

# STARTING CERVICAL SCREENING AT AGE 25 IS SAFE



VCS Pathology

The International Agency for Research on Cancer recommends that cervical screening commence at the earliest at age 25 because *'there is minimal benefit and substantial harm in screening below age 25.'* (IARC 2005)<sup>1</sup>

**FACT**

Screening before the age of 25 to prevent cervical cancer doesn't work

Australia's long standing National Cervical Screening Program (NCSP) was introduced in 1991. The NCSP has been very successful in women over 25 years and we now have very low rates of cervical cancer in Australia. Unfortunately, there has been no impact on the very uncommon cancers that do occur in women under 25 years. This is because most women in this age group are newly sexually active and have transient human papillomavirus (HPV) infection that can be associated with concerning cytological appearances despite the fact that the overwhelming majority of these infections are destined to be cleared.

The success of Australia's current screening program has been due to the participation of women from the age of 25 years, not the participation of women under 25 years. Cervical cancer is rare in women under 25 years of age and rates in this age group have remained unchanged in Australia despite screening.<sup>2</sup> (Figure 1)

In Australia currently and historically there are around 19 cervical cancer cases per million women aged 20-24 years and this is expected to decline to 7 per million by 2020 (with ongoing declines after that) **due to HPV vaccination.**<sup>3</sup>

**FICTION**

Some people speculate that screening women under age 25 is preventing cancers in 25-29 year old women, but this claim is not supported by the evidence

Analysis of screening data from the UK found no protective effect of screening at ages 20-24 years on cervical cancer development in 25-29 year olds.<sup>4</sup> Rates of cervical cancer in 25-29 year olds have indeed been rising in the UK but at the same rate in England, where 20-24 year olds are NOT screened, as in Scotland and Wales where they are screened.<sup>5</sup>

## FALL IN CERVICAL CANCER IN AUSTRALIAN WOMEN OVER TIME BUT NO DECLINE FOR WOMEN 20-24 YEARS

(Source AIHW 2016. Cervical screening in Australia 2013-2014: supplementary data tables)

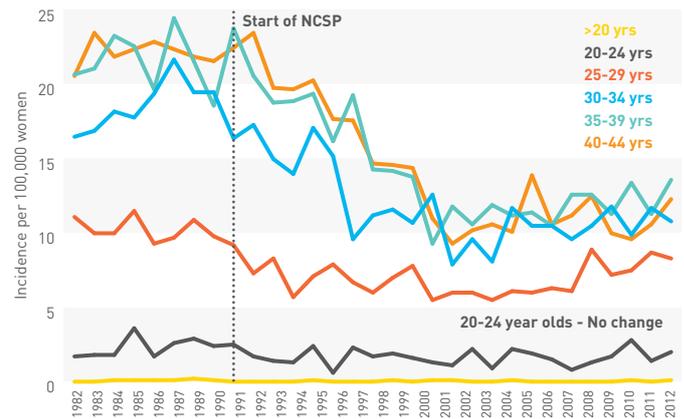


FIGURE 1

**FACT**

Screening before the age of 25 can cause harm

Screening women younger than 25 years leads to many women receiving treatment for cell changes caused by HPV that would never become cancers but were destined to resolve on their own. Unfortunately, as well as the short term risk of treatment related pain, bleeding and infection, evidence links treatments of the cervix with a small but important increased risk of preterm delivery, suggesting significant long term obstetric harm from this over-diagnosis and treatment.<sup>6</sup>

- 1 International Agency for Research on Cancer. IARC handbooks of cancer prevention Vol 10: cervix cancer screening. Lyon: IARC;2005.
- 2 Smith M, Canfell K. Impact of the Australian National Cervical Screening Program in women of different ages. *Med J Aust* 2016; 205 (8): 359-364.
- 3 Personal correspondence, Prof Karen Canfell, Cancer Council NSW, May 2017. Estimate derived from Australian specific modelling platform as previously published [see reference 13].
- 4 Sasieni P, Castanon A, Cuzick J. Effectiveness of cervical screening with age: population based case-control study of prospectively recorded data. *BMJ* 2009; 339: b2968.
- 5 Sasieni P, Castanon A. Dramatic increase in cervical cancer registrations in young women in 2009 in England unlikely to be due to the new policy not to screen women aged 20-24. *J Med Screen*. 2012 Sep; 19(3):127-32.
- 6 Kyrgiou M, Athanasiou A, Paraskevaidi M, Mitra A, Kalliala I, Martin-Hirsch P et al. Adverse obstetric outcomes after local treatment for cervical preinvasive and early invasive disease according to cone depth: systematic review and meta-analysis *BMJ* 2016; 354: i3633

**FACT****HPV vaccination will further reduce the very low rates of cervical cancer in women under 25 years**

Because HPV16 is the most aggressive HPV type, the very uncommon cancers that do occur in younger women are more likely due to HPV16.<sup>7,8</sup> Young women in Australia are now at substantially lower risk of HPV16 and HPV 18 infection,<sup>9</sup> and the resultant pre-cancers<sup>10</sup> and cancer of the cervix, than ever before. This is due to the high uptake of the HPV vaccine which has dramatically decreased the circulation of the virus in young people in Australia, so that even unvaccinated women are experiencing a degree of indirect (herd) protection.<sup>11</sup>

**FICTION**

There are many online testimonies from women saying they had cervical cancer before the age of 25

Most of these women will have had pre-cancerous changes rather than invasive cancer, given how extremely uncommon cervical cancer is in this age group. This distinction (between pre-cancerous changes and invasive cancer) is commonly misunderstood by women who have been treated in our current program.

Very uncommonly, women under 25 years have developed cervical cancer and unfortunately participation in the NCSP either has not prevented the development of their cervical cancer (if they participated) or was not likely to have prevented the development of cancer (if they hadn't participated), given the evidence. Recognition of the limitations of screening in young women should not be seen as diminishing the experience and concerns of young women who have been treated for either cervical pre-cancer or cancer.

**FICTION**

Some people speculate that this policy is not safe for young women who started having sex at a young age

There is limited evidence about the risk of cervical cancer in young women who have been exposed to HPV through sexual activity when they were younger than 14 years (whether consensual or not). However, the available evidence does not suggest that these women are at increased risk of invasive cervical cancer compared to women who commenced sexual activity at 16 to 18 years.<sup>12</sup>

Given the limitations of the evidence relating to women who experienced exposure to HPV at a young age, women who had their first sexual activity when they were younger than 14 years and had not received HPV vaccination prior to their sexual debut, may have a single HPV test between 20 and 24 years, if considered appropriate by her healthcare provider in consultation with the woman and having also considered the potential harms, both physical and psychosocial.

**VCS Pathology**  
**265 Faraday Street Carlton VIC 3053**  
**Postal Address: PO Box 178 Carlton South, Victoria 3053**  
**Phone: 03 9250 0300 Fax: 03 9349 1977 Website: www.vcs.org.au**

**FICTION**

Some people say that the change to the age to start screening is a "cost cutting" measure

The changes are based on evidence. While the age of starting screening has gone up to 25 years, the age for exiting the renewed NCSP has also gone up, to 74 years. This is because evidence has shown that between 69 years (the current age to cease screening) and 74 years women remain at risk of developing cancer and extending the age at which screening stops is anticipated to produce further declines in cervical cancer rates.<sup>13</sup>

Any women with possible symptoms of cervical cancer (pain, bleeding or discharge) should have diagnostic cytology and HPV testing and appropriate referral regardless of age. This is not screening.<sup>14</sup>

**CONCLUSION**

It is safe to start cervical screening at age 25. The best protection against the extremely uncommon cervical cancers arising in women aged under 25 years is HPV vaccination, as these cancers cannot be prevented by screening. The changes to Australia's National Cervical Screening Program are predicted to result in a further 20 to 30% decline in the incidence of and mortality due to cervical cancer.<sup>15</sup>

- 7 Hammer A, Rositch A, Qeadan F, Gravitt P E and Blaakaer J (2016), Age-specific prevalence of HPV16/18 genotypes in cervical cancer: A systematic review and meta-analysis. *Int. J. Cancer*, 138: 2795-2803.
- 8 de Sanjose S, Wheeler C M, Quint W G V, Hunt W C, Joste N E, Aletmany L, Bosch F X, Myers E R, and Castle P E. Age-Specific Occurrence of HPV16- and HPV18-Related Cervical Cancer. *Cancer Epidemiol Biomarkers Prev* July 1 2013 [22] (7) 1313-1318.
- 9 Osborne S, Tabrizi SN, Brotherton JML, et al. Assessing human papillomavirus genotype prevalence in young Australian women following the introduction of a national vaccination program. *Vaccine* 2015; 33: 201-208. Available online 1 November 2014.
- 10 Brotherton JML, Gertig DM, May CL, Chappell GA, Saville M. HPV vaccine impact in Australian women: ready for an HPV based screening program. *Med J Aust* 2016; 204 (5): 184
- 11 Tabrizi SN, Brotherton JM, Kaldor JM, Skinner SR, Liu B, Bateson D, McNamee K, Garefalakis M, Phillips S, Cummins E, Malloy M, Garland SM. Assessment of herd immunity and cross-protection after a human papillomavirus vaccination programme in Australia: a repeat cross-sectional study. *Lancet Infect Dis*. 2014 Oct;14(10):958-66
- 12 Cancer Council Australia Cervical Cancer Screening Guidelines Working Party: National Cervical Screening Program: Guidelines for the management of screen-detected abnormalities, screening in specific populations and investigation of vaginal bleeding. Chapter 15, Screening in women who have experienced early sexual activity or have been victims of sexual abuse. Cancer Council Australia, Sydney (2016).
- 13 MSAC Outcomes Application No. 1276 - Renewal of the National Cervical Screening Program.
- 14 Cancer Council Australia Cervical Cancer Screening Guidelines Working Party: National Cervical Screening Program: Guidelines for the management of screen-detected abnormalities, screening in specific populations and investigation of vaginal bleeding. Chapter 18, Investigation of abnormal cervical bleeding. Cancer Council Australia, Sydney (2016).
- 15 Lew J-B, Simms KT, Smith MA, Hall M, Kang Y-J et al. 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. *The Lancet Public Health* 2017;2(2):e96 - e107.

Copyright Notice © 2017 Victorian Cytology Service Limited (ACN 609 597 408)  
 These materials are subject to copyright and are protected by the Copyright Laws of Australia. All rights are reserved.  
 Any copying or distribution of these materials without the written permission of the copyright owner is not authorised.