



World Cancer Leaders' Summit

Cancer and

Universal Health Coverage

15-17 October 2019
Nur-Sultan, Kazakhstan



Making the national investment case for cervical cancer elimination



World Cancer
Leaders' Summit

Session goals

Learn about the WHO cervical cancer elimination strategy

- The rationale and timetable to launch
- Tools available to develop a costed strategy

Discuss making the national case for investment and taking action

Making the national investment case for cervical cancer elimination

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Disclosures: none



World Cancer
Leaders' Summit

WHO Director Generals call to action

21st May 2018

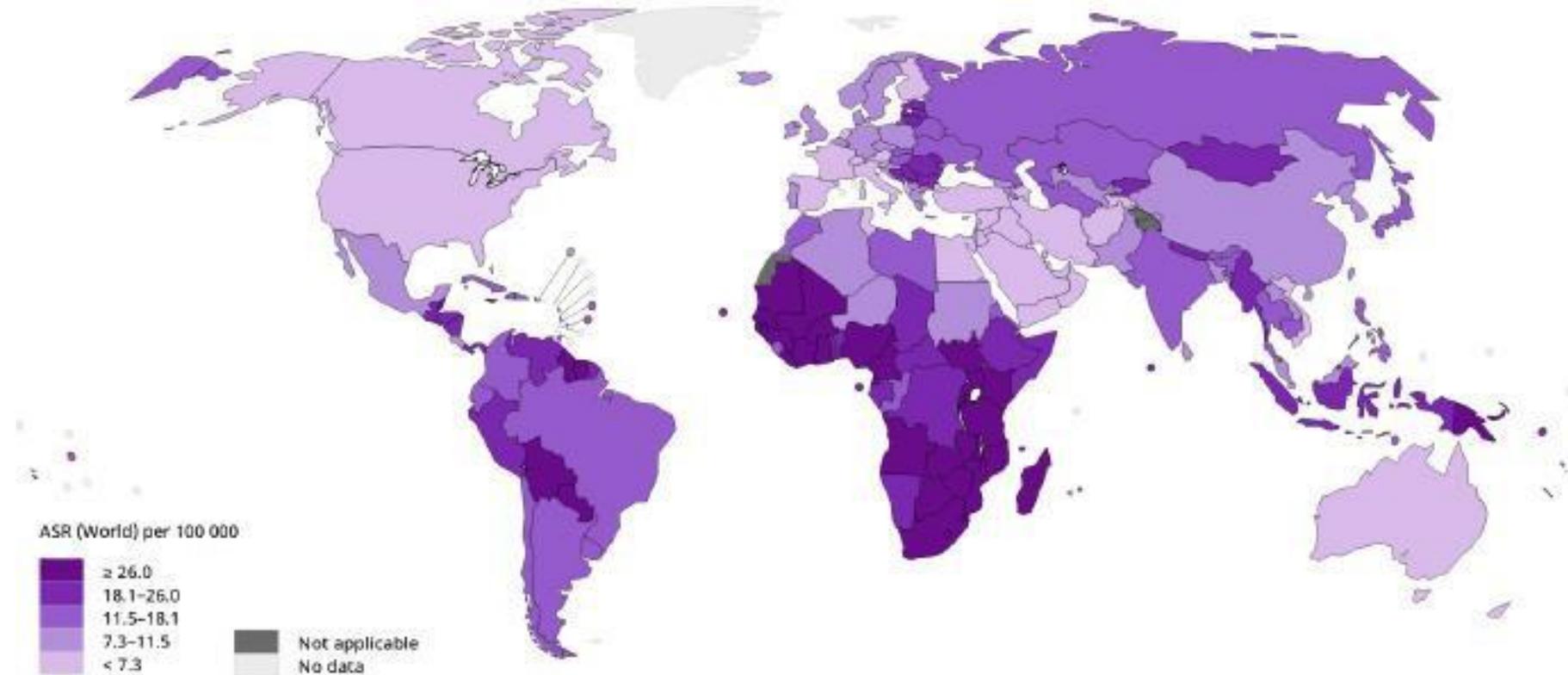


International Agency for Research on Cancer



The Growing Inequities of Cervical Cancer Between and within countries

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

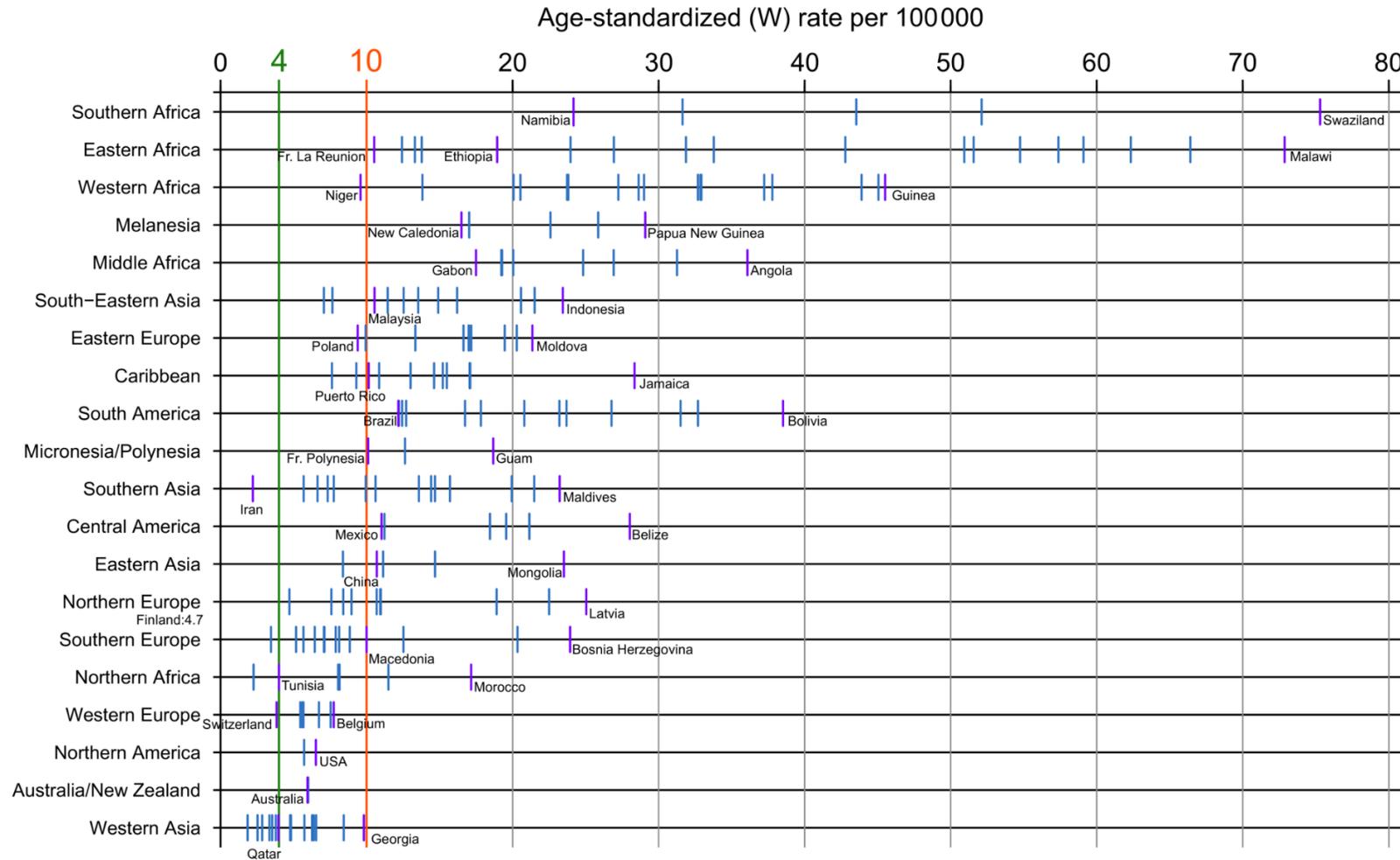


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Data sources: GLOBOCAN 2018
Graph production: IARC
(<http://gco.iarc.fr/today>)
World Health Organization

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Variability in burden and health systems readiness to respond to elimination



144th WHO Executive Board – 30 January 2019

More than 70 countries sponsored the decision for WHO secretariat to develop a **Global Strategy towards the Elimination of Cervical Cancer**

Due to be adopted at World Health Assembly in May 2020, with accompanying resolution



The 2020-2030 global strategy

VISION: A World Free of Cervical Cancer

THRESHOLD: < 4 cases of cervical cancer per 100,000 woman-years

2030 CONTROL TARGETS

90%

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



70%

of women screened with an HPV test at 35 and 45 years of age



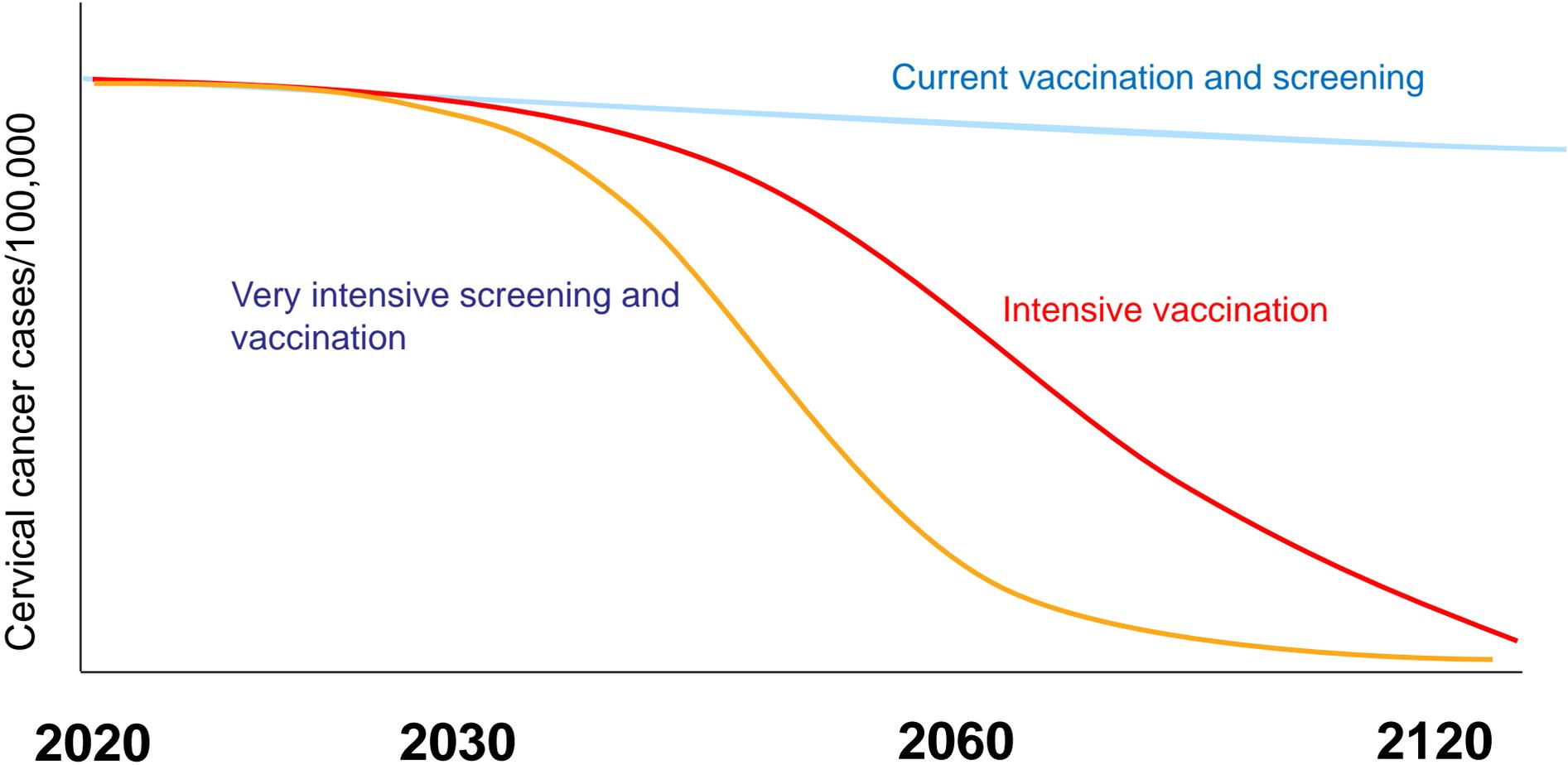
90%

of women identified with cervical disease receive treatment for precancerous lesions or invasive cancer



SDG 2030: Target 3.4 – 30% reduction in mortality from cervical cancer

Cervical Cancer Elimination: Conceptual Framework



Opportunities for leadership in driving equitable access to cervical cancer elimination services

Lifecourse approach

Childhood vaccine

Adolescence sexual health education

Women, screening and early detection

Diagnosis, treatment and palliative care

- Building the next generation with cancer health literacy
- Driving a mindset change – engagement with the health system for prevention and maintenance of health, NOT just when you are sick

Integration of services

Particularly at primary health care level, aligning well with the push of Universal Health Coverage

HIV-AIDs; SxRH child and adolescent health; laboratory networks; immunisation; NCDs, data and health information systems

- Example: Adding cervical health screen to reproductive health services – good uptake of screening, but also increase in use of reproductive health services also.

Strengthening the workforce

Scaling services needs clear planning to future proof services.

- Articulation of roles and activities at all levels of the health system
- Build the case for cancer competent community health workers
- Develop the role of nursing
- Incentives to provide the national reach

Funding and social protection

- Social protection for prevention, diagnosis and treatment
- Showcase the role of surgery and radiotherapy, not just cancer medicines
- Global fund does support country plans including cx strategies
- Global financing facility /RH
- Show the returns in the short and mid-term on the way to elimination

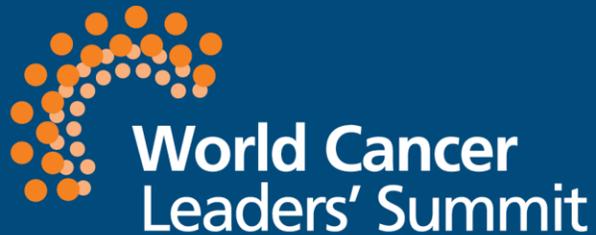
Eliminating Cervical Cancer

Supporting Governments to Reach Targets

André Ibawi

Cancer control officer

World Health Organization



Cervical Cancer: Catalyzing Action

'Best buys': effective interventions with cost effectiveness analysis (CEA) ≤ \$100 per DALY averted in LMICs

Vaccination against human papillomavirus (2 doses) of 9–13 year old girls

Prevention of cervical cancer by screening women aged 30–49, either through:

2005 WHA Cancer resolution

2011 NCD Global Action Plan

● Political Commitment → Accelerated action toward clear targets

Having examined the report on the prevention and control of cancer;²

and other recommended interventions for the prevention and control of noncommunicable diseases

g (visual

What to do → *How to do it*

women effective interventions for early detection are available and not yet widely used, and that the control of cervical cancer will contribute to the attainment of international development goals and targets related to reproductive health;

Treatment of cervical cancer stages I and II with either surgery or radiotherapy or chemotherapy

Best buy

ional

(6) to encourage the scientific research necessary to increase knowledge about the burden and causes of human cancer, giving priority to tumours, such as cervical and oral cancer, that have a high incidence in low-resource settings and are amenable to cost-effective interventions;

Formulating Plan

Menu of Options for Operational Plan in Country X

National plans & priorities

- Develop comprehensive plan
- Establish governance mchn
- Set guidelines
- Strengthen cancer registries
- Generate cost/budget
- Invest in research

Delivery of services

- Develop programmes to ↑coverage
- Improve referral mechn
- ⑩ ↑access to morphine

Commodities & procurement

- Address procurement mechn for HPV test
- Evaluating pricing approach

Communities of practice, training

- Build health workforce for screening, treatment, PC
- Promote participation in CoP

Advocacy & communications

- Engage, identify & coordinate civil society
- Strengthen comms, awareness & outreach



Steps:

- (1) Analyze situation,
- (2) Estimate unmet need
- (3) Formulate & cost national plan, engage stakeholders**
- (4) Monitoring, evaluation & research



National plans & priorities

- Develop comprehensive plan
- Allocate budget

Delivery of services

- Strengthen PCP to ↑coverage, particularly vulnerable groups
- ⑩ ↑access to morphine

Commodities & procurement

- Strengthen HPV test procurement

Communities of practice, training

- Build health workforce for screening

Advocacy & communications

- Engage, identify & coordinate civil society
- Strengthen comms, awareness & outreach

Two tools are being used to carry out costing and budget impact analyses: C4P and OneHealth

C4P	OHT
<p>The CxCa Prevention and Costing tool (C4P) was developed by the WHO IVB group specifically to assist low and middle income countries in planning cervical cancer control strategies.</p> <p>The tool has been built in MS Excel and consists of two independent modules: one for HPV Vaccination, and one for CxCa screening and treatment (incl. tertiary care)</p>	<p>The OneHealth Tool is a software tool designed to inform national strategic health planning in low- and middle-income countries.</p> <p>The development of the OneHealth tool is overseen by the UN InterAgency Working Group on Costing (IAWG-Costing). Avenir Health developed the software.</p>

Either tool can be used, depending on in-country availability of data, project management resources, and prior experience with the tools

Country	Selected Tool	Country	Selected Tool
Nigeria	C4P	Morocco	TBD
Zambia	C4P	Myanmar	OHT
Madagascar	C4P	Mongolia	OHT
Uzbekistan	C4P	Trinidad & Tobago	OHT
Tanzania	C4P		

Cervical Cancer Prevention and Control (C4P)



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Global Vaccine Action Plan

WHO policy recommendations

National programmes and systems

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Resource materials

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WHO Cervical Cancer Prevention and Control Costing Tool (C4P)

Background

↓ Demo User guide pdf, 1.47Mb

↓ C4P 5-Year Scale-Up User Guide pdf, 1.82Mb

↓ Guide de l'utilisateur de l'outil C4P - français pdf, 4.41Mb

↓ C4P Demo Tool xlsx, 1.26Mb

↓ C4P 5-year Scale-Up Tool xlsx, 2.88Mb

WHO IVB has developed a generic costing and planning tool for cervical cancer prevention and control. The WHO Cervical Cancer Prevention and Costing (C4P) tool has been developed specifically to assist low and middle income countries (LMICs) in planning cervical cancer control strategies. The tool has been built in MS Excel and consists of two independent modules:

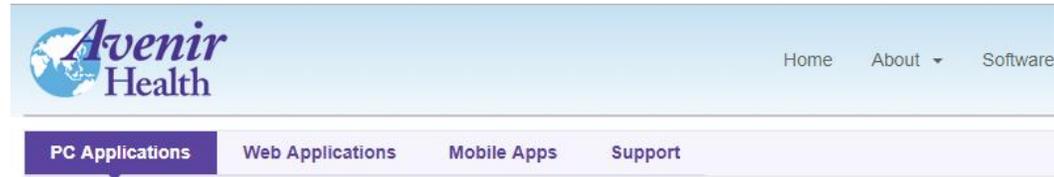
1. HPV (human papillomavirus) vaccination of 9-13 year old girls.
2. Cervical cancer screening and treatment for women.

Last update:
25 July 2018 11:13 CEST

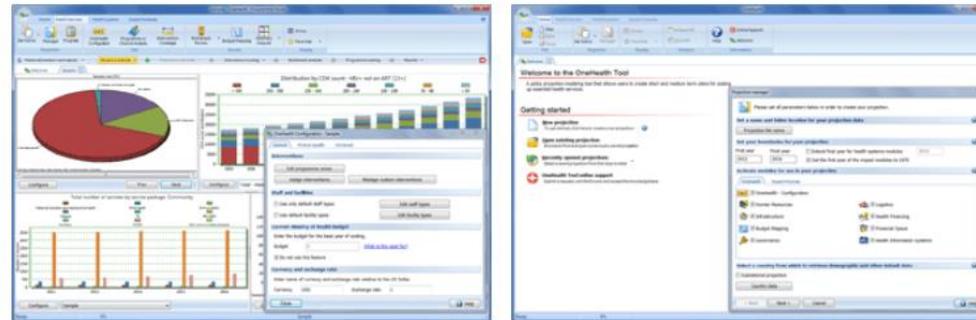
1. Background
2. Gavi support

http://www.who.int/immunization/diseases/hpv/cervical_cancer_costing_tool/en/index1.html

OneHealth



OHT OneHealth Tool



The OneHealth Tool is a model to be used for supporting national strategic health planning in low- and middle-income countries. The tool facilitates an assessment of resource needs associated with key strategic activities and their associated costs, with a focus on integrated planning and strengthening health systems.

This model seeks to leverage the most useful components of the different tools that currently exist and is designed in a modular fashion allowing for program specific costing as well as health system component costing. The development of the tool is overseen by an inter-agency group consisting of experts from UN agencies and development institutions (the IAWG-Costing).

www.avenirhealth.org/software-onehealth

Developing an Investment Case

Why invest in cancer?

Provides broader human, social & economic benefits

With...
US\$2-4
billion

~~Estimated
revenue for
bevacizumab~~

~~US\$5-7 bil/yr~~

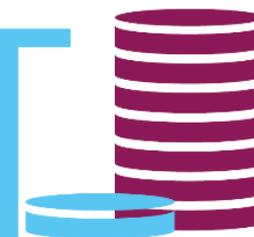

We can tackle noncommunicable
diseases for an additional
US\$ 1.27 per person per year*
*in low- and lower-middle-income countries


Implementing the WHO Best Buys
for noncommunicable diseases
can generate
US\$ 350 B
in economic growth between
now and 2030



8.2 M lives

We can save 8.2 M lives by 2030 by
implementing the WHO Best Buys for
noncommunicable diseases



Every **US\$ 1**
invested in the WHO
Best Buys to tackle
noncommunicable
diseases will yield
a return of at least
US\$ 7 by 2030

US\$ 1 US\$ 7

Making the national investment case for cervical cancer elimination

Karen Canfell

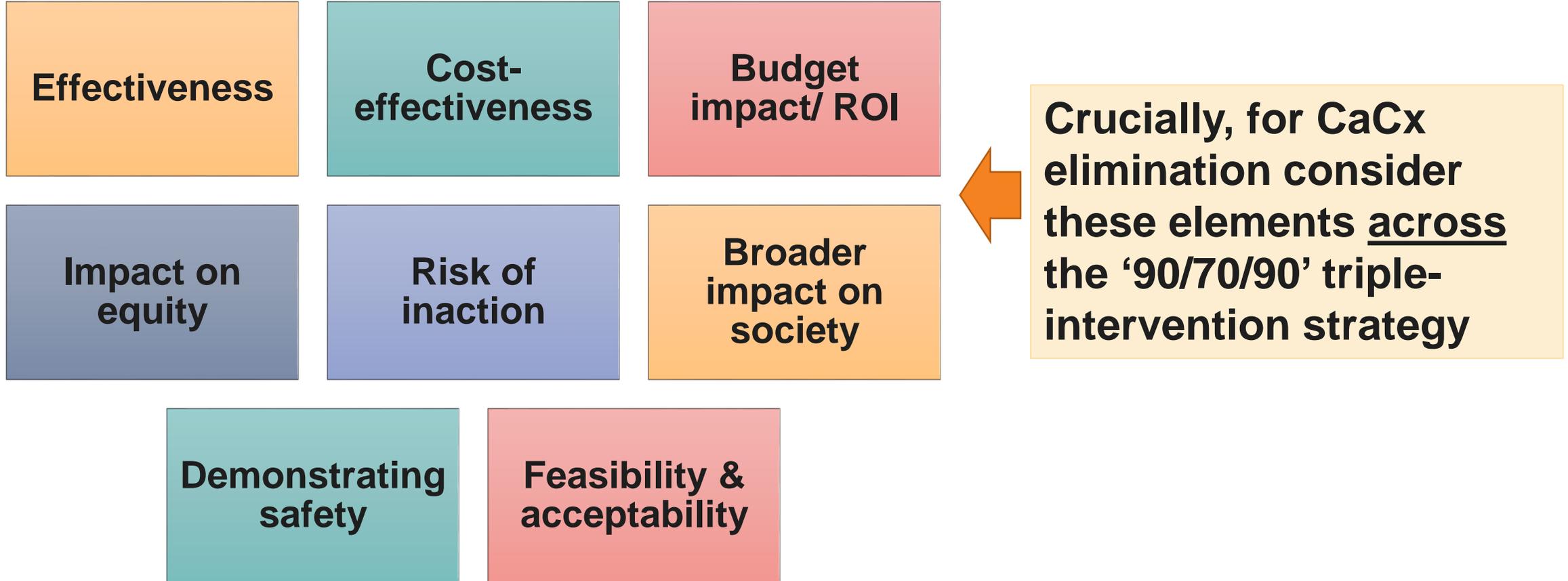
Director, Cancer Research Division, Cancer Council NSW
Adjunct Professor, School of Public Health, University of Sydney
Conjoint Professor, Prince of Wales Clinical School, UNSW Australia



Disclosure: I am a co-PI of an investigator-initiated trial of cervical screening, *Compass*, run by the VCS Foundation, which is a government-funded not-for-profit charity. The VCS Foundation has received equipment and a funding contribution from Roche Molecular Diagnostics. However neither I nor my institution on my behalf has received funding from industry for this or any other research project.

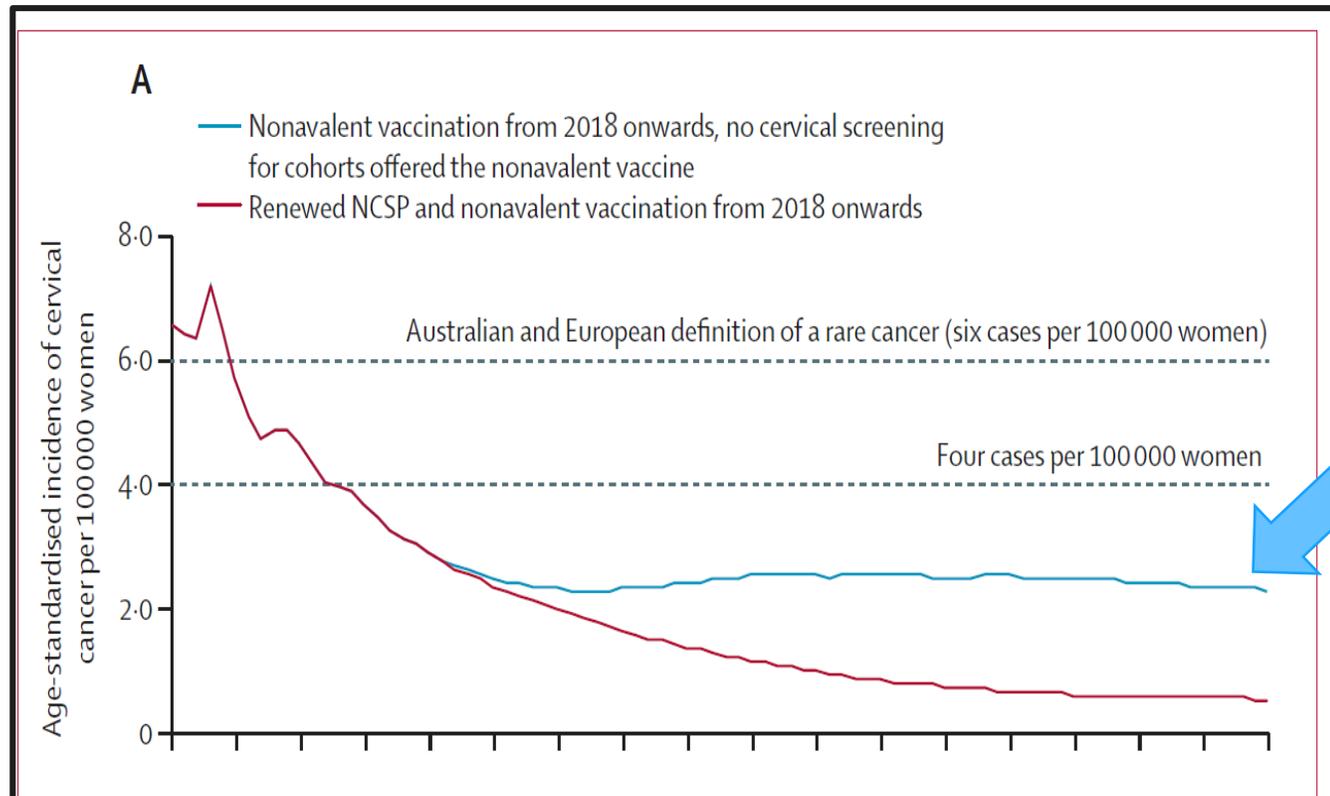
Making a national investment case

Elements to consider



Australia: On-track to eliminate cervical cancer

Predicted timing 2028 (range 2021-2035)



If no cervical screening in cohorts offered nonavalent vaccines at age 12-13 years

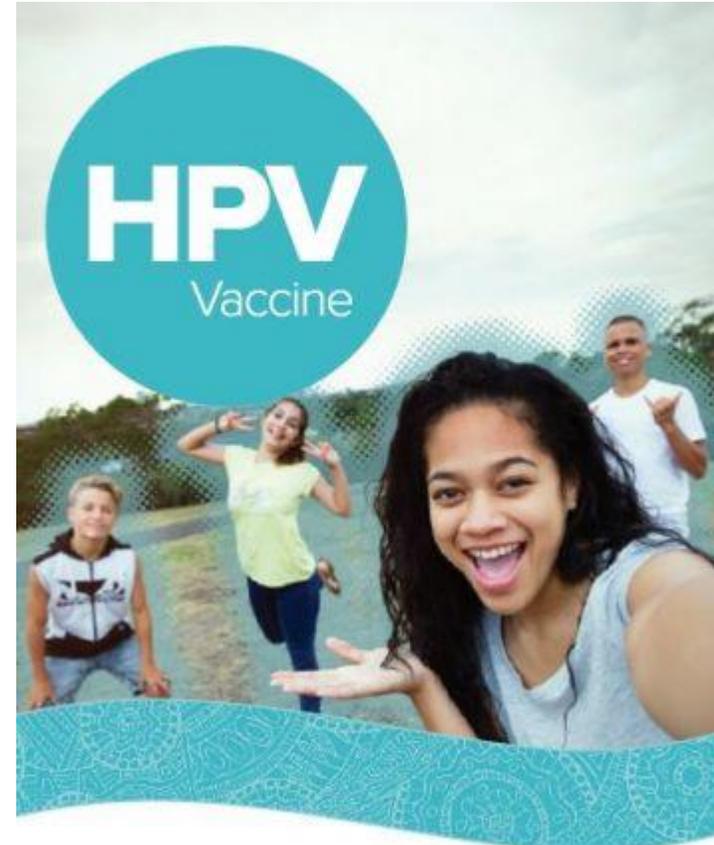
Hall MT, Simms KT, Lew JB, Smith MA, Brotherton JM, Saville M, Frazer IH, Canfell K. The projected timeframe until cervical cancer elimination in Australia: a modelling study. *Lancet Public Health*. 2019 Jan;4(1):e19-e27.

Investment case for vaccination: effectiveness & CE

Free National HPV Vaccination Program,
supported by successful health promotion
campaigns

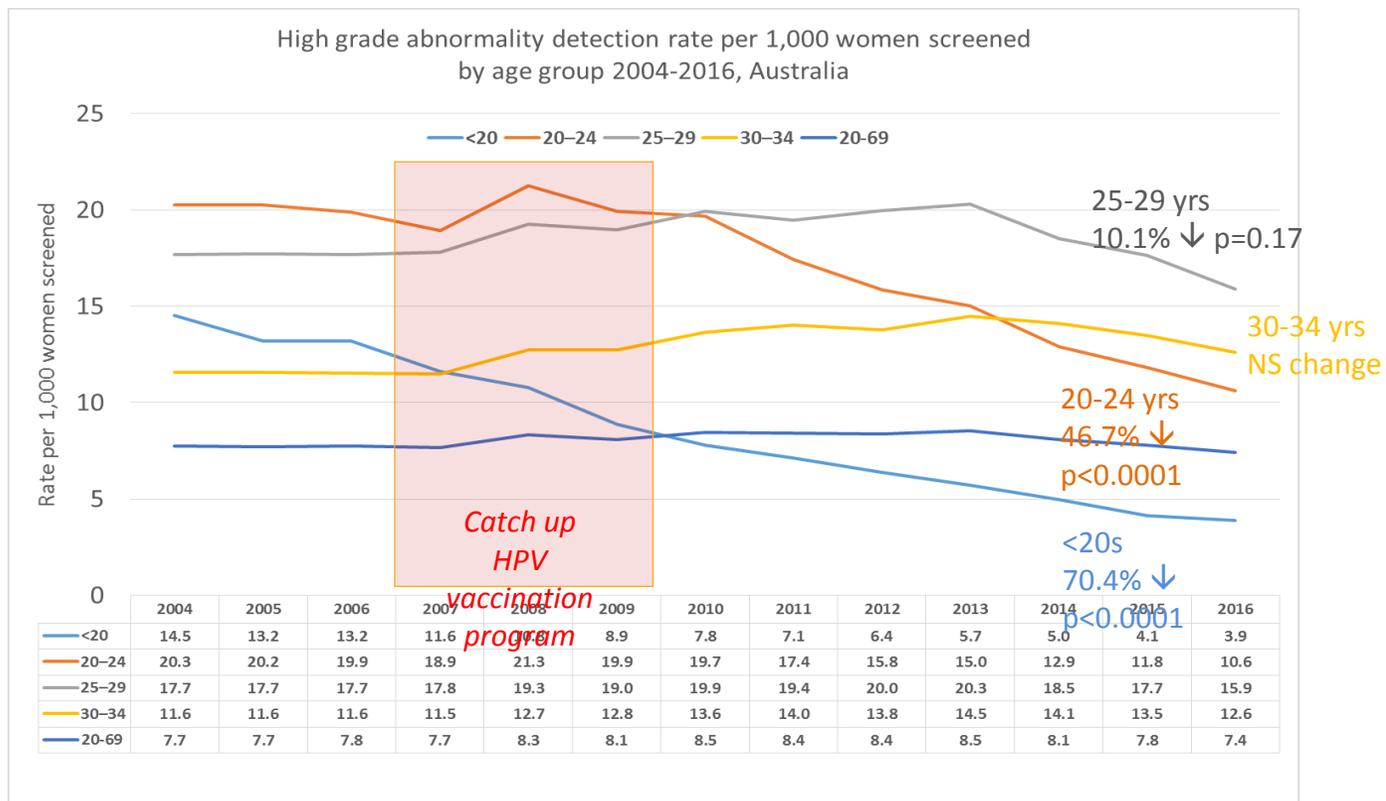
**90-86-80% for
Dose 1-2-3
coverage in girls***

*Females turning 15
years of age in 2017



Risk of inaction on screening

Screening at risk of becoming inefficient and ineffective



Australian Institute of Health and Welfare, Cervical Screening in Australia 2018.
 Australian Government: Cancer Series #124.

Effectiveness, cost-effectiveness & budget impact

Modelling based on international data combined with local information

	Current practice		HPV: final guidelines*	
	If HPV vaccination had not been introduced	Cohort offered vaccination at age 12 years	If HPV vaccination had not been introduced	Cohort offered vaccination at age 12 years
Cervical cancer incidence†	6.92	2.87	4.73 (-31%)	2.17 (-24%)
Cervical cancer mortality†	1.80	0.74	1.15 (-36%)	0.53 (-29%)
Cervical cancer cases (n)‡	850	353	584 (-265; -31%)	267 (-85; -24%)
Cervical cancer deaths (n)‡	227	94	145 (-82; -36%)	66 (-28; -29%)
Colposcopies (n)‡	85795	60995	116889 (31094; 36%)	56479 (-4516; -7%)
Treatments (n)‡	22661	13899	23963 (1302; 6%)	13240 (-659; -5%)
Annual cost† of screening programme (AUS\$)	\$223 million	\$192 million	\$182 million (-41 million; -19%)	\$142 million (-50 million; -26%)
Average discounted cost per woman‡ (AUS\$)	\$383	\$325	\$304	\$227
Average discounted life-year per woman§	21.6219	21.6239	21.6229	21.6242

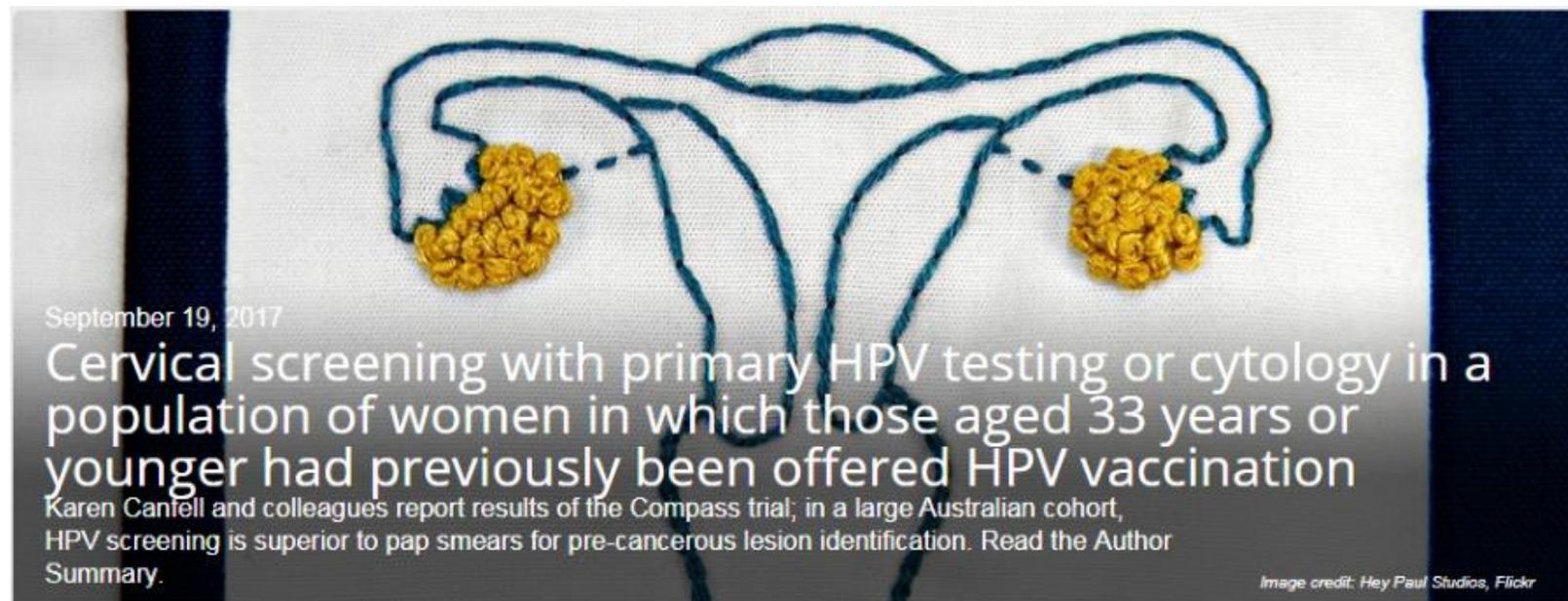
Lew JB, Simms KT, Smith MA, Hall M, Kang YJ, Xu XM, Caruana M, Velentzis LS, Bessell T, Saville M, Hammond I, Canfell K. Primary HPV testing versus cytology-based cervical screening in women in Australia vaccinated for HPV and unvaccinated: effectiveness and economic assessment for the National Cervical Screening Program. *Lancet Public Health*. 2017 Feb;2(2):e96-e107.

Effectiveness & acceptability

Local trial showing high acceptability of HPV screening



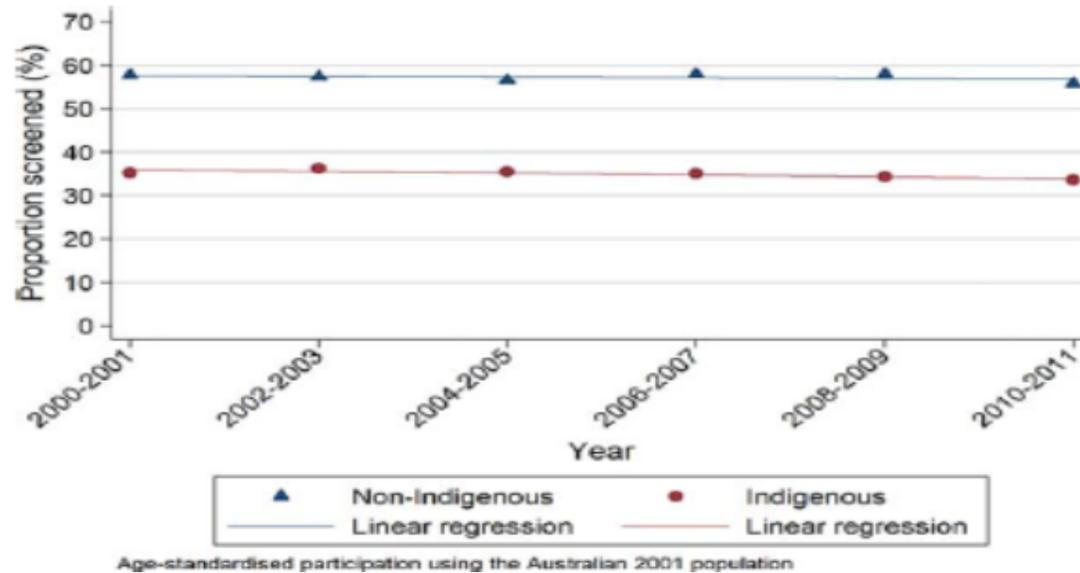
**80%
participation:
High
acceptability of
HPV screening**



Canfell K, Caruana M, Gebiski V, Darlington-Brown J, Heley S, Brotherton J, Gertig D, Jennett CJ, Farnsworth A, Tan J, Wrede CD, Castle PE, Saville M. Cervical screening with primary HPV testing or cytology in a population of women in which those aged 33 years or younger had previously been offered HPV vaccination: Results of the Compass pilot randomised trial. *PLoS Med.* 2017 Sep 19;14(9):e1002388.

Impact on equity

HPV screening offers opportunities to target underscreened women



2-year participation rate:

- 56% for non-Indigenous women
- 34% for Indigenous women

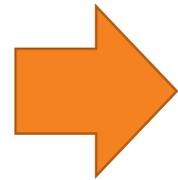
Whop LJ, Garvey G, Baade P, Cunningham J, Lokuge K, Brotherton JM, Valery PC, O'Connell DL, Canfell K, Diaz A, Roder D, Gertig D, Moore SP, Condon JR. The first comprehensive report on Indigenous Australian women's inequalities in cervical screening: A retrospective registry cohort study in Queensland, Australia (2000-2011). *Cancer*. 2016 May 15;122(10):1560-9

These elements supported a policy change

HPV-based cervical screening and treatment for pre-cancer



1991-2017
Cytology screening
2-yearly



2017-on
HPV screening
5-yearly

**82% 5-
yearly
coverage**

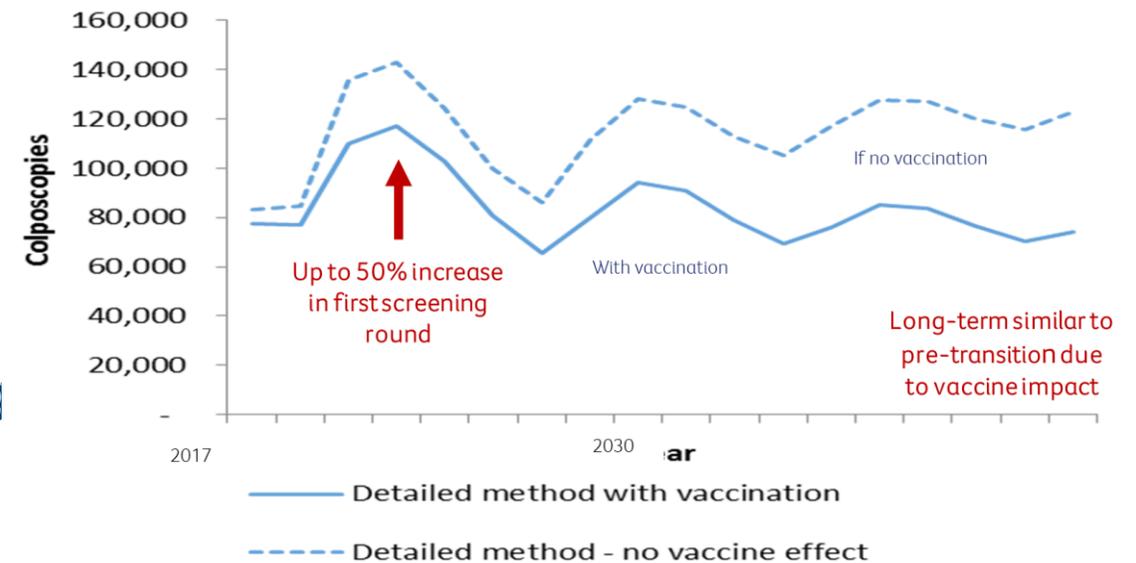
*Participation over the 5 years
2012–2016 was 81.9%.

Implementation: Not without challenges

Even with a well-resourced system

- Implementation challenges for HPV screening:

- Laboratory workforce transformation
- Major cycling in test and referral volumes¹
- Models for delivery of HPV self-collection
- Development of a National Cervical Screening Register



¹ Smith MA, Gertig D, Hall M, Simms K, Lew JB, Malloy M, Saville M, Canfell K. Transitioning from cytology-based screening to HPV-based screening at longer intervals: implications for resource use. *BMC Health Serv Res.* 2016 Apr 26;16:147.

Key steps towards elimination: UHC framework



Access to broad spectrum vaccine for adolescents



Access to HPV screening for women



Access to high quality treatment services for precancer & cancer



Increasing impact and equity

Strengthening of data and monitoring systems is required to ensure successfully delivery of these linked interventions

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Thank you



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