

Cervical Cancer & HIV: Intersecting Epidemics

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March 19th 2020



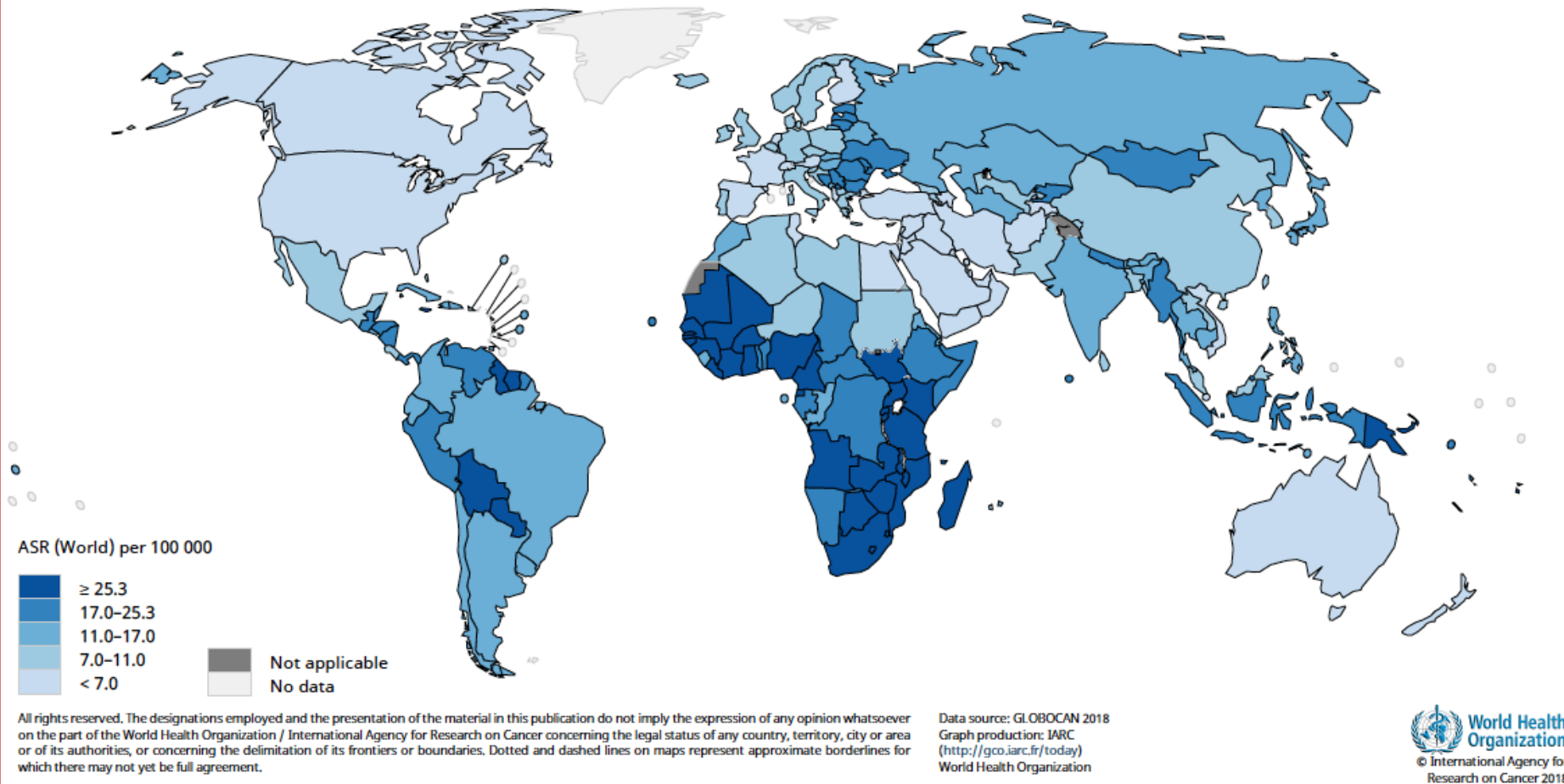
Outline

- Epidemiology of cervical cancer
- Science of Cervical cancer in context of HIV infection
- Funding landscape



Cervical Cancer: A disease of health inequity

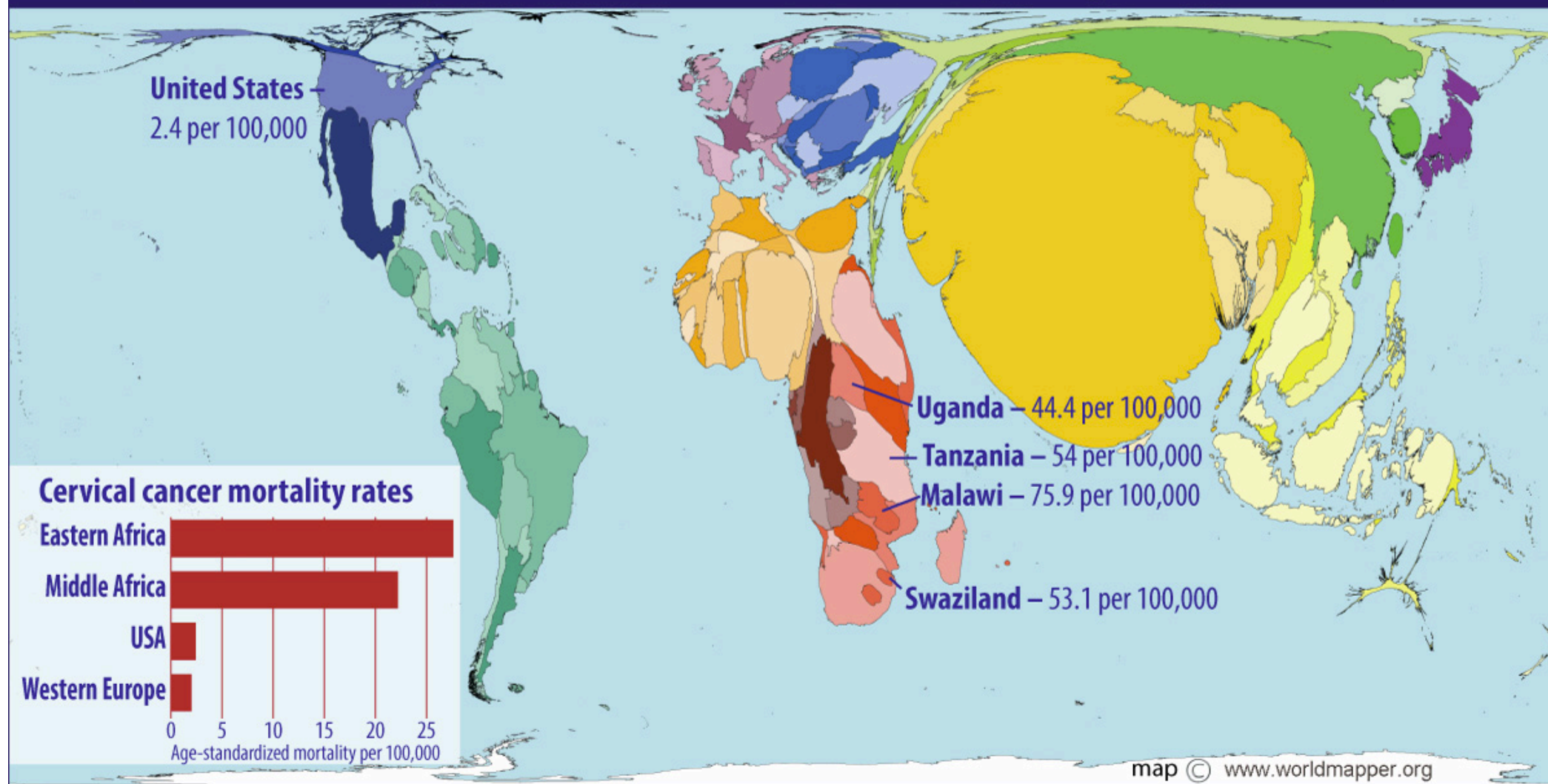
Estimated age-standardized incidence rates (World) in 2018, cervix uteri, ages 0-74



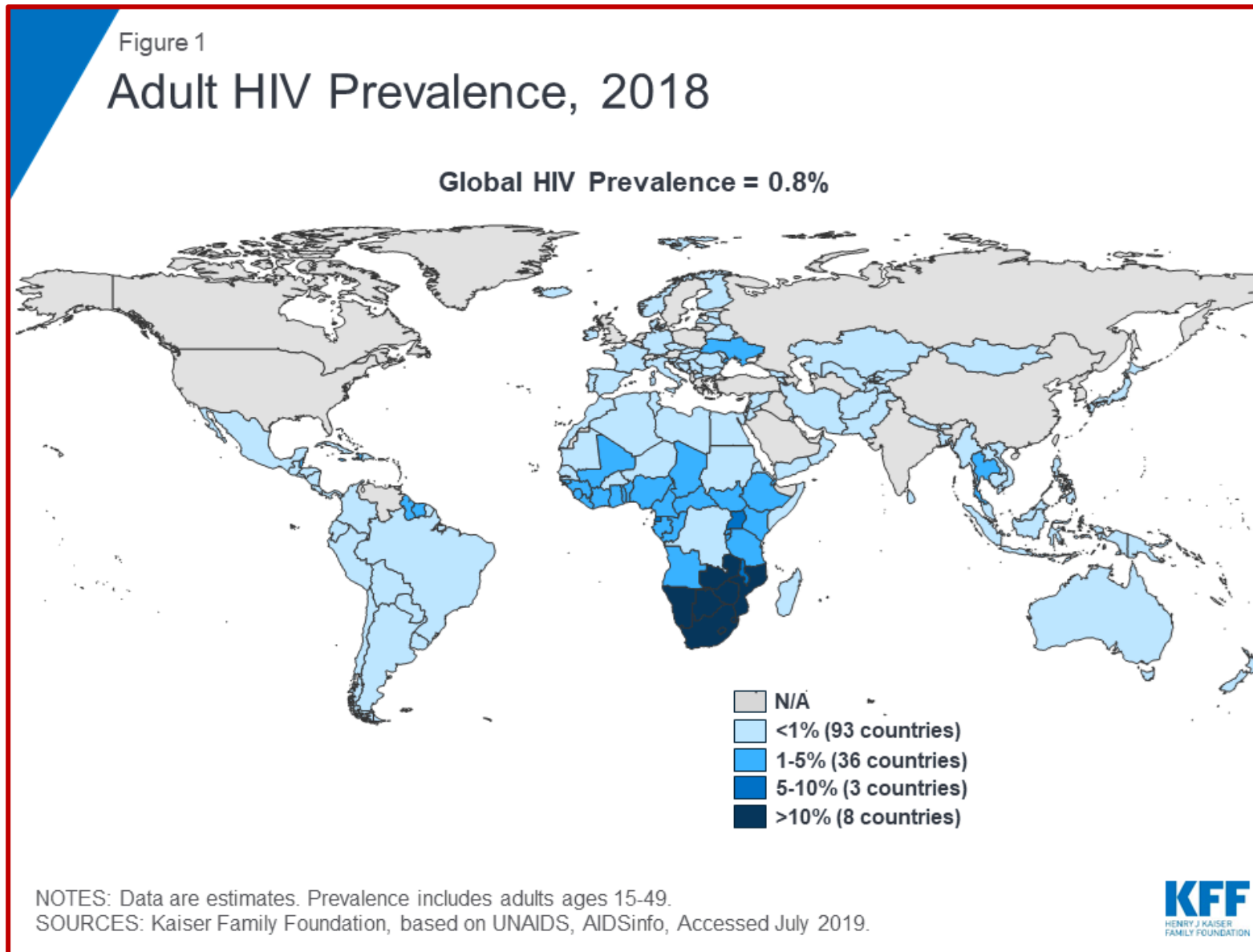
- 570,000 new cases yearly
- 85% cases in low-resource settings
- 311,000 deaths yearly
- 90% mortality in LMICs
- 1 death every two minutes

Cervical cancer – disparities in mortality from a preventable disease

(Map shows countries sized by number of cervical cancer deaths. Numbers represent age-standardized mortality rates.)

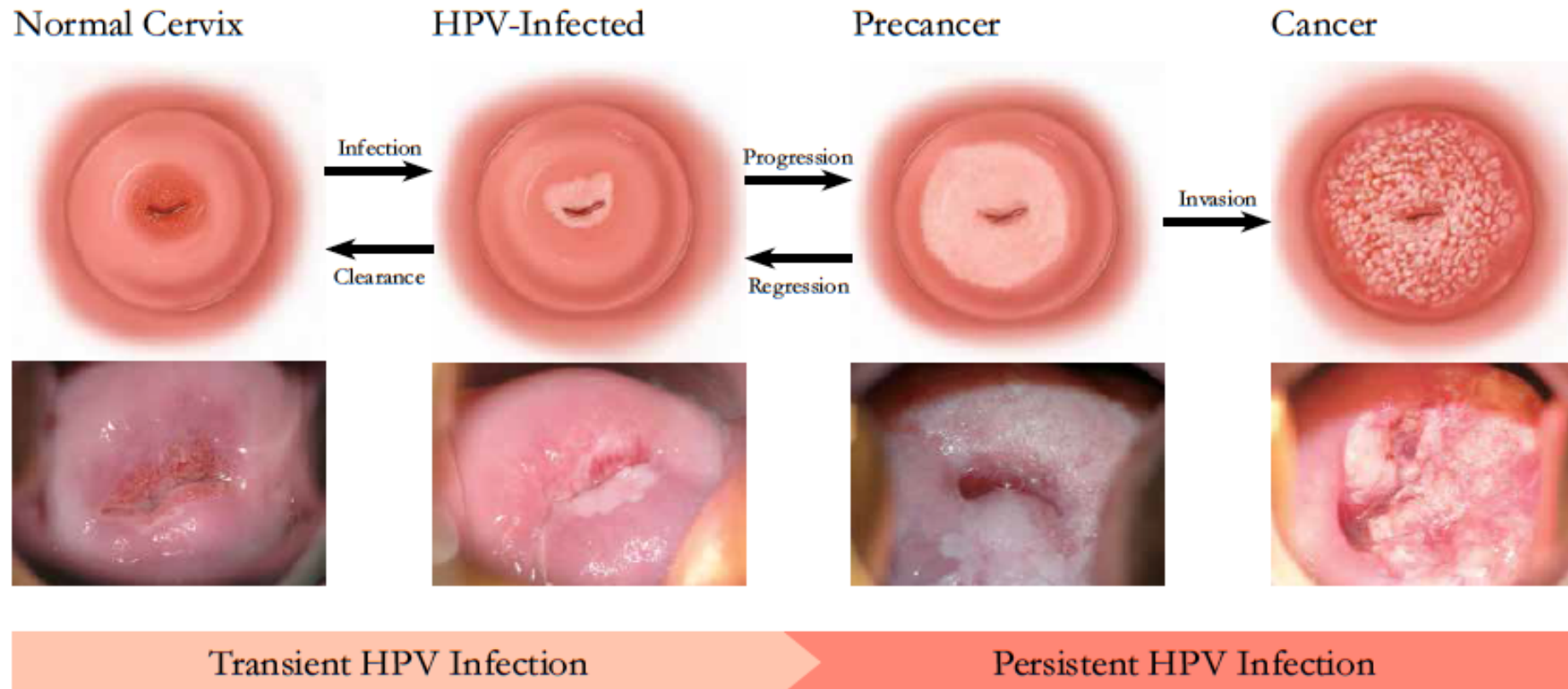


HIV & Cervical Cancer: Epidemics of inequity



- 37 million HIV+ globally
- 52 % women
- > 90% in low-resource settings
- Reflect health gender, socioeconomic inequalities

The Development of Cervical Cancer

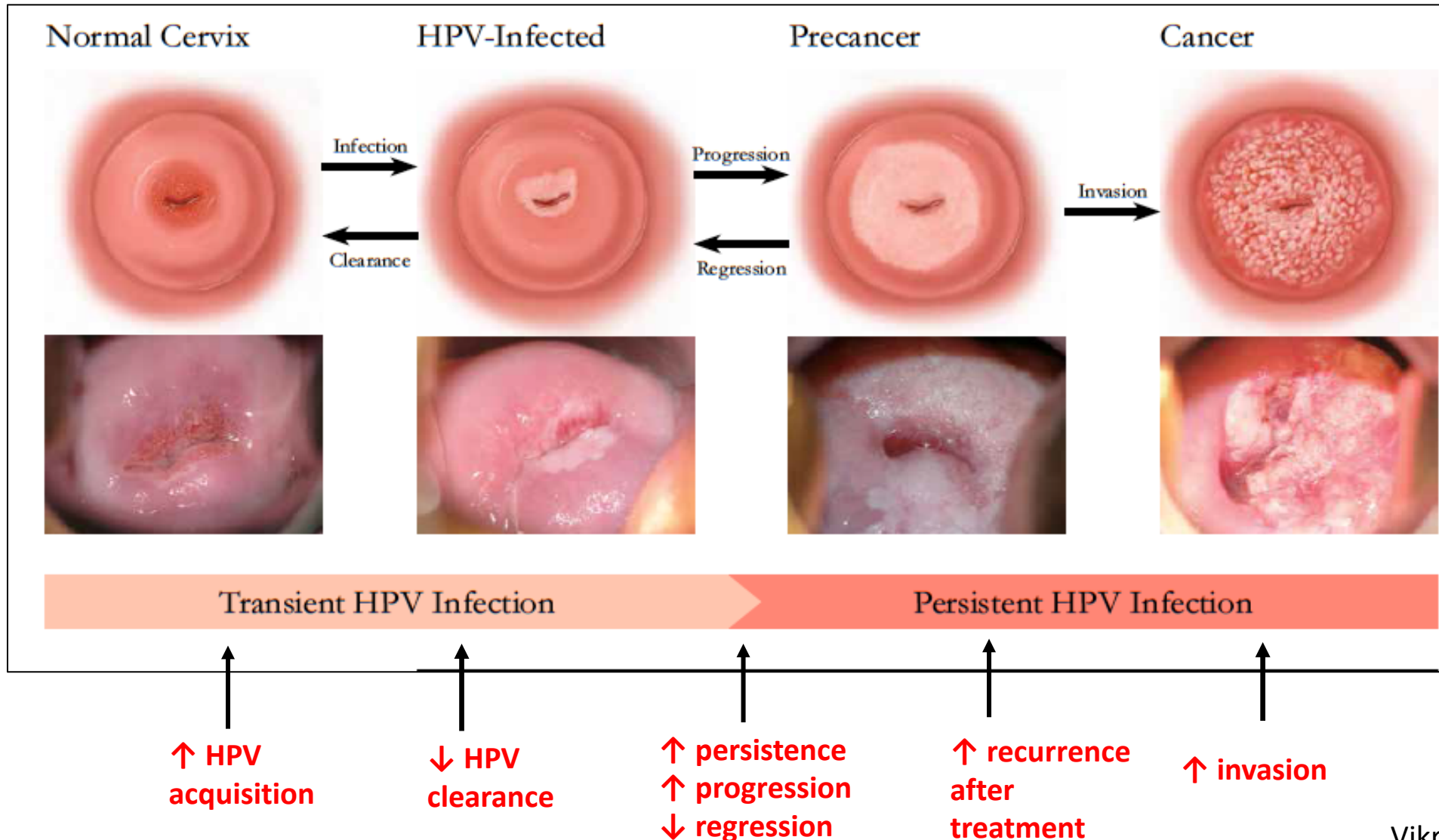


Typical timespan from HPV infection to cancer: 10-30 years

Figure 2.3 The development of cervical cancer. Cervical cancer develops according to the following steps: (1) infection with a cancer-causing HPV type; (2) HPV persistence instead of clearance, (3) development of precancer; (4) development of invasive cancer.³⁹

- **Primary & secondary prevention**

Cervical Cancer in the Context of HIV Infection

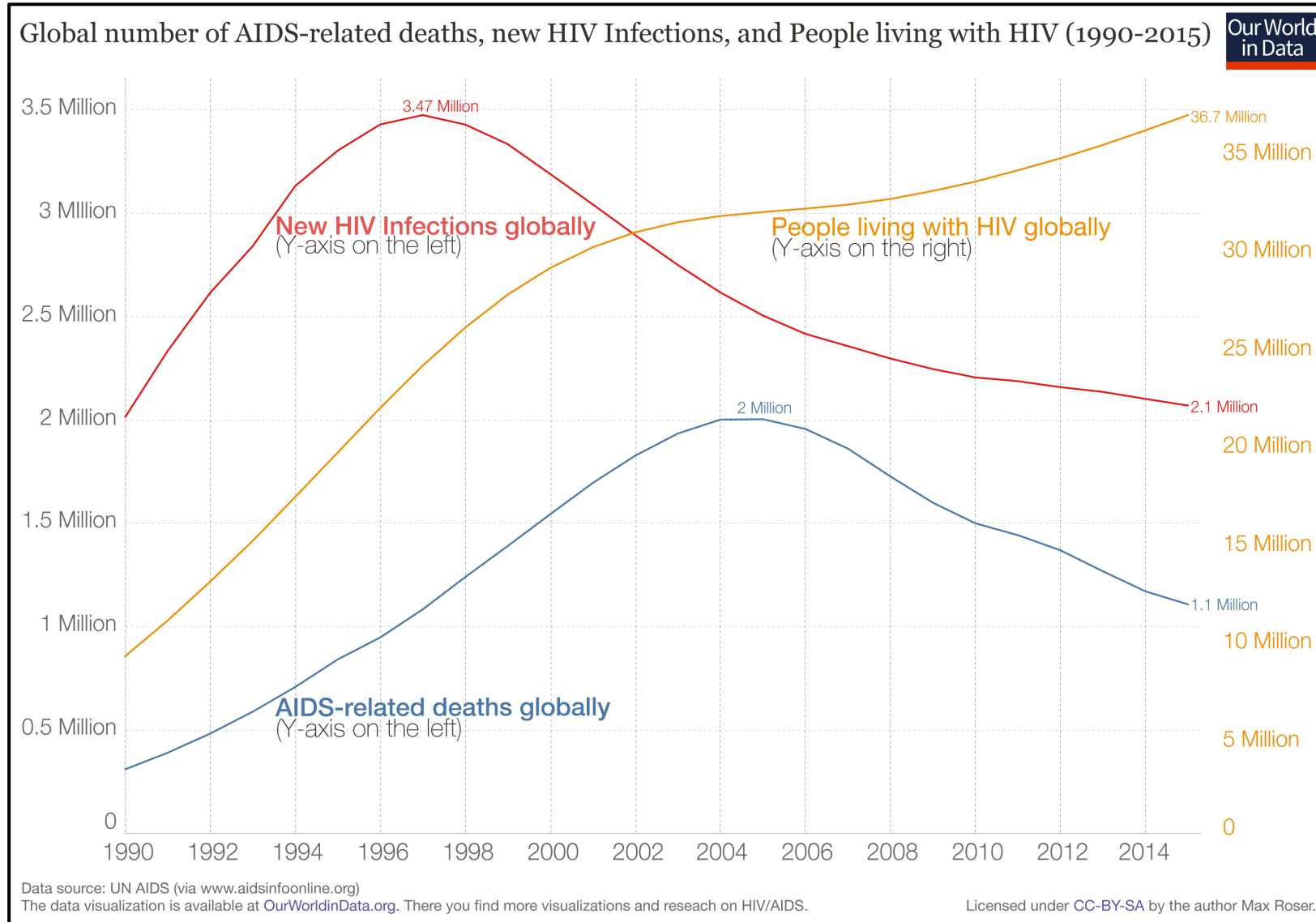


- **5-8x increased risk**
- **Younger age at diagnosis**
- **Aggressive clinical course**

Image: IARC 2013

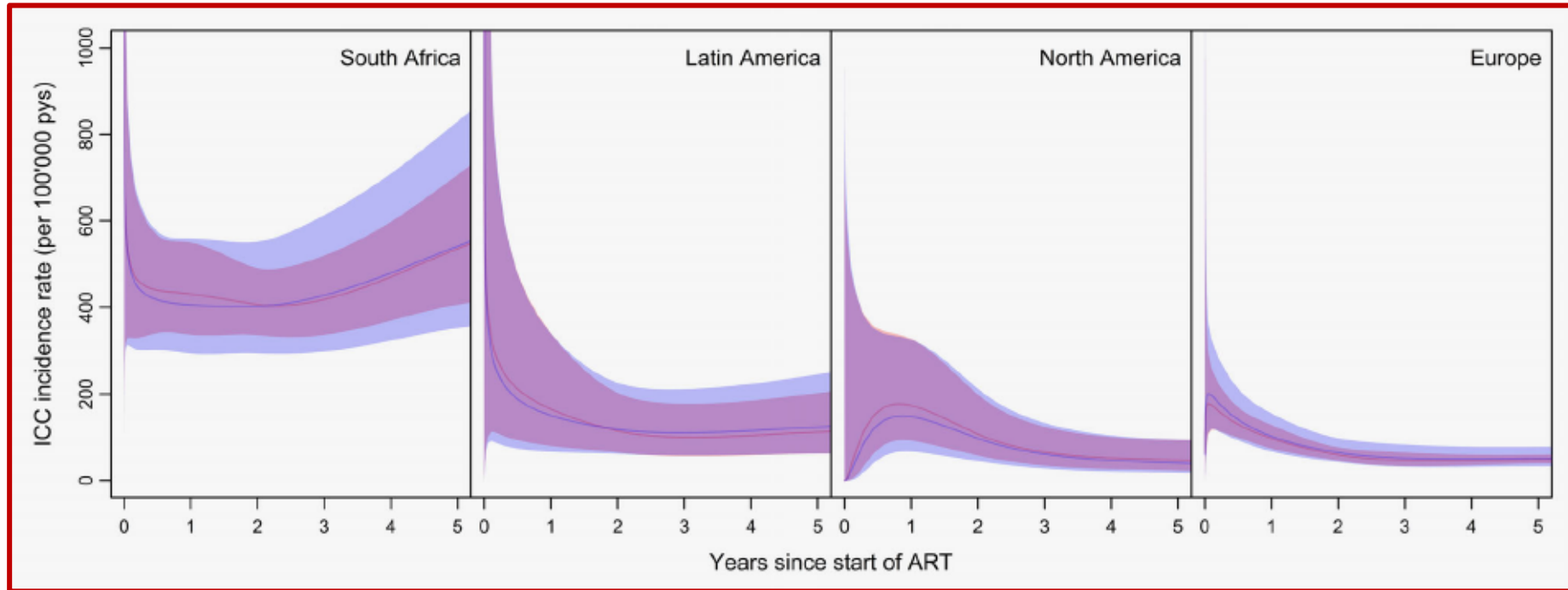
Vikrant Sahasrabuddhe, NCI, 2018

Significant gains made against HIV/AIDS



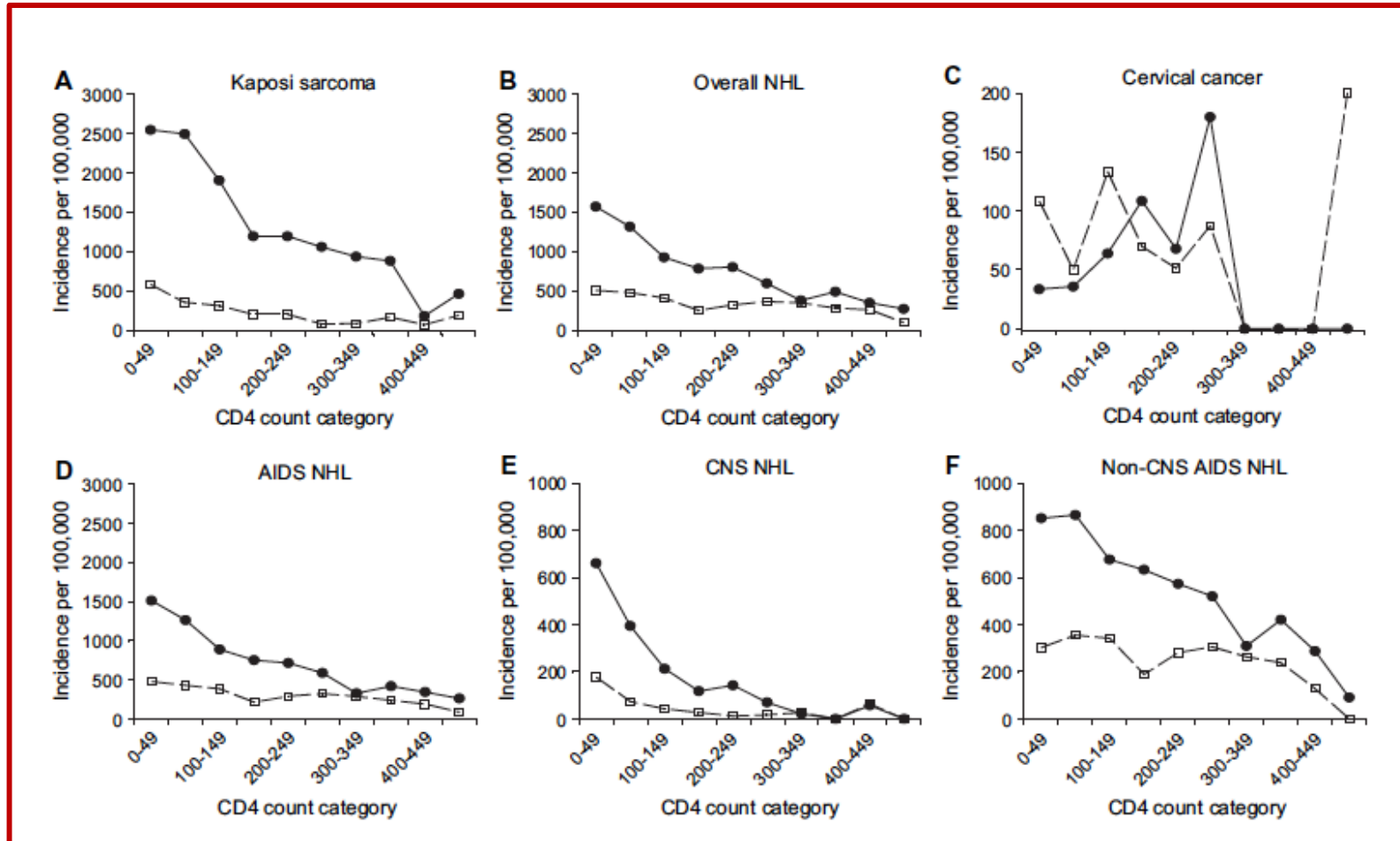
- 18.8 m HIV+ women at risk of cervical cancer
- Need urgent prevention efforts

Is being on ART protective against Cervical Cancer for HIV+ women?



- **South Africa:** Incidence did not change with length of ART
- 11x higher risk than women in Europe
- Lack of screening

Are high CD4 counts protective against Cervical Cancer in HIV+ women?

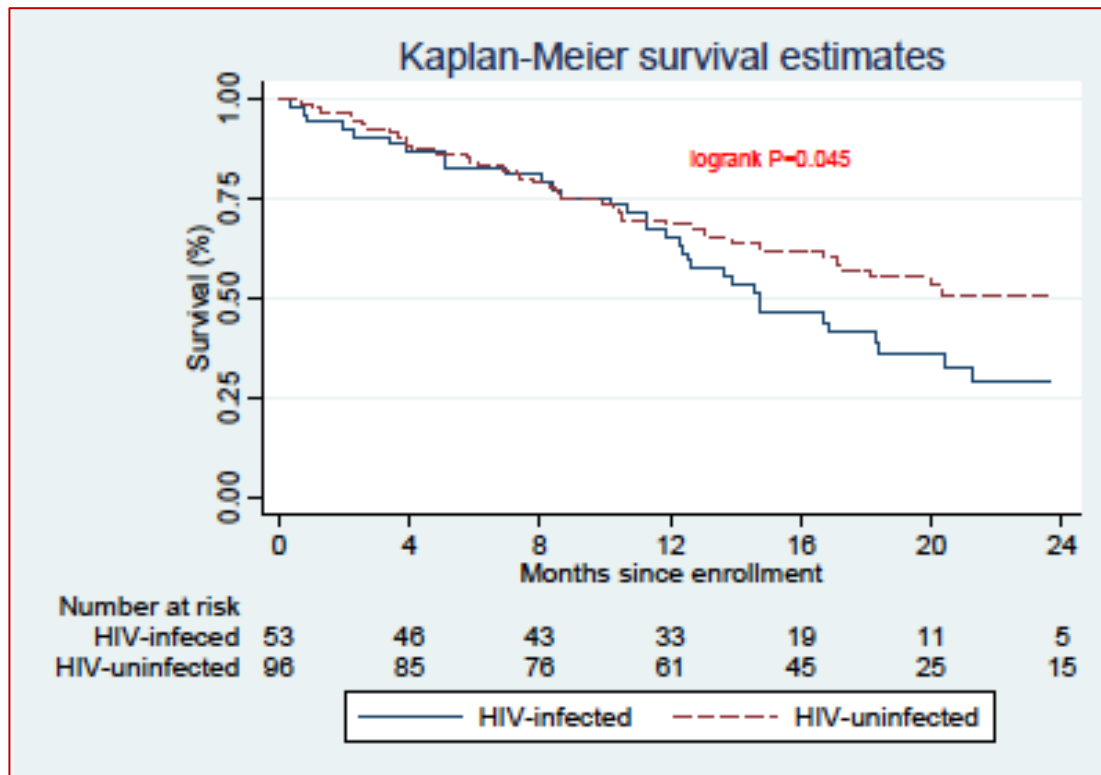


Biggar JNCI 2007

- US data
- Risk of cervical cancer does not correlate with CD4 T-cell count
- Confounding factors

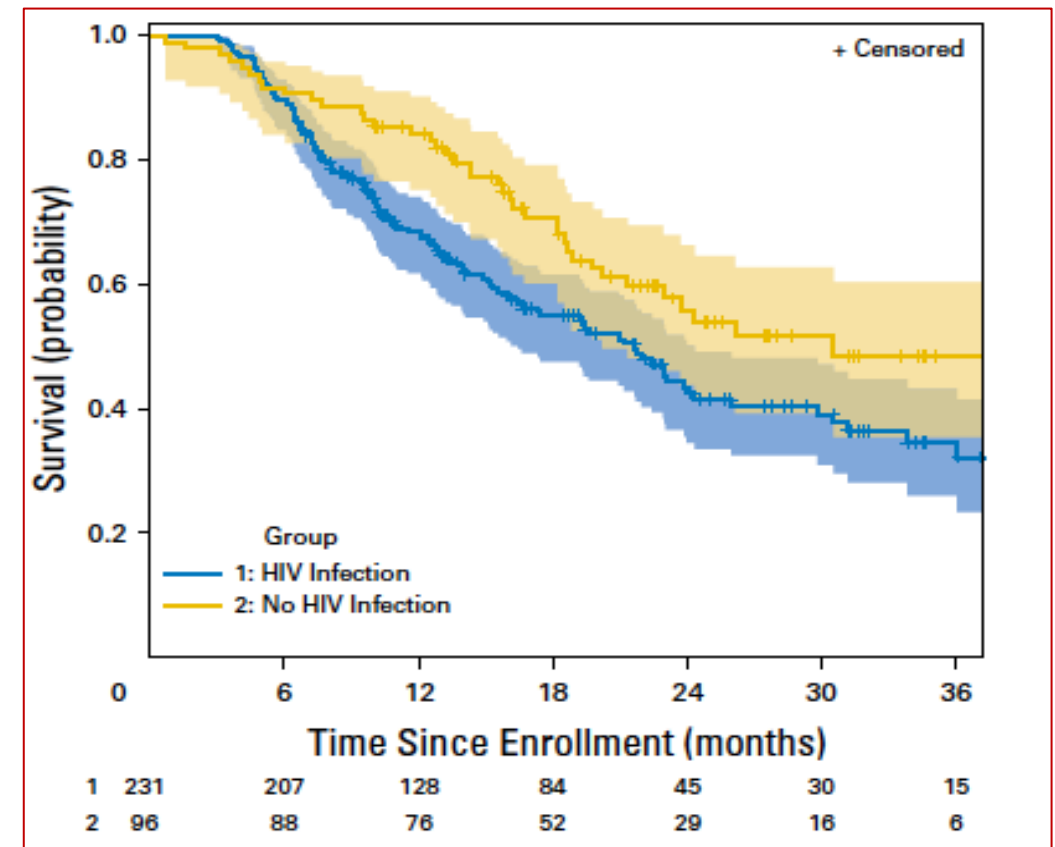
What is survival following a Cervical Cancer diagnosis for HIV+ women?

Uganda



Wu E, Gynecol Oncol Rep 2020

Botswana



Dryden-Peterson JCO 2016

Cervical Cancer prevention among HIV+ women: A moral imperative

“It makes no sense to save a woman’s life from HIV/AIDS, only to let her die from preventable or treatable cervical cancer”

President George W Bush

Emphasis on the Cascade: screening, treatment, follow-up



What is the funding landscape for integration of HIV & Cervical Cancer prevention services?

Global Fund

- \$3.3 million in 15 countries in the 2017-2019 funding cycle
- Examples of interventions funded:
 - Training of doctors and nurses in integrated services
 - Integration of cervical cancer screening of WLHIV in ART clinics, FP clinics and referral hospitals
 - Strengthening linkages RMNCH and HIV

PEPFAR

- \$15.3 million in 2018 (based on data procured from available country operating plans)
- All PEPFAR countries eligible
 - 2018 funding reported in Botswana, Eswatini, Lesotho, Namibia and Zambia
- Screening in all HIV-infected women, treatment of pre-cancerous lesions
- Procurement of associated supplies
- Does not fund screening in HIV-negative women or HPV vaccination.

Unitaid

Clinton Health Access Initiative (CHAI)

- India, Kenya, Malawi, Nigeria, Rwanda, South Africa, Zambia
- \$33 million from 2019-2021
- Focus on screening and treatment with a **priority on development of lower cost screening tools.**

Expertise France, Jhpiego, Union for International Cancer Control

- Cote d'Ivoire, Burkina Faso, Guatemala and the Philippines
- \$24.3 million from 2019-2022
- Introduction and promotion of the best available screen-and-treat tools to prevent cancer in women most at risk, especially those living with HIV

Research funding

National governments

Questions?