The NCSP in New Zealand: achievements and challenges

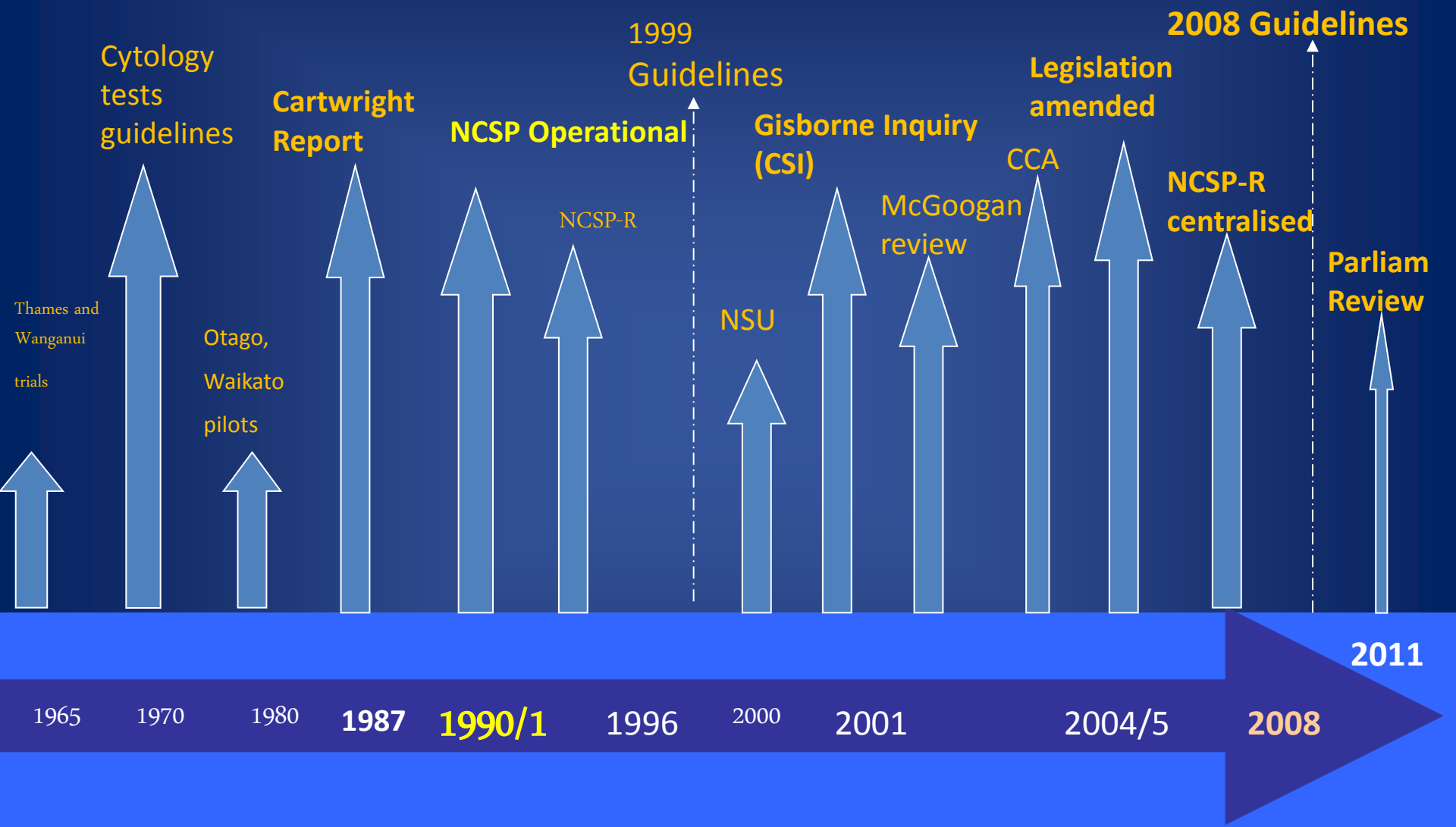
Hazel Lewis, Ministry of Health

Overview

- Background
- NCSP today
- Challenges
- Planning for the future

BACKGROUND

History of cervical screening in New Zealand

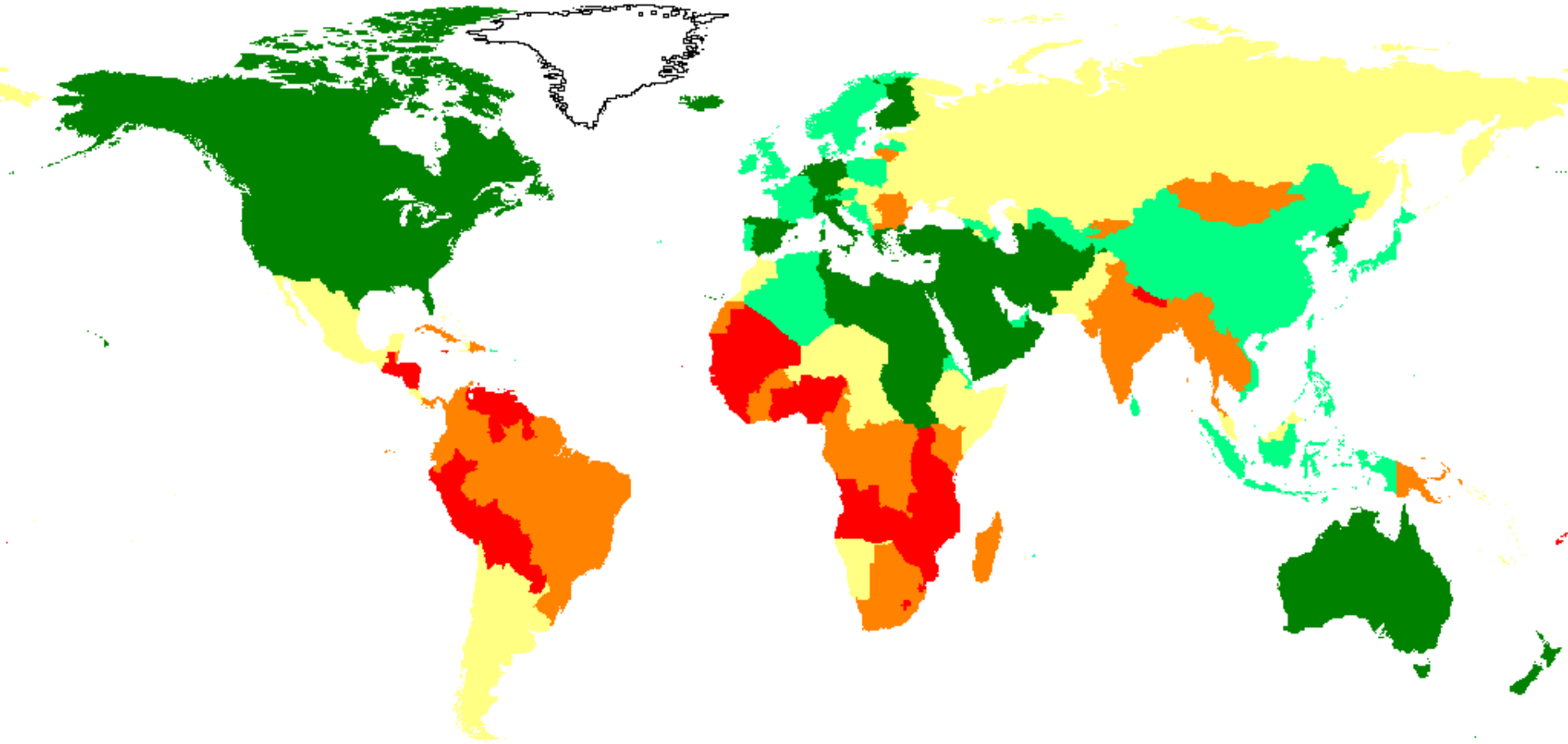


The Screening Pathway

- Screening age range and interval
- Invitation and recall
- Screening tests
- Guidelines
- Policies and Standards
- NCSP Register
- Monitoring and Evaluation

NCSP TODAY

Estimated age-standardised incidence rate per 100,000
Cervix uteri, all ages

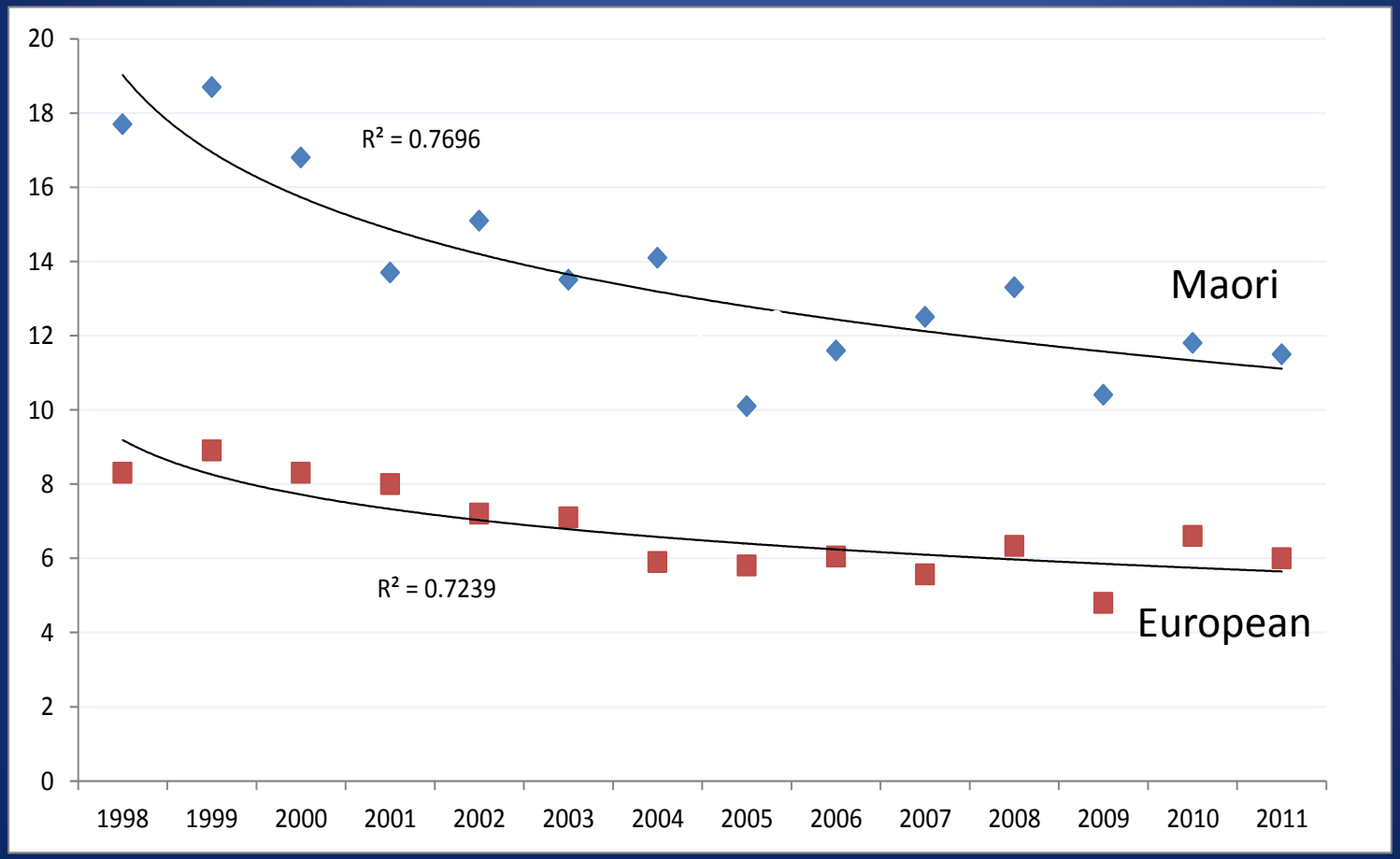


GLOBOCAN 2008 (IARC) - 14.6.2010

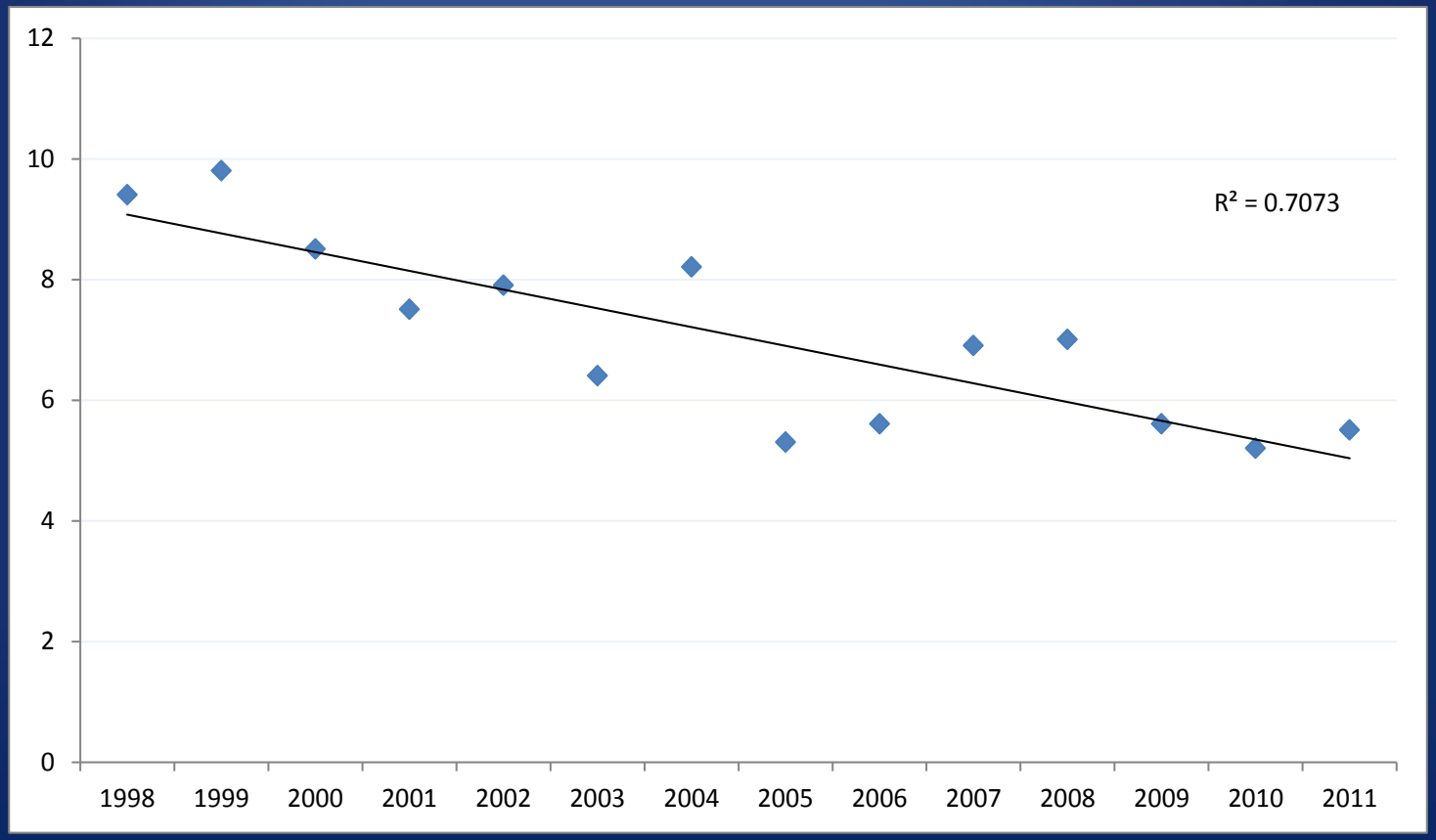
Results of cervical screening, since 1990

- ~ 60% reduction in incidence and mortality
- ~ 250-500 cancer cases prevented each year (modelling)
- ~ 50-100 deaths from cervical cancer prevented each year (modelling)
- Inequalities (gaps) narrowing but more work to do

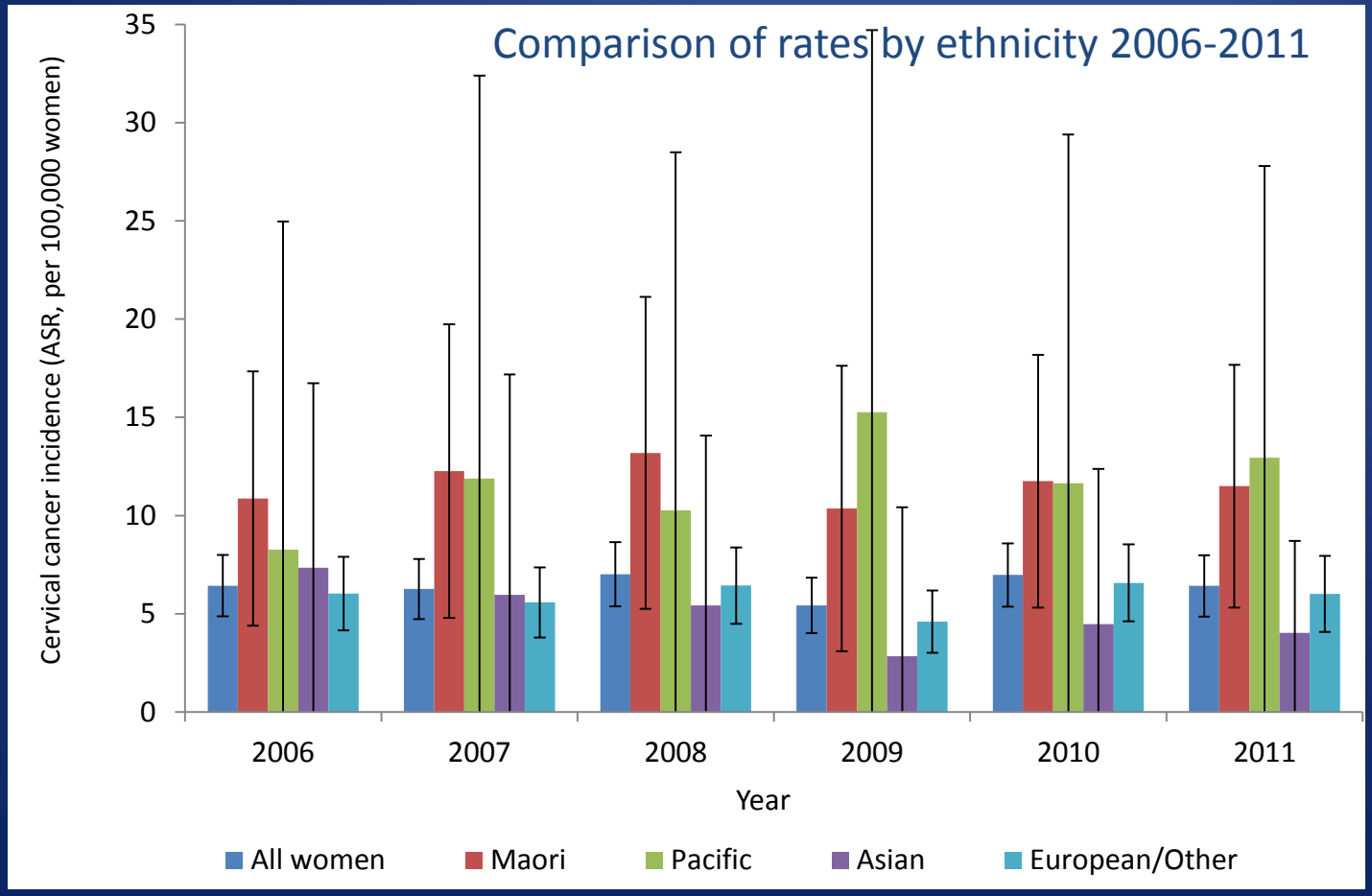
Cervical cancer incidence (age standardised), by ethnicity, 1998 - 2011



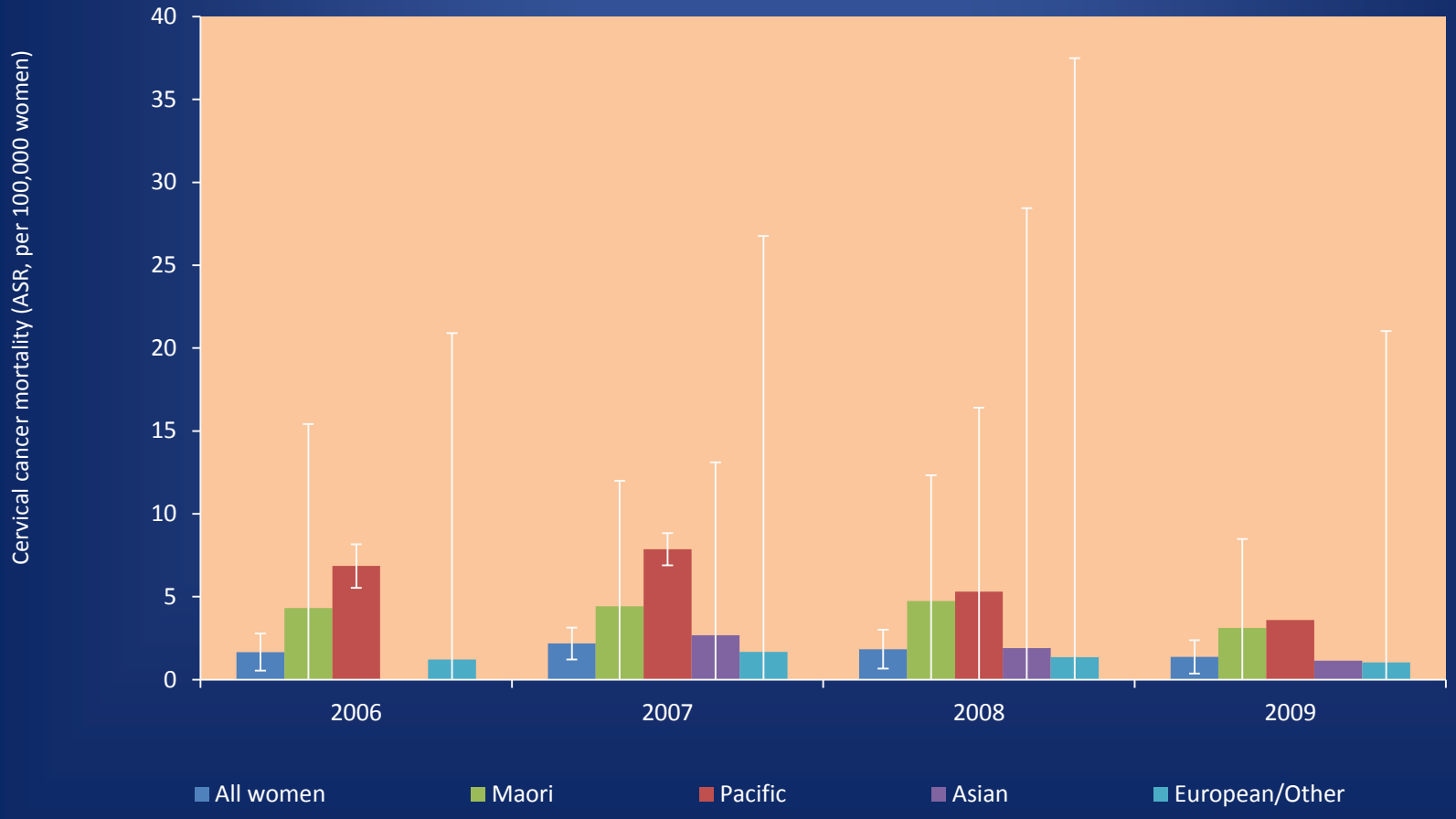
Absolute ethnic inequality in cervical cancer incidence, standardized for age, 1998 - 2011



Inequalities in cervical cancer incidence



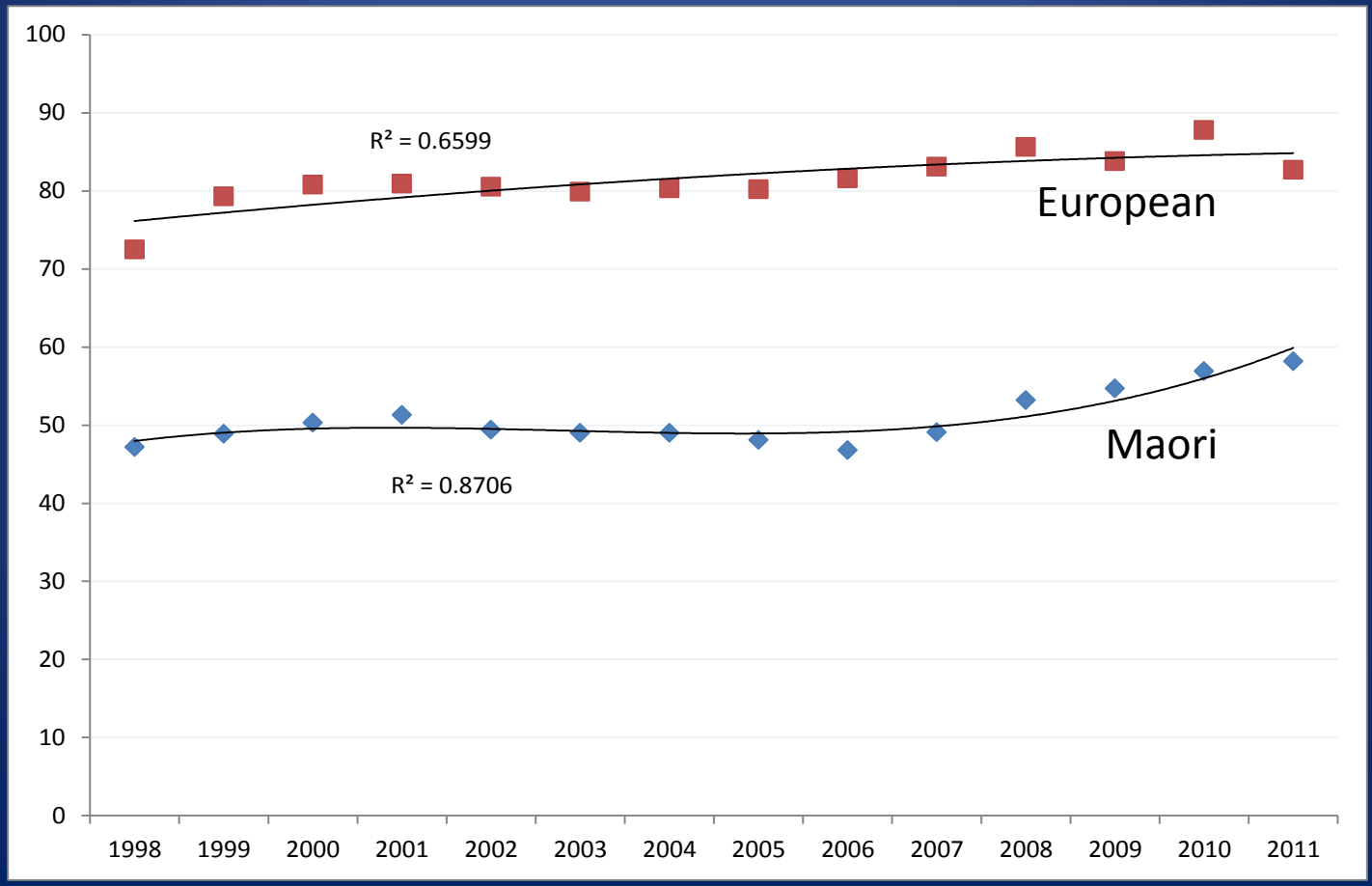
Cervical Cancer Mortality



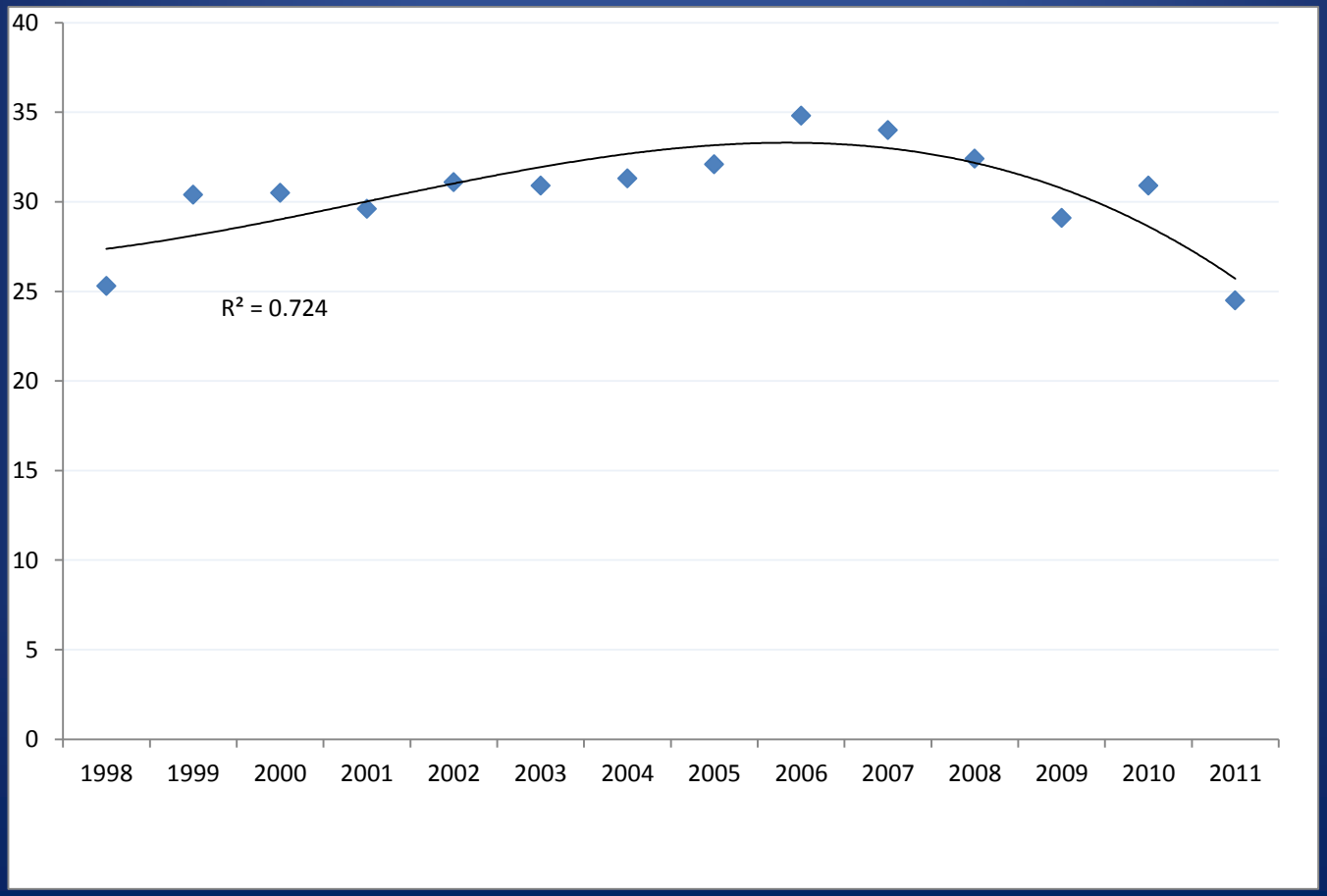
No deaths recorded for Asian women in 2006

Inequalities in Coverage

3-yearly screening coverage rates, standardized for age, by ethnicity, 1998 - 2011

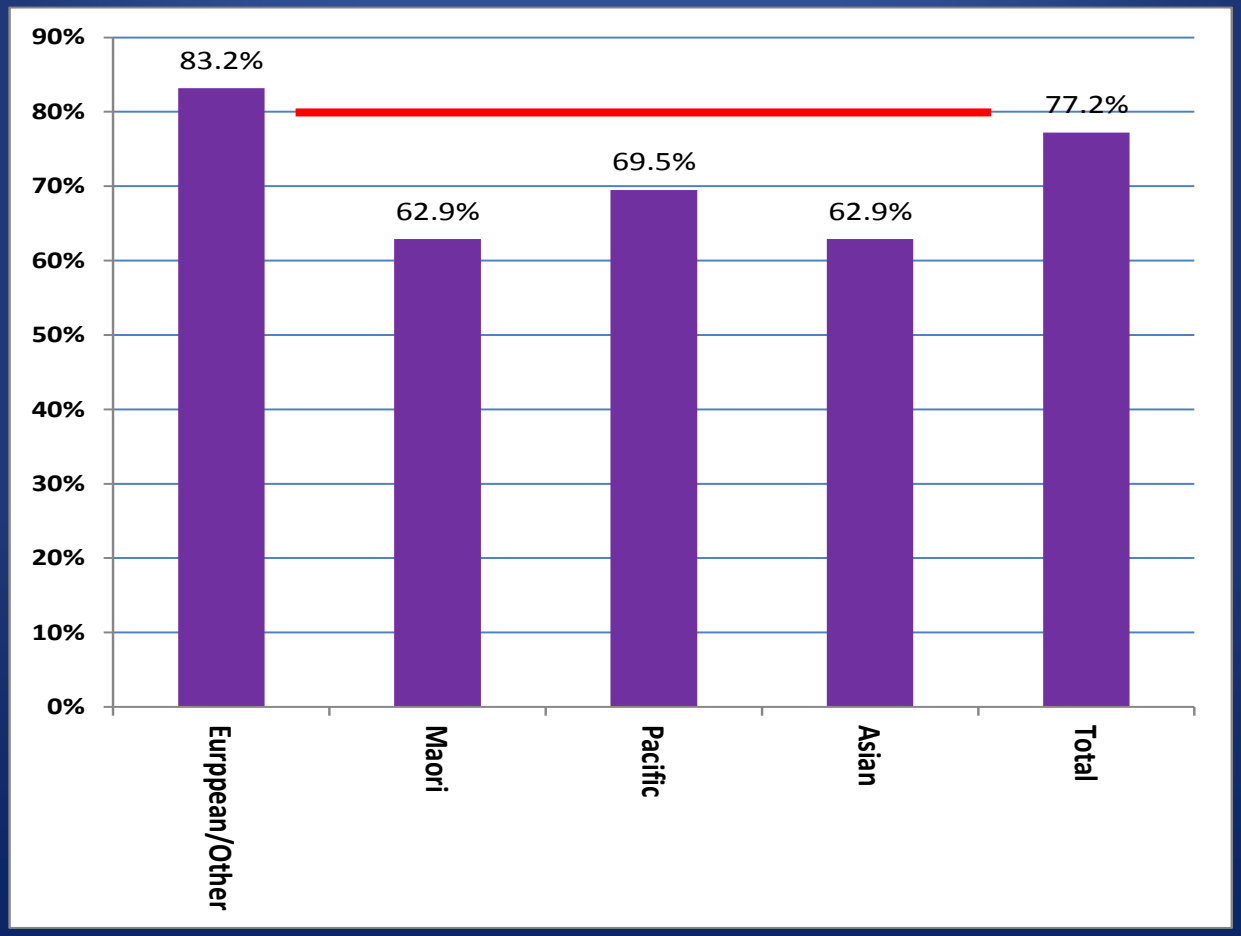


Inequalities in Coverage

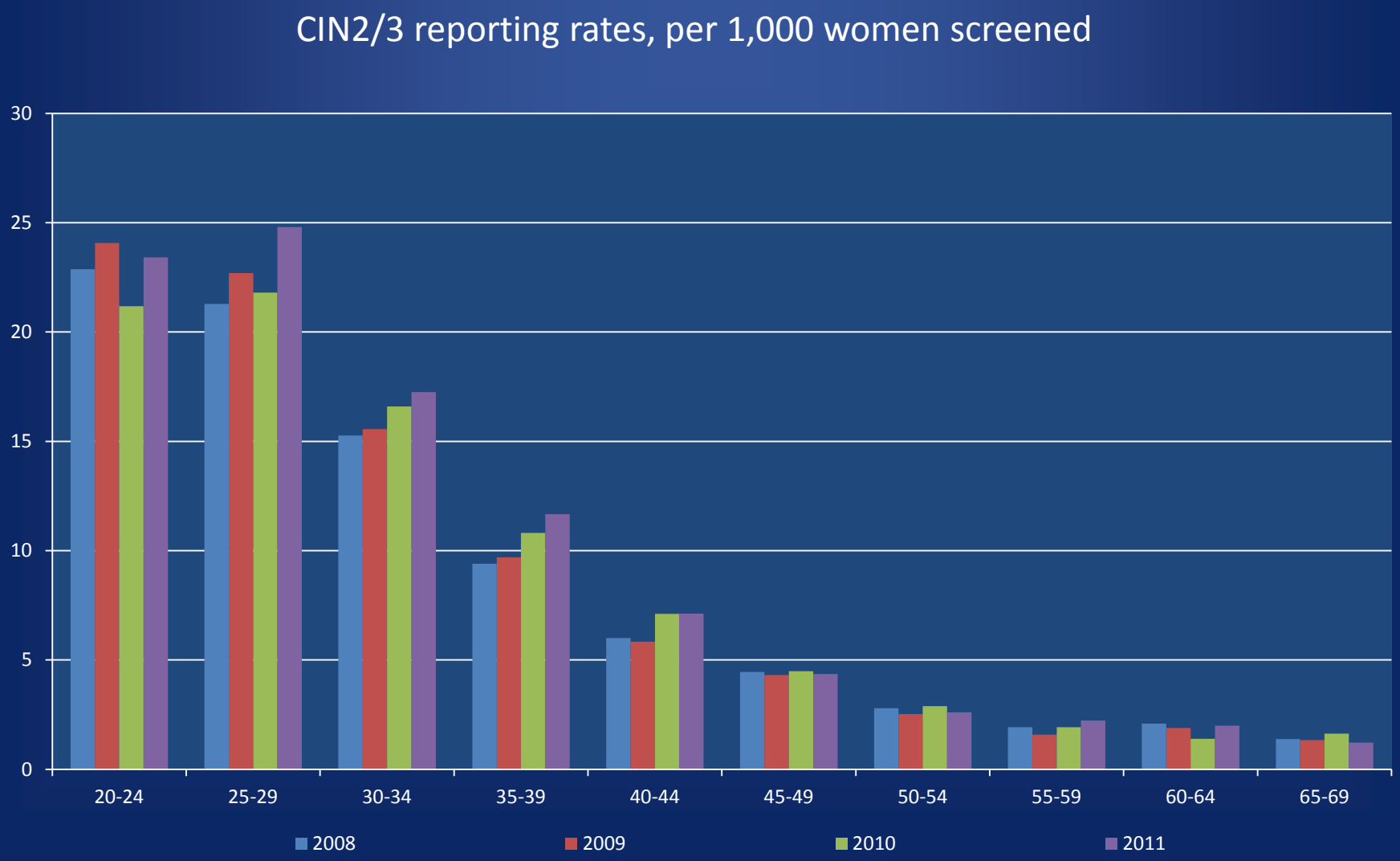


3 yr NCSP coverage by ethnic group

25-69 yrs, Dec 2012, hysterectomy adjusted



Histology reporting



NCSP annual volumes

- ~ 435,000 smears per year
  - ~ 4,000 HSIL (0.9%)
  - ~ 17,000 LSIL (3.9%)
  - ~ 11,000 ASCUS (2.6%)
  - ~ 3,500 ASC-H (0.8%)
  - ~ 450 AIS / AGS (0.1%)
  - ~ 400,000 NILM (92.0%)
- ~ 30,000 Colposcopies
- ~ 40,000 LBC samples hrHPV tested

CHALLENGES

Challenges

- Improve coverage
- Achieve equity in coverage and incidence
- Adapt to the HPV vaccination era

Improve coverage, achieve equity

- National screening and funding policies
- offer ‘free’ smears, where possible
- identify and support priority women (invitations, recall, referrals, transport, child care, flexible services)
- raise awareness , education
- reduce physical access barriers
- cultural safety
- technologies (self testing)
- screening age range and interval

- National social marketing campaigns

Adapt to HPV vaccine era

NCSP Parliamentary Review

"In the new era of HPV vaccination, most persistent infections will decrease, with a subsequent reduction in high grade abnormalities of the cervix. This will result in fewer colposcopies and treatment of cervical abnormalities. As the prevalence of abnormalities falls, this will have an impact on performance characteristics of cytology as a screening test due to a lower positive predictive value"

J Tan, L Thompson, R Howlett, June 2011

Adapt to HPV vaccine era

"As international evidence strengthens about the use of HPV as a primary screening test, many are increasingly supportive of moving forwards to replace cytology with HPV testing as the primary screen and reserving cytology as a triage to ascertain referral to colposcopy".

NCSP Parliamentary Review, June 2011

PLANNING FOR THE FUTURE

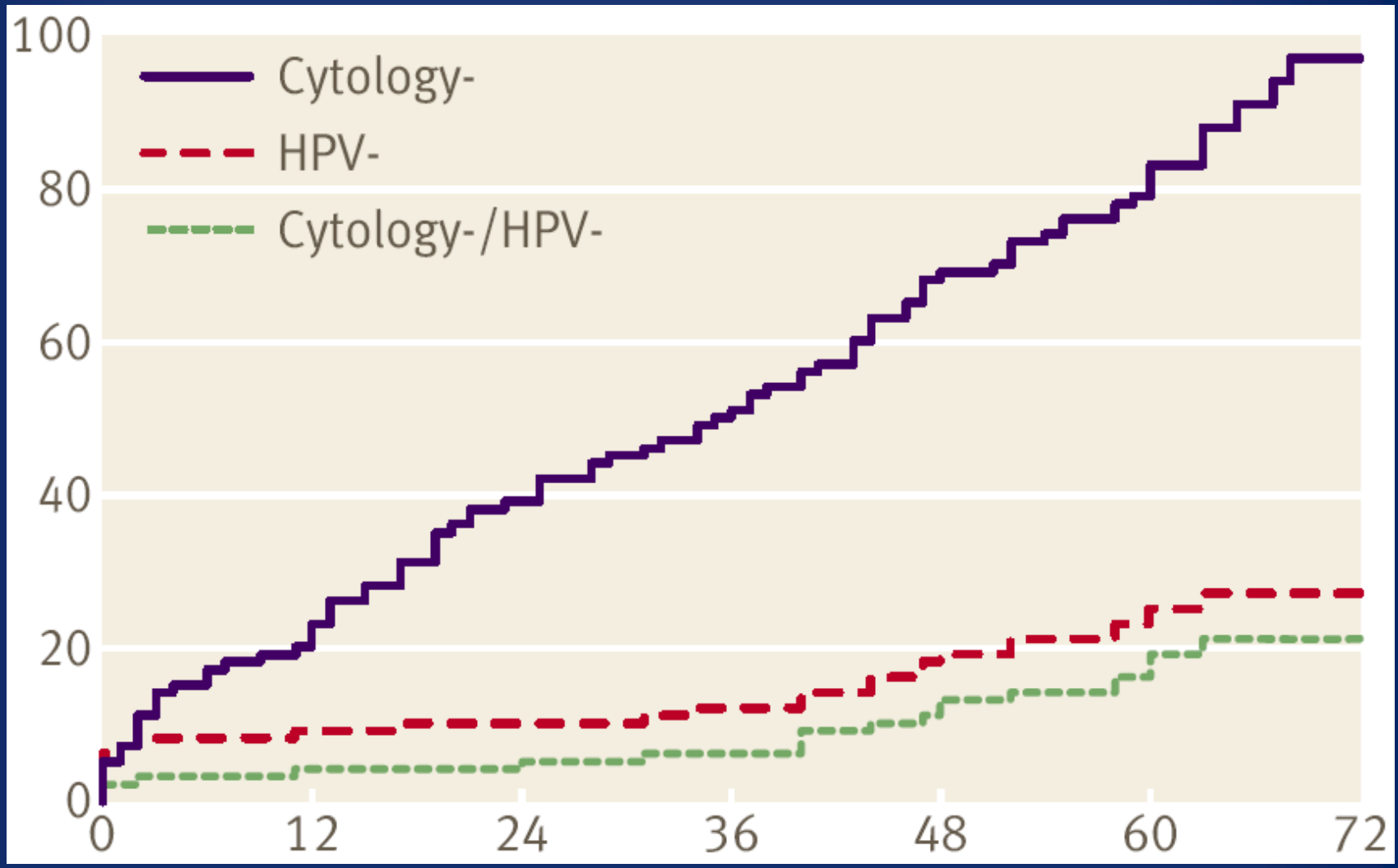
Planning for the future

- Impact of HPV vaccination on the cost effectiveness of cervical screening in New Zealand

  (K Canfell, Jie-Bin Lew, M Clements, M Smith, J Harris, L Simonella, C Nickson, R Walker, H Neal, H Lewis)

- Modelling impact of various primary HPV screening strategies compared to current practice taking into account
  - impact on optimal screening age range and interval
  - optimal methods for managing HPV positive women

CIN3+ risk following a negative screening test



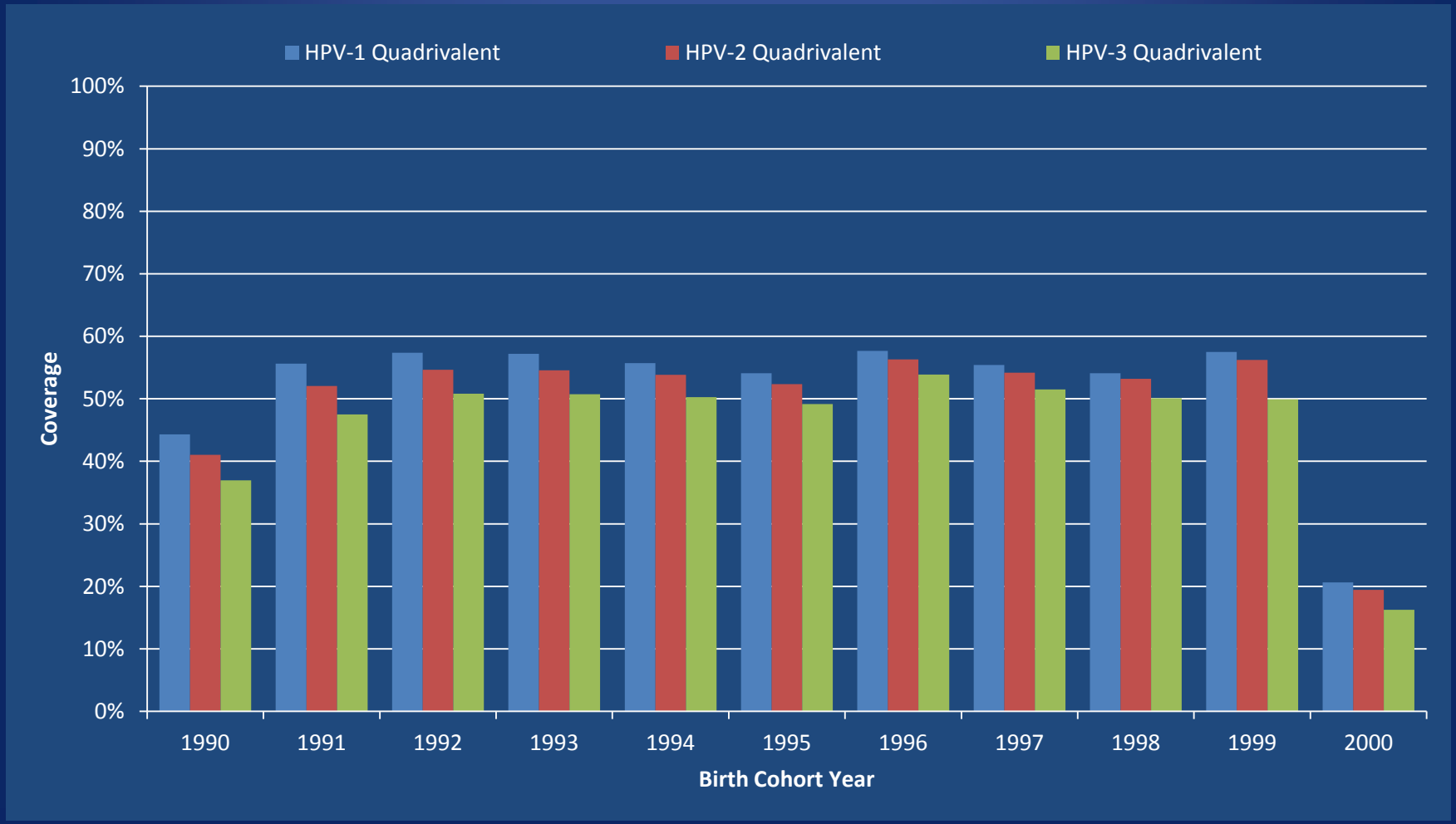
Dillner *et al*., BMJ, 2008

Planning for the future

- New strategies for screening could:
  - Improve effectiveness and cost-effectiveness
  - Maintain cost-effectiveness over the long term in context of vaccination

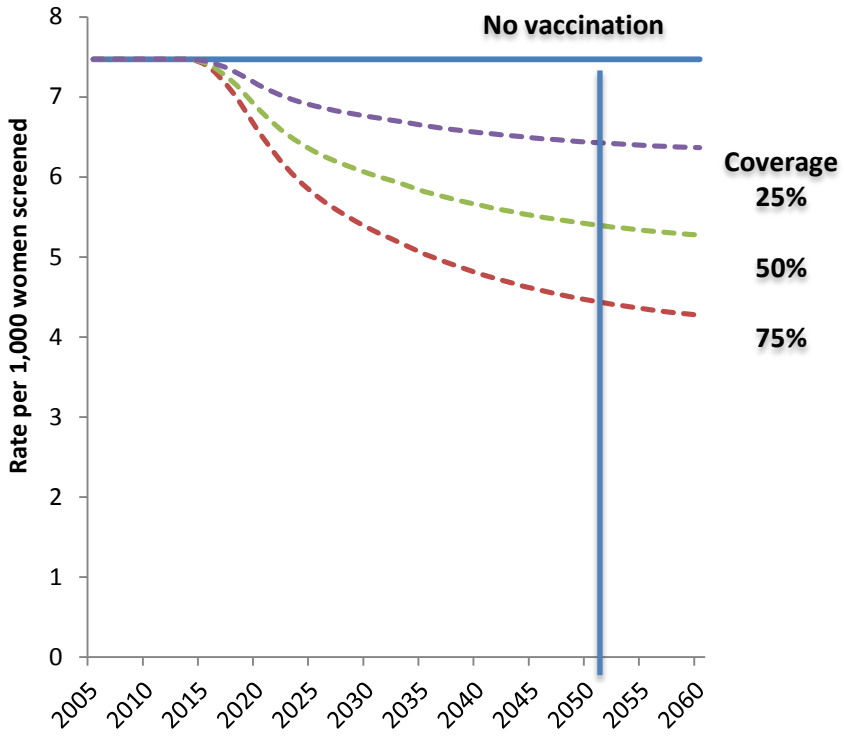
- **Consideration of transition to primary HPV screening at longer intervals**

NZ HPV vaccine coverage by birth cohort and dose from start of programme to 31 Dec 2012

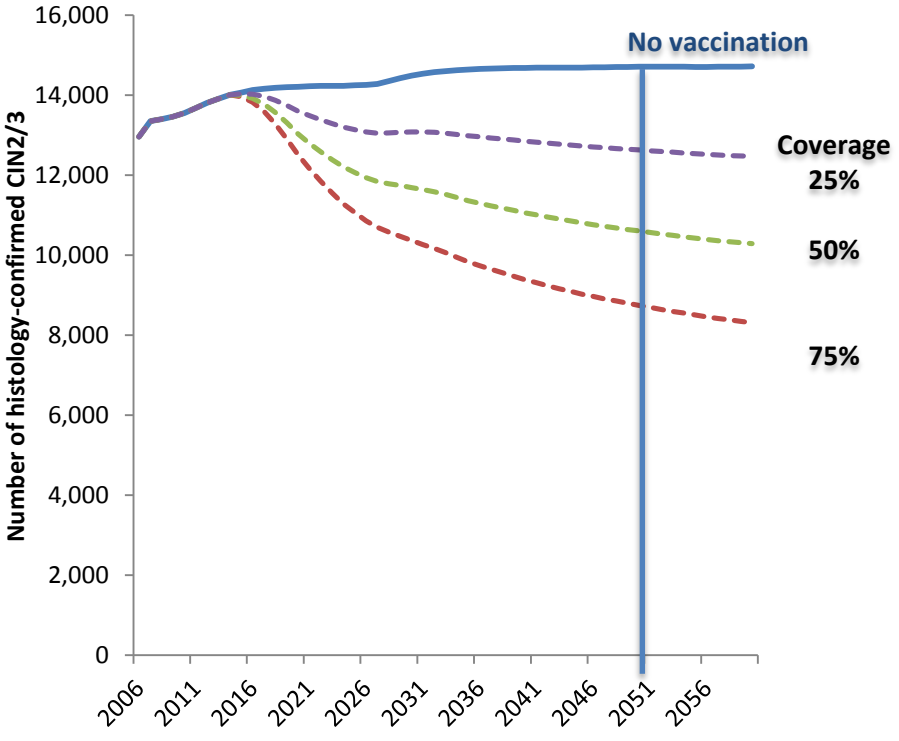


Source: National Immunisation Register, Feb 2013

Preliminary results: Predicted CIN2/3



Rates



Case numbers

By 2050, in the vaccinated population (coverage range 25-75%):
- Annual number of histologically-confirmed CIN2/3 will decrease by 19-44%
- Annual number of colposcopy referrals will decrease by 9-25%
- Annual treatments for CIN will decrease by 12-35%

K. Canfell, JB Lew, M. Clements , M Smith, J Harris et al, 2012

Preliminary results: Cost-effectiveness of screening

	No vaccination	With Vaccination @25%	With Vaccination @50%	With Vaccination @75%
Cost per LYS	$19,545	$22,888	$27,571	$34,247
Cost per QALYS	$22,166	$26,961	$34,331	$46,421
Cost per cancer case prevented by screening	$27,094	$32,191	$39,531	$50,306
Cost per cancer death prevented by screening	$57,535	$68,444	$84,178	$107,230

Likely to be cost-effective

Decreasing cost-effectiveness of cervical screening

Unlikely to be cost-effective

- Cost per QALY can be compared to an indicative willingness-to-pay threshold of NZ$20,000
- June 2012

K. Canfell, JB Lew, M. Clements , M Smith, J Harris et al, 2012

Summary

- Background ✓
- NCSP today ✓
- Challenges ✓
- Planning for the future ✓

Watch this space!

Thank you for your attention!

MINISTRY OF HEALTH
MANATŪ HAUORA

NATIONAL cervical SCREENING PROGRAMME