Cancer Screening:

Gaps, Challenges and Opportunities

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Background

- early detection is an important component of cancer control
- well-organised screening can reduce mortality and morbidity due to cancer
- screening is expensive: investments need to be balanced with other approaches to cancer control

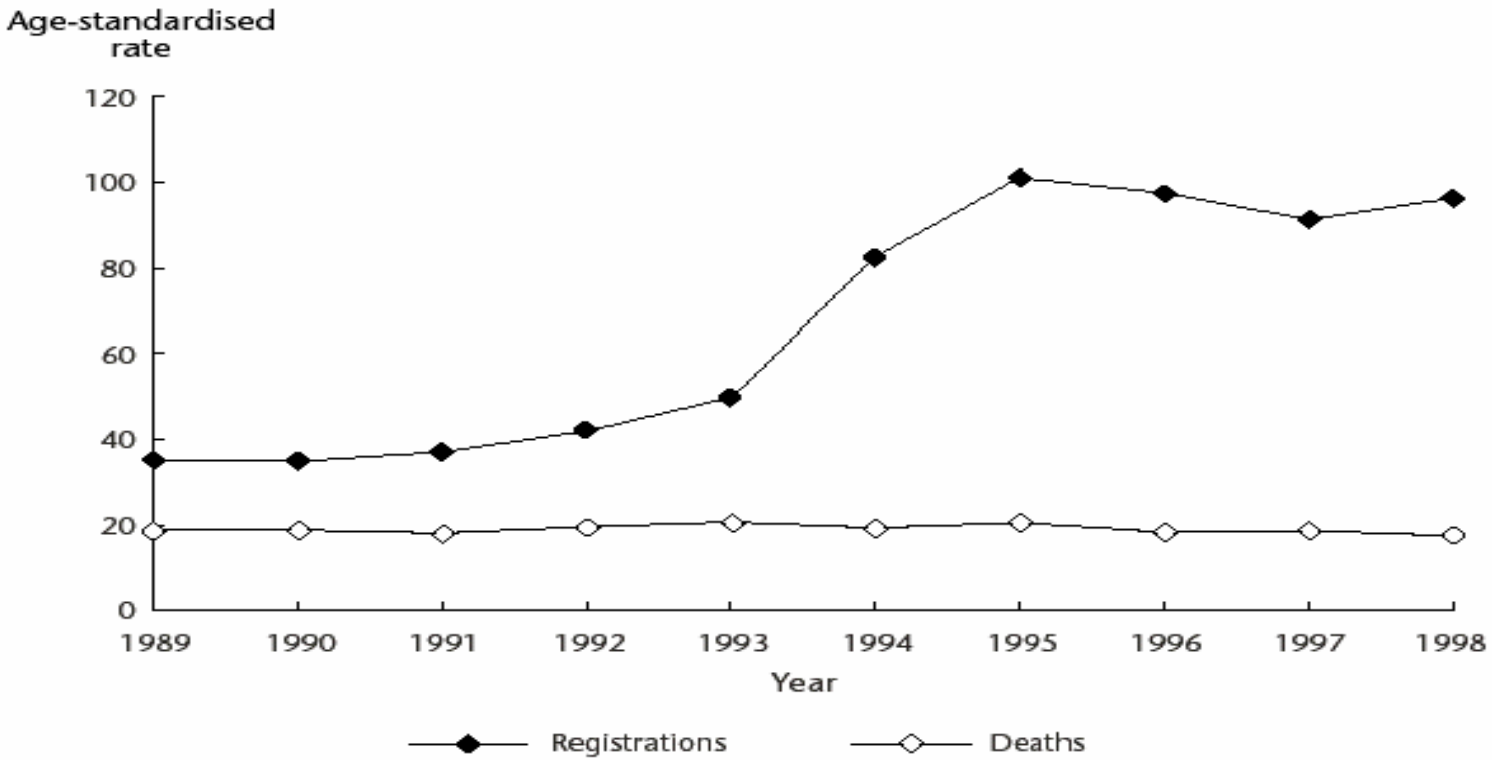
Current screening programmes - challenges

- Cervical cancer screening programme (NCSP)
  - manage the introduction of new technologies eg Human Papilloma Virus (HPV) testing
  - re-examining screening intervals and the screening age range.
- Breast cancer screening programme (BSA)
  - implementation of age extension 45-69 years/workforce
  - managed introduction of new technologies, eg, digital mammography
  - improved treatments, eg taxanes, less invasive surgery.

The basis for choosing screening programmes

“All screening programmes do harm; some can do good as well”

Cancer of the prostate (ICD code 185)



Screening for Lung Cancer

- high risk group can be readily identified
- small tumours can be detected early
- four RCTs in the 1970s using X-rays failed to show reduced mortality
- trials of new imaging technology show improved sensitivity, but still no evidence of better survival

Colorectal cancer screening

- 1998 – NHC recommendation against population screening for CRC
- Evidence that screening can reduce mortality from CRC (pilots UK and Australia)
- NSU and NSAC to re-examine CRC screening in NZ

Prostate cancer screening

- **Challenges**
  - effectively conveying information about risks
  - assisting doctors and men to deal with the current uncertainty
  - responding to misconceptions about prostate cancer and screening
- **Opportunities**
  - results from RCTs now underway may provide greater certainty about benefits
  - the high profile of screening may hasten improvements in treatment and long term care

Skin cancer screening

- We lack evidence that screening for melanoma reduces mortality & need better information also on cost effectiveness, risks and limitations
- But it happens anyway
- Less screening, but better screening, might be cheaper

Quality and screening programmes

“Screening programmes shown to be efficacious in a research setting require an obsession with quality to be effective in a service setting”

Treatment of prostate cancer - side-effects

Surgery

- Impotence 30-70%
- Incontinence (any) 20-30%
- Mortality 1-2%

Radiotherapy

- Impotence 40-60%
- Incontinence 2-6%

JNCI 2000;92:1582

Screening and the Inverse Care Law

“Screening programmes are an excellent example of the inverse care law”

Breast cancer incidence and mortality

	incidence	mortality
Australia	96.7	24.5
New Zealand	97.8	31.4
- non-Maori	97.9	30.4
- Maori	91.2	41.4

Reference: Skegg & McCredie NZMJ 2002;115:205

Cancer screening: the challenges

- Picking programmes that pay
- Sustaining quality
- Achieving equity