

# ELIMINATION OF CERVICAL CANCER IN THE WESTERN PACIFIC:

## An opportunity to strengthen histopathology

Professor Marion Saville AM

Executive Director, Australian Centre for the Prevention of Cervical Cancer

1<sup>st</sup> June 2024



Australian Centre for  
the Prevention of  
Cervical Cancer



VCS  
Pathology



Population  
Health



Digital  
Health

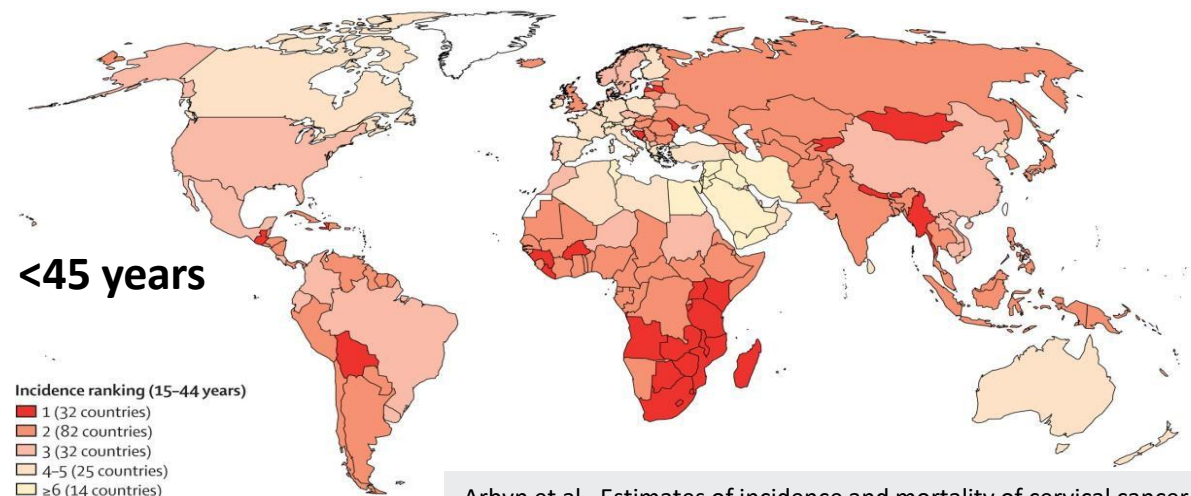
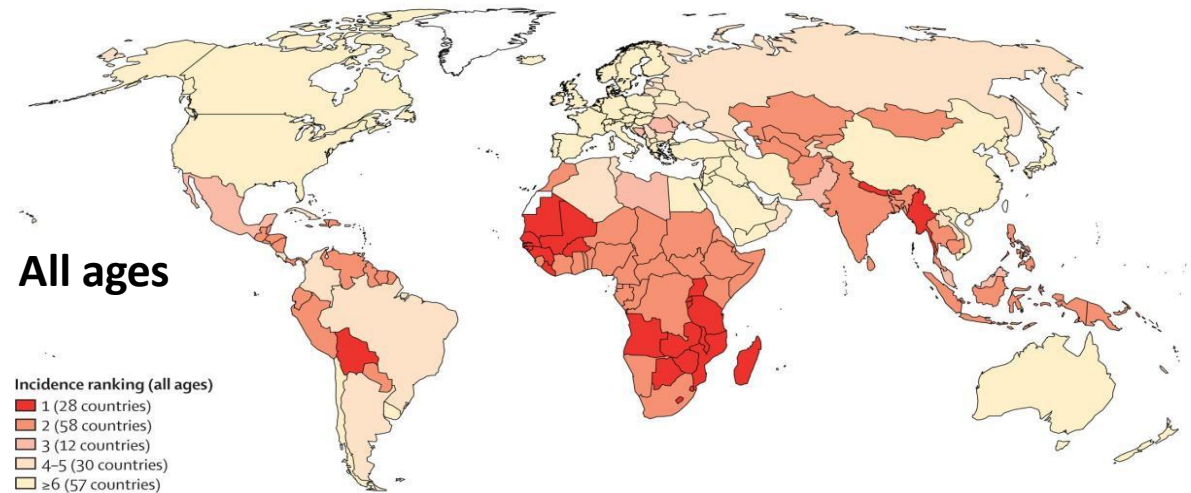


# CERVICAL CANCER:

A case study for global inequity in health



- Ranks in the top three cancers in women in the majority of countries worldwide.
- 90% of the burden is concentrated in LMIC where it is the leading cause of cancer death in women in many countries.
- One quarter of cases occur in the Indo-Pacific.
- Tragically, women are dying at up to 13 times the rate of women in Australia.



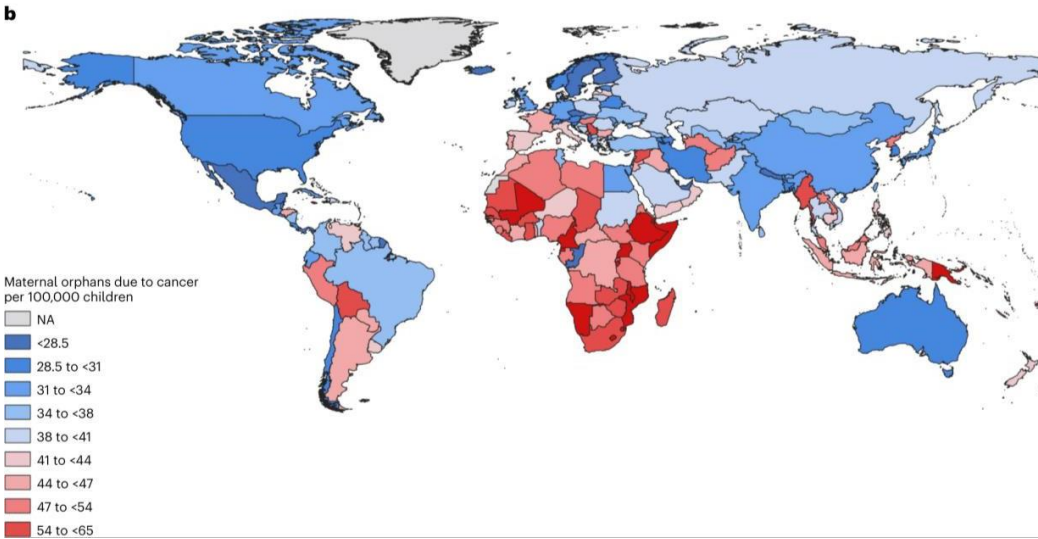
Arbyn et al., Estimates of incidence and mortality of cervical cancer in 2018: a worldwide analysis, *Lancet GH* 2019

# THE INTERGENERATIONAL CONSEQUENCES ARE PROFOUND



## All Cancers

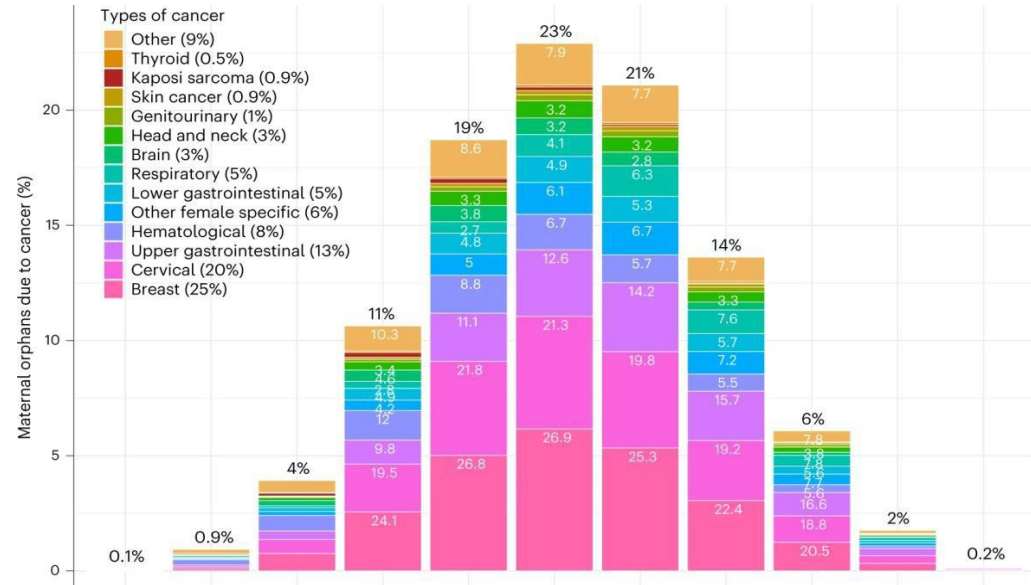
In 2020, 4.4M cancer deaths in women resulted in 1.0M new maternal orphans globally



New maternal orphans due to cancer per 100,000 children in 2020

## Cervical Cancer

Est. 341,000 cervical cancer deaths, resulting in 210,000 new maternal orphans



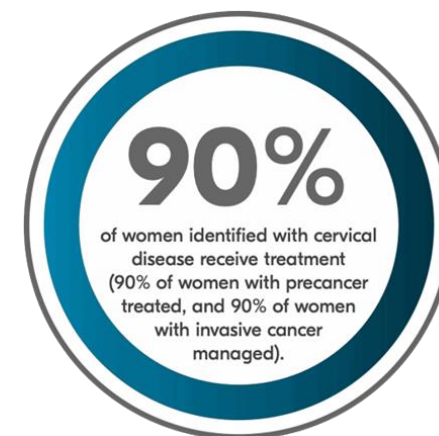
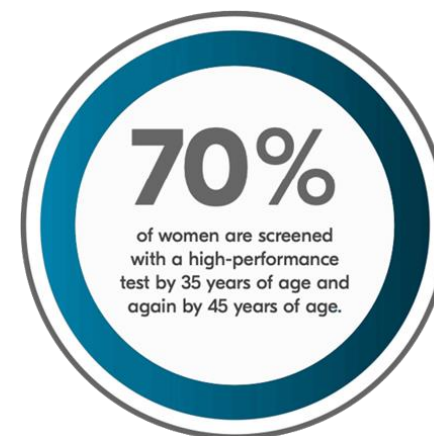
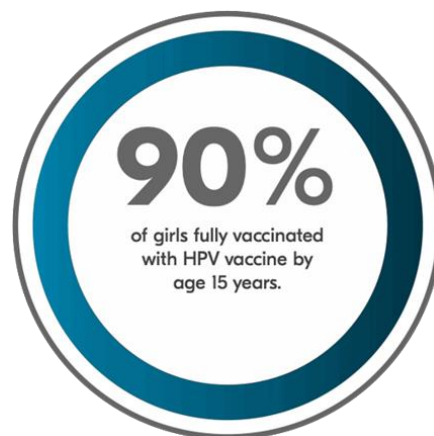
Global distribution of maternal orphans due to cancer by mother's age at time of death and type of cancer

Guida, F., Kidman, R., Ferlay, J. et al. Global and regional estimates of orphans attributed to maternal cancer mortality in 2020. *Nat Med* 28, 2563–2572 (2022).

# WHO CERVICAL CANCER ELIMINATION AGENDA



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



Save the date

FOR THE FIRST TIME EVER,

the world has committed to eliminate a cancer.

EVERYONE IS INVITED TO JOIN THE LAUNCH

Since Dr. Tedros' Call to Action in May 2018, the world has responded: in August 2020, the World Health Assembly passed a resolution calling for elimination of cervical cancer and adopting a strategy to make it happen.

On November 17, following the close of the 73rd World Health Assembly, WHO will mark this historic announcement and officially launch the elimination strategy.

Women who have survived cervical cancer from all regions of the world - women who have fought the disease - will open the event. All around the world, companion events and launch activities will mark a day of action.

The moment has arrived for an ambitious, concerted and inclusive strategy to accelerate eliminating cervical cancer as a public health problem.

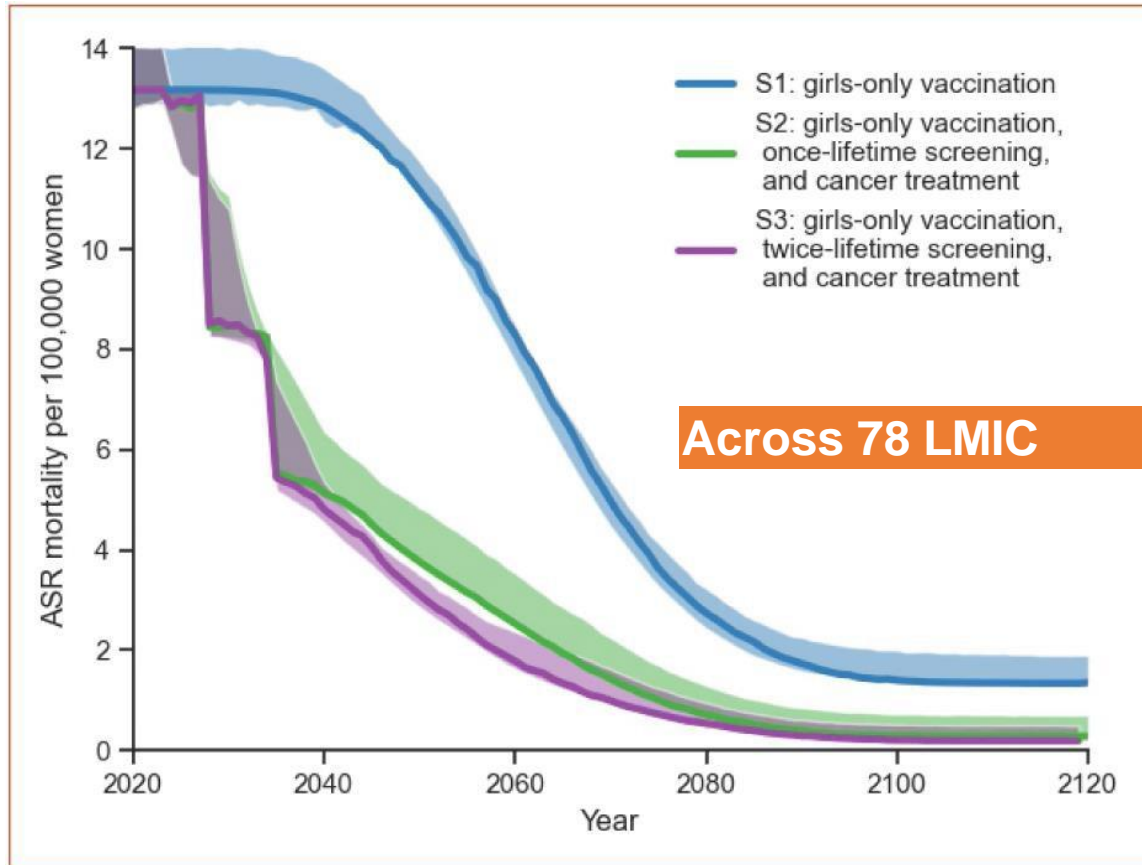
**17th  
November  
2020**  
1430-1600 CET

EVERYONE IS INVITED TO JOIN THE LAUNCH  
**FIND OUT MORE**

**CERVICAL  
CANCER  
FREE  
FUTURE**  
 World Health Organization

# WE MUST ACT NOW,

on all three fronts...



**Combined impact of three pillars results in both short- and longer- term population-wide benefits:**

300,000-400,000 deaths averted by 2030

14.6M deaths averted by 2070

62.6M deaths averted over the course of the century

Canfell K/Kim JJ/Brisson M et al., Mortality impact of achieving WHO cervical cancer elimination targets: a comparative modelling analysis in 78 low-income and lower-middle-income countries Lancet Jan 30 2020

# FUNDAMENTAL RESEARCH



We conducted the first real-world evaluation of a fully integrated point-of-care HPV self-collect, test, and treat strategy for same-day cervical screening in a LMIC and found it to be **effective, acceptable, and safe** when implemented at scale in primary health-care facilities in Papua New Guinea. Our findings support the introduction and scale-up of HPV screening and treatment for the control and elimination of cervical cancer in LMICs, as recommended by WHO

**Source:** Valley, A. J., Saville, M., Badman, S. G., Gabuzzi, J., Bolnga, J., Mola, G. D., ... & Kaldor, J. M. (2022). Point-of-care HPV DNA testing of self-collected specimens and same-day thermal ablation for the early detection and treatment of cervical pre-cancer in women in Papua New Guinea: a prospective, single-arm intervention trial (HPV-STAT). *The Lancet Global Health*, 10(9), e1336-e1346

## Point-of-care HPV DNA testing of self-collected specimens and same-day thermal ablation for the early detection and treatment of cervical pre-cancer in women in Papua New Guinea: a prospective, single-arm intervention trial (HPV-STAT)

Andrew J B Vallely, Marion Saville, Steven G Badman, Josephine Gabuzzi, John Bolnga, Glen D L Mola, Joseph Kuk, Malts Wai, Gloria Munnill, Suzanne M Garland, Julia M L Brotherton, Angela Kelly-Hanku, Christopher Morgan, Pamela J Toliman, Zure Kombati, Grace Karwigwa, Dely Babona, Grace Tan, Kate T Simms, Alyssa M Cornall, Sepehr N Tabrizi, Handan Wand, Rebecca Guy, Karen Canfell, John M Kaldor

### Summary

**Background** WHO recommends human papillomavirus (HPV) testing and same-day treatment for cervical screening in low-income and middle-income countries (LMICs); however, few published data exist on the validity of the strategy. We aimed to evaluate the clinical performance, treatment completion rates, adverse events profile, and acceptability of a fully integrated strategy, comprising point-of-care HPV DNA testing of self-collected specimens and same-day thermal ablation, for screening of cervical cancer in women in Papua New Guinea.

**Methods** HPV-STAT was a large-scale, prospective, single-arm intervention trial conducted at two clinical sites in Papua New Guinea. Cervical screening clinics with an on-site consultant gynaecologist were selected in consultation with national and provincial health authorities, church health services, and local stakeholders. Eligible participants were women aged 30–59 years attending cervical screening services at the two clinics, who were willing to comply with study procedures and able to provide written informed consent. Women self-collected vaginal specimens for point-of-care GeneXpert testing (Cepheid, Sunnyvale, CA, USA) for oncogenic HPV types. Women testing positive for HPV underwent pelvic examination followed by same-day thermal ablation or referral for gynaecology review. All HPV-positive women and a 15% random sample of HPV-negative women provided a clinician-collected cervical specimen for liquid-based cytology. The primary outcome was clinical performance (ie, sensitivity, specificity, positive predictive value [PPV], and negative predictive value [NPV]) of the strategy for the detection of high-grade squamous intraepithelial lesion (HSIL) or worse. This trial is registered with ISRCTN, ISRCTN13476702.

**Findings** Between June 5, 2018, and Jan 6, 2020, we recruited 4285 women, 3638 (84.9%) of whom tested negative for HPV and 647 (15.1%) tested positive for one or more oncogenic HPV type. Sensitivity of the algorithm to detect HSIL or worse was 85.4% (95% CI 81.0–89.6), with specificity 89.6% (88.6–90.6), PPV 35.2% (31.6–39.0), and NPV 98.9% (98.6–99.2). Among HPV-positive women, 602 (93.0%) received same-day thermal ablation and 42 (6.5%) were referred for gynaecology review, 37 (88.1%) of whom attended. Acceptability was high among both HPV-positive and HPV-negative women. Among the 329 HPV-positive women who attended a 3-month follow-up visit, 51 (15.5%) reported mild adverse symptoms that resolved in all cases by the follow-up visit. There were no serious adverse events.

**Interpretation** We conducted the first real-world evaluation of a fully integrated point-of-care HPV self-collect, test, and treat strategy for same-day cervical screening in a LMIC and found it to be effective, acceptable, and safe when implemented at scale in primary health-care facilities in Papua New Guinea. Our findings support the introduction and scale-up of HPV screening and treatment for the control and elimination of cervical cancer in LMICs, as recommended by WHO.

**Funding** Australian National Health and Medical Research Council.

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This online publication has been corrected. The corrected version first appeared at [thelancet.com/lancetgh](https://www.thelancet.com/lancetgh) on August 25, 2022.

See Comment page e1226

Papua New Guinea Institute of Medical Research, Goroka, Papua New Guinea

(Prof A J B Vallely PhD,

J Gabuzzi BSc, J Bolnga PhD,

G Munnill BSc, A Kelly-Hanku PhD,

P J Toliman PhD); Kirby Institute for Infection and Immunity in Society (Prof A J B Vallely, Steven G Badman PhD,

A Kelly-Hanku, H Wand PhD,

Prof R Guy PhD,

Prof J M Kaldor PhD) and Prince of Wales Clinical School (Prof F Canfell PhD), UNSW Sydney, Kensington, NSW, Australia; VCS Foundation, Melbourne, VIC, Australia (Prof M Saville PhD,

Prof J M L Brotherton PhD,

G Tan BSc); Department of Obstetrics and Gynaecology, Modilon General Hospital, Madang, Papua New Guinea (J Gabuzzi, J Bolnga); School of Medicine and Health Sciences, University of Papua New Guinea, Port Moresby, Papua New Guinea (Prof G D L Mola MBBS); Department of Obstetrics and

# COLLABORATIVE CERVICAL CANCER PROGRAM ESTABLISHED IN THE WESTERN PACIFIC THROUGH LANDMARK INVESTMENT

*The new program aims to deliver life-saving impacts in Papua New Guinea and Vanuatu.*



A mother in Port Moresby, Papua New Guinea, sitting with her daughter. Photo Credit: Clyde Lovuru / EyeEm via Getty Images.



# POINT-OF-CARE

HPV self-collect, test and treat and register



**1** Self-collect

**2** Test

**3** Treat

**4** Register

# canSCREEN® OVERVIEW



Designed and architected for the management of population health programs

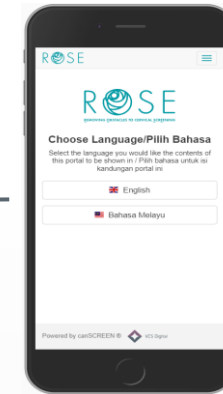
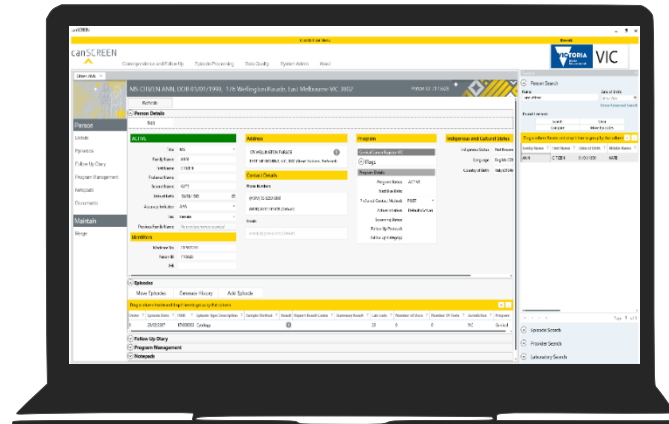
Supports population health screening and prevention at local, regional, and national levels

Distributes communication via Digital Channels



Our canSCREEN® platform, with the support of our Partners, has won the Microsoft Australia Partner Award (MAPA) under the category 'Technology for Social Impact Award' from almost 100 nominations across 20 different categories, 'recognizing a Partner creating and deploying a cutting-edge technology'.

## canSCREEN



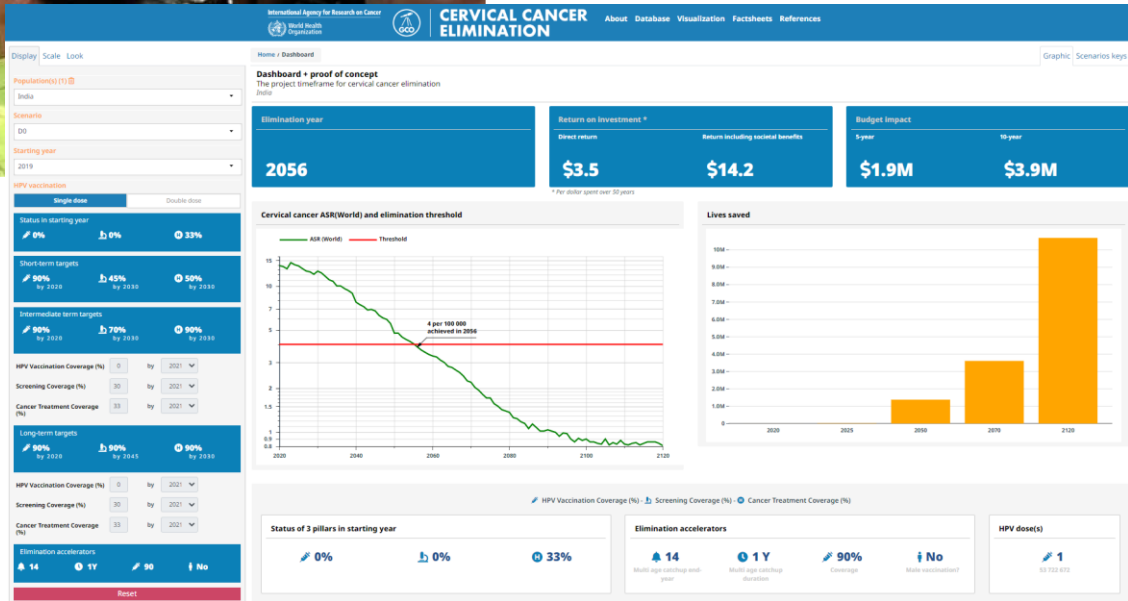
Provides Point of Care interfaces that are configurable to suit all abilities and environments

Stratifies risk and categorises populations to prioritise high risk participants



## Eliminate Cervical Cancer in Vanuatu Launch October 2023

## Elimination Planning Tool



## Rural Outreach: an unprecedented response



**MINISTRY OF HEALTH**  
**GOVERNMENT OF VANUATU**



# CERVICAL CANCER ELIMINATION

in Pacific Island Countries:

Karen Canfell, Deborah Bateson, Andrew Vallely, Marion Saville, Anne Stuart, Kristine McCartney, Azedah Baghaki, Vanessa Price, Telma Costa, Tim Balshaw & our colleagues throughout the Indo-Pacific



EP&CC

ELIMINATION PARTNERSHIP IN THE  
INDO-PACIFIC FOR CERVICAL CANCER



# ELIMINATION PARTNERSHIP

in the Indo-Pacific for Cervical Cancer (EPICC)



- Australian Department of Foreign Affairs and Trade 5- Year Initiative under the Partnerships for a Healthy Region scheme.
- Supporting cervical cancer elimination in the region and improved, sustainable health outcomes and equity to meet the needs of partner countries.



EPICC is supported by the Australian Government through the Partnerships for a Healthy Region initiative

EPICC has a core structure of:

Six complementary Priority Areas of Work, designed to provide support across all WHO elimination pillars

Gender equity, disability and social inclusion (GEDSI) at the core of all activities





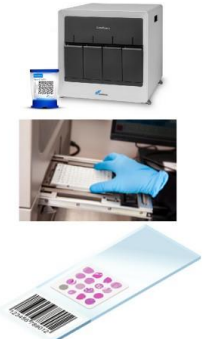

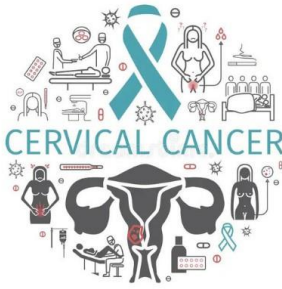

EPICC is supported by the Australian Government through the Partnerships for a Healthy Region initiative

# Sustainable Tiered Approach

EPICC sets out a four-tiered country approach to identifying and meeting policy objectives essential to the development of sustainable cervical cancer control programs. Partner countries (Papua New Guinea, Malaysia, Timor-Leste, Solomon Islands, Vanuatu, Tuvalu, Fiji and Nauru) are tiered according to readiness, gaps and priorities in relation to end-of-program outcomes

TIER 4	TIER 3	TIER 2	TIER 1
Advance co-design, policy development, and strategic planning to support readiness for future implementation	Implementation of demonstration programs for future scale-up to advance co-design, policy development, and strategic planning	Sub-national expansion of current programs to support national readiness	Support establishment of national sustained elimination programs
Any Indo-Pacific country potentially in scope	Countries in scope: Timor-Leste and Solomon Islands	Countries in scope: Malaysia, Fiji and Papua New Guinea	Countries in scope: Tuvalu, Vanuatu and Nauru

## PRIORITY AREAS OF WORK

<p><b>1</b></p> <p>Strengthening primary prevention through HPV vaccination support</p> 	<p><b>2</b></p> <p>Secondary prevention of cervical cancer through HPV screening and treatment for precancer</p> 	<p><b>3</b></p> <p>Laboratory strengthening for cervical cancer screening and early treatment</p> 	<p><b>4</b></p> <p>canSCREEN™ Digital Health Registry - data for decision making and strengthened models of care</p> 	<p><b>5</b></p> <p>Supporting cervical cancer management (treatment and palliative care)</p> 	<p><b>6</b></p> <p>Policy and modelling support across all pillars of cervical cancer elimination pathway</p> 
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# HISTOPATHOLOGY STRENGTHENING



Work with DFAT funded PHR partners mSupply and BES to improve

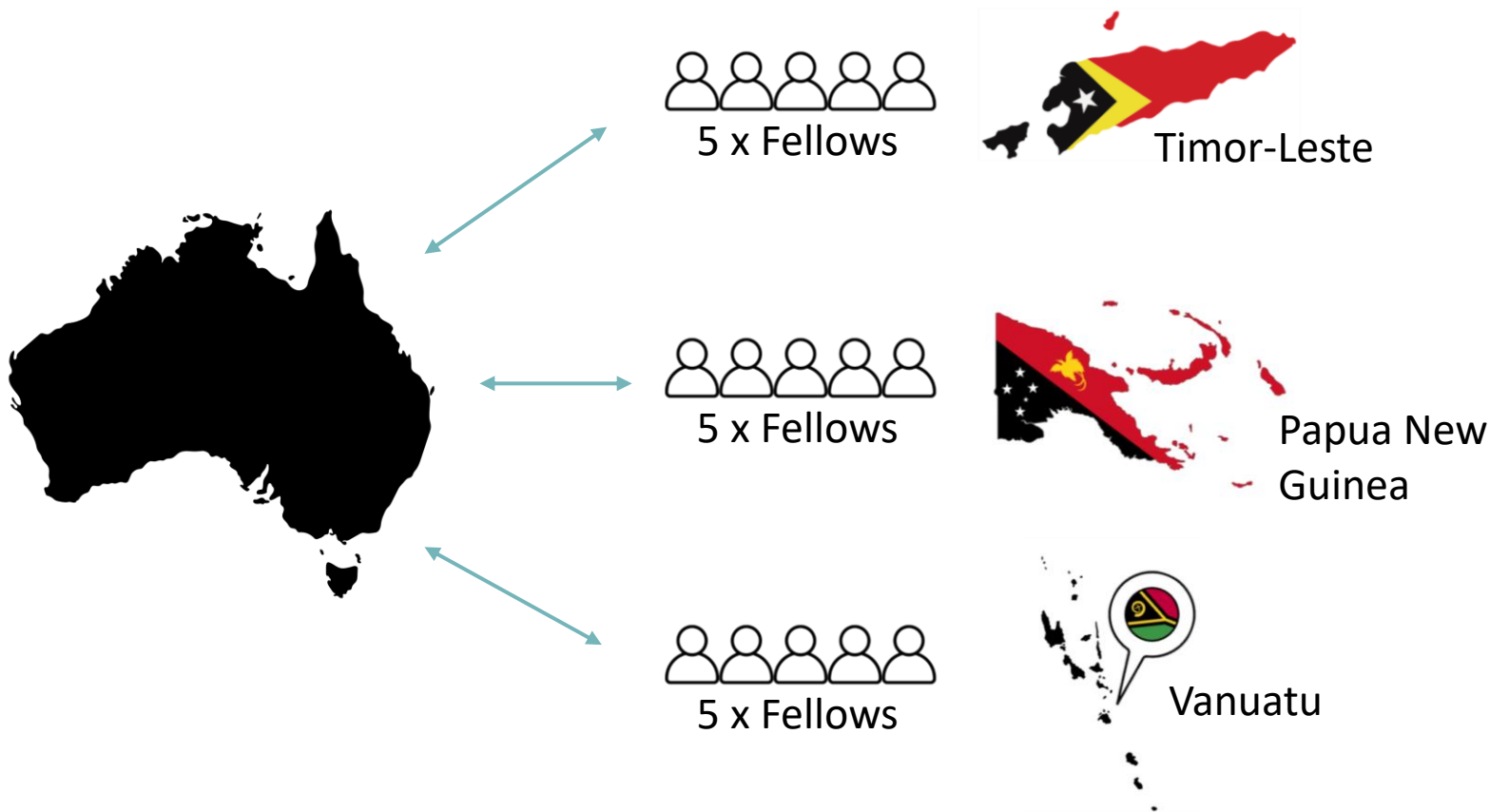
- Procurement and maintenance of equipment
- Stock management of consumables



# AUSTRALIAN FELLOWSHIP AWARDS:



Capacity Building for Elimination Partnership in the Indo-Pacific for Cervical Cancer



15 Fellows across 3 countries

2-week multidisciplinary training program in Sydney, Australia

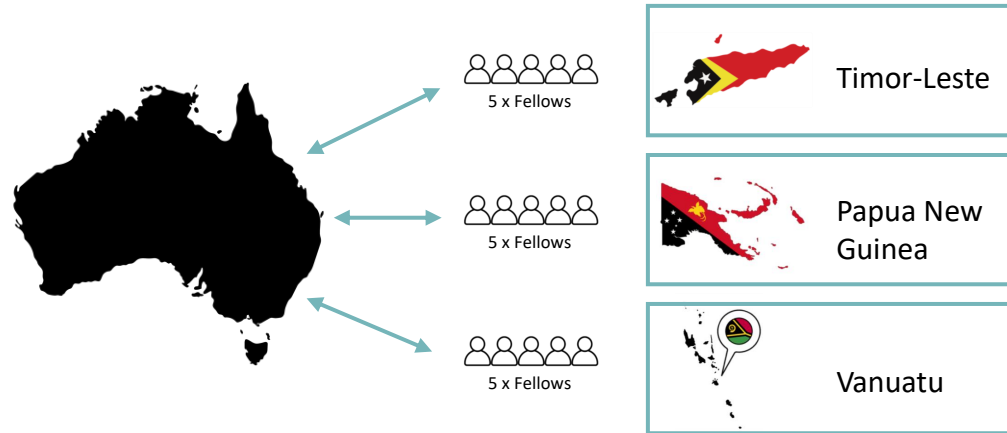
1-week multidisciplinary training program in their own country

6 months of virtual mentoring support, and the creation of communities of practice to support south-south learning and sustainability

Final work presentation and co-authorship of publications

# AUSTRALIAN FELLOWSHIP AWARDS:

Capacity Building for Elimination Partnership in the Indo-Pacific for Cervical Cancer

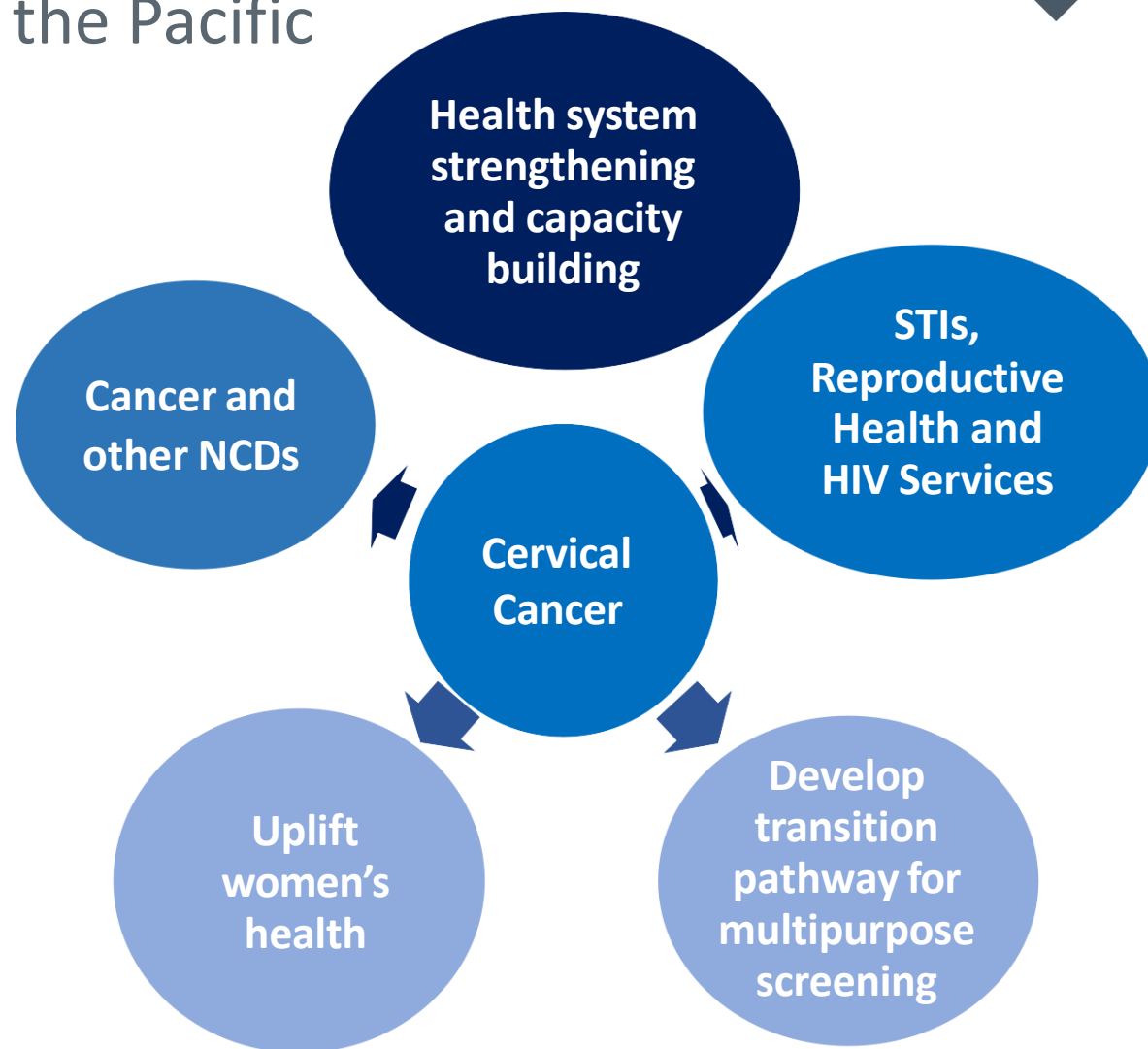


## Fellowship Outcomes

- 1 Enhanced Institutional Capacity
- 2 Management of Cervical Precancers
- 3 Management of Invasive Cancers
- 4 Cost-Effective Histopathology Services
- 5 Sustainable Workforce Development and Training
- 6 Sustained Collaboration

# BROADER IMPACT

and basis for uplifting women's health in the Pacific





We acknowledge and thank the PIC leaders who are leading this critical agenda, and the women, families and communities impacted by cervical cancer.

*"As a single mother, I am very grateful that I get to find out earlier so that I can get treatment in time and I can spend time with kids; see them grow in the future as some of them are still really small."*

**Floriana, Port Villa, Vanuatu**

(Photo credit, Kirby Institute, UNSW, Oct 2023)

