities offering LEEP had onsite **histology services.**

ISO 9001:2015
Certified

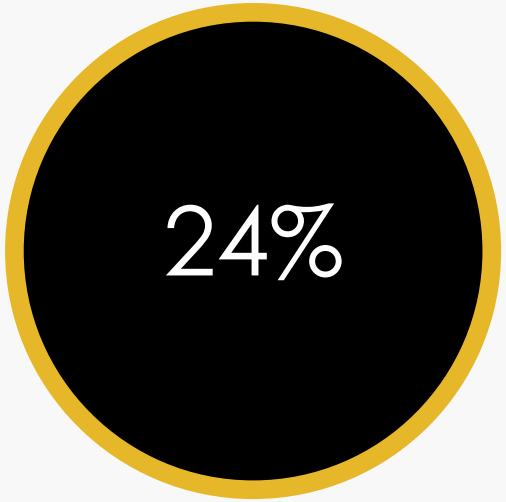
Screen and Treat Service Statistics



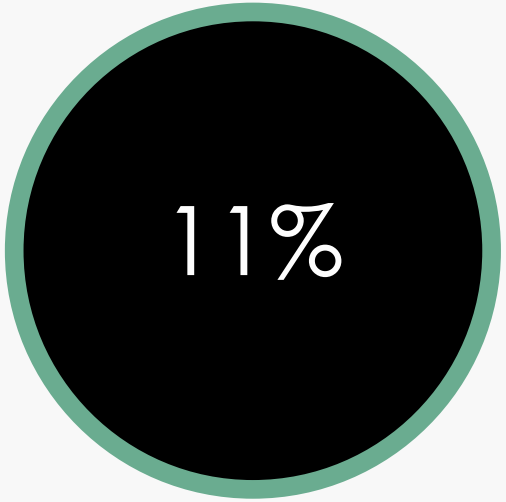
NATIONAL CANCER CONTROL PROGRAM

Colposcopy Analysis: Findings

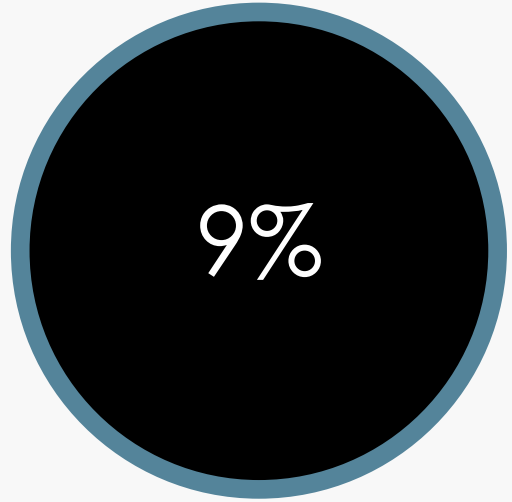
The number of health facilities sampled by a self-administered questionnaire through the CFPs



57 facilities offer LEEP services in the 25 focus counties



26 facilities report to have colposcopy devices.



21 facilities that have colposcopy devices in a functioning condition and a further 18 facilities have their devices in use.

Colposcopy: Recommendations

- Huge gap in capacity building of service providers: Training required.
- Procurement and placement of LEEP and colposcopy devices.
- Reporting and documentation of both services.

Brief on NCCP/CHAI Partnership

- **Sept 2019-Dec 2020**: **HPV POC testing Pilot project** introduced in 9 facilities in 6 counties to inform national scale up.
- **August 2020**: National scale-up of cervical cancer screening and treatment in 25 counties through **training** & **provision of screening commodities and equipment .** Two training levels:
  - ❑'Screen and treat' training : Over 1,000 HCW targeted
  - ❑LEEP training: up to 300 HCW targeted
  - ❑Colposcopy training: 50 facilities

Equipment/commodity donation

- ❑ 1,000 Thermal ablation devices
- ❑ 150 LEEP devices
- ❑ 80,000 HPV test kits
- ❑30 smart colposcopy machines

KEY CHALLENGES IN COLPOSCOPY SERVICE PROVISION

- Shortage of supply of colposcopy equipment; Only 22 counties out 47 counties have colposcopes equipment.
- Sociocultural determinants, health inequities and gender disparities including low awareness levels (lower in rural, uneducated groups).
- Low participation rate screening coverage: 18% (KDHS, 2014), 16.4% (STEPS, 2015) and low HPV vaccination coverage (43% for first dose).
- Shortage of human resources and inadequate skills which involves lack of training or mentorship on cervical cancer screening and treatment.
- Only 22% offer screening and 6% screen & treat. Only 18 facilities in 25 counties sampled offer colposcopy services
- Lack of pathology services in county hospitals
- Health information systems including poor data reporting and poor surveillance/ patient tracking mechanisms.
- Opportunistic vs organized screening programs resulting

Points to Remember

- Cervical cancer is a disease of great public health concern and in Kenya its the leading cause of cancer deaths among women.
- Women living with HIV are **six times** as likely to develop cervical cancer compared to HIV negative women.
- Cervical cancer is 100% preventable
- We must achieve the **90:70:90** global elimination targets to be on the path of elimination through organized screening program with set targets, performance monitoring & quality improvement structures is key!
- Strengthening the key components for health system and work towards overcoming specific challenges to eliminate cervical cancer
- Colposcopy is an important procedure captured in HPV and cytology-based screening algorithms special device used for visualization of the vulva, vaginal walls and the uteri cervix.