An overview of cervical cancer

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The control of cervical cancer in New Zealand: Achievements and future prospects

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The cause of cervical cancer

- Virtually all cervical cancers result from a persistent infection with certain high-risk types of human papillomavirus (HPV)
- 12 types of HPV now consistently classified as high-risk
- 8 other types of HPV considered likely to be high-risk
- HPV infections very common – lifetime risk ~80%
- But, cervical cancer is a rare complication
- Most infections clear without causing abnormalities

Cervical cancer around the world

In 2012, worldwide:
- Estimated 528,000 new cases of cervical cancer
- Cervical cancer was fourth most common cancer in women
- Seventh most common cancer overall

In 2012, worldwide:
- 266,000 deaths due to cervical cancer
- 7.5% of all female cancer deaths

Estimated age-standardized rates (World) of incidence cases, females, cervical cancer, worldwide in 2012
Estimated age-standardized rates (World) of deaths, females, cervical cancer, worldwide in 2012

Malawi

≥ 17.5
9.3–17.5
5.7–9.3
2.4–5.7
< 2.4
No data
Not applicable

Data source: GLOBOCAN 2012
Graph production: Cancer Today
(http://gco.iarc.fr/today)
World Health Organization
Cervical cancer in New Zealand

In 2012:

- Cervical cancer 11\textsuperscript{th} most common cancer in women
- 21\textsuperscript{st} most common cancer overall

- 19\textsuperscript{th} most common cause of cancer death in women
- 23\textsuperscript{rd} most common cause of cancer death overall

Cervical cancer in New Zealand continued

In 2014:
- 142 new cases of cervical cancer
  - Age-standardised incidence rate:
    - 4.6 per 100,000 non-Māori women
    - 11.5 per 100,000 Māori women

In 2013:
- 54 deaths from cervical cancer
  - Age-standardised mortality rate:
    - 1.4 per 100,000 non-Māori women
    - 4.0 per 100,000 Māori women

Historical summary

Five-year moving average. Age-standardised to WHO world standard population.

Source: Figure prepared by author using data provided by the Ministry of Health.
Incidence by ethnicity

Five-year moving average. Age-standardised to WHO world standard population.

**Source:** Figure prepared by author using data provided by the Ministry of Health.
Mortality by ethnicity

Five-year moving average. Age-standardised to WHO world standard population.

Source: Figure prepared by author using data provided by the Ministry of Health.
Some possible explanations

- Screening history
- Stage at diagnosis
- Comorbid conditions
- Treatment

Source: Epidemiological studies of cervical cancer survival in New Zealand: a thesis presented in partial fulfilment of the requirements for the degree of Doctor of Philosophy in Epidemiology at Massey University, Wellington Campus, New Zealand. Brewer, Naomi. 2011
Prevention

- Immunisation
  - the HPV vaccine (Gardasil® used in NZ)

- Smear test (cytology screening)
  - cytology with high-risk HPV triage in women ≥30 years to help assess risk of progression

- HPV with cytology triage
  - self-sampling for HPV testing
Conclusion

- Cervical cancer is gradually becoming less common & fewer women dying from cervical cancer in NZ

- But, the decreases are not evenly distributed across the population

- Effective methods for the prevention of cervical cancer now exist and work is continuing to improve these methods
Thank you!