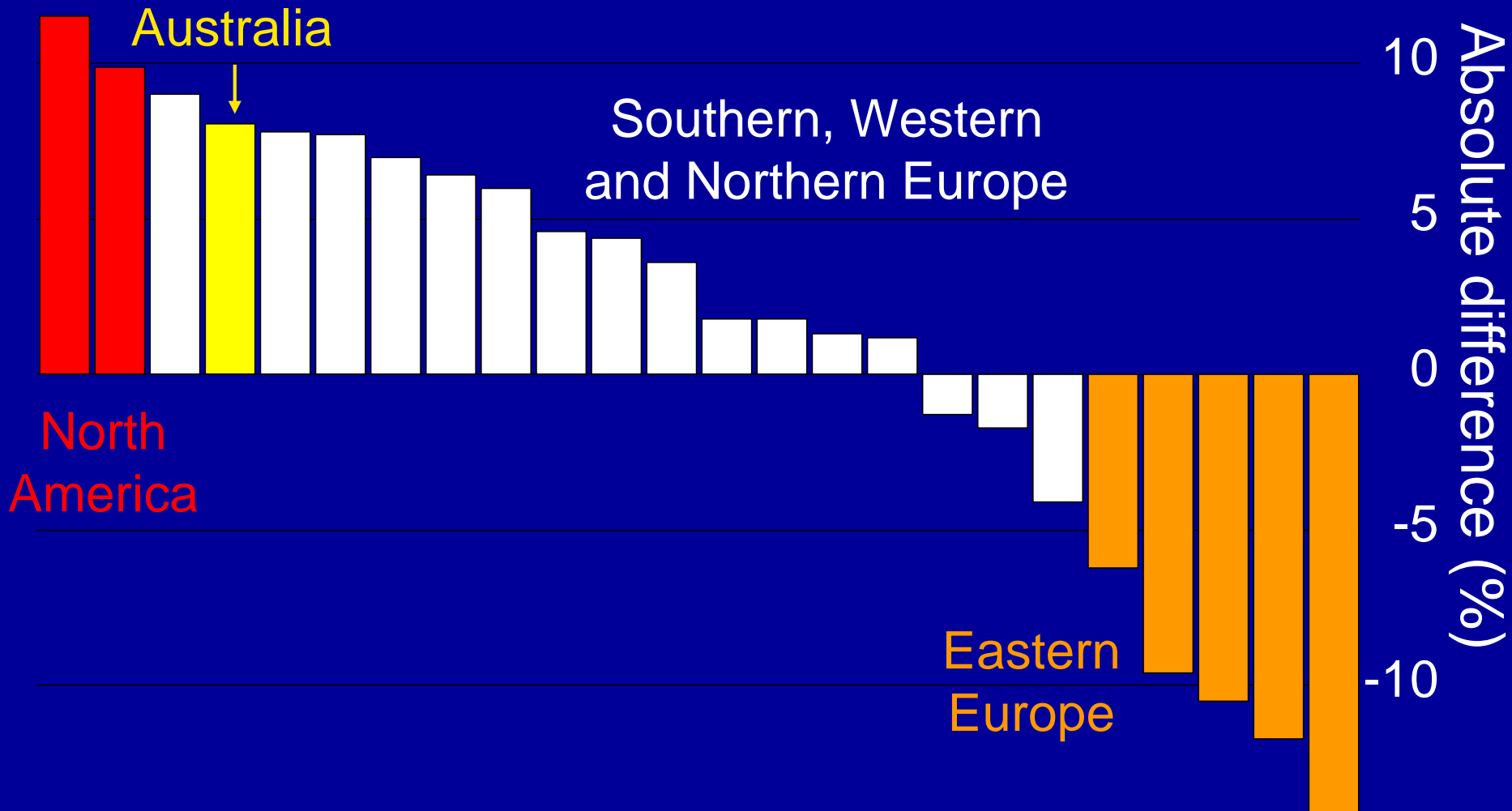


Large differences in breast cancer survival between Australia and England

a comparative study using
cancer registry data

UICC Conference, Geneva, 28th August 2008

International differences in five-year survival compared to England and Wales (baseline)



Material

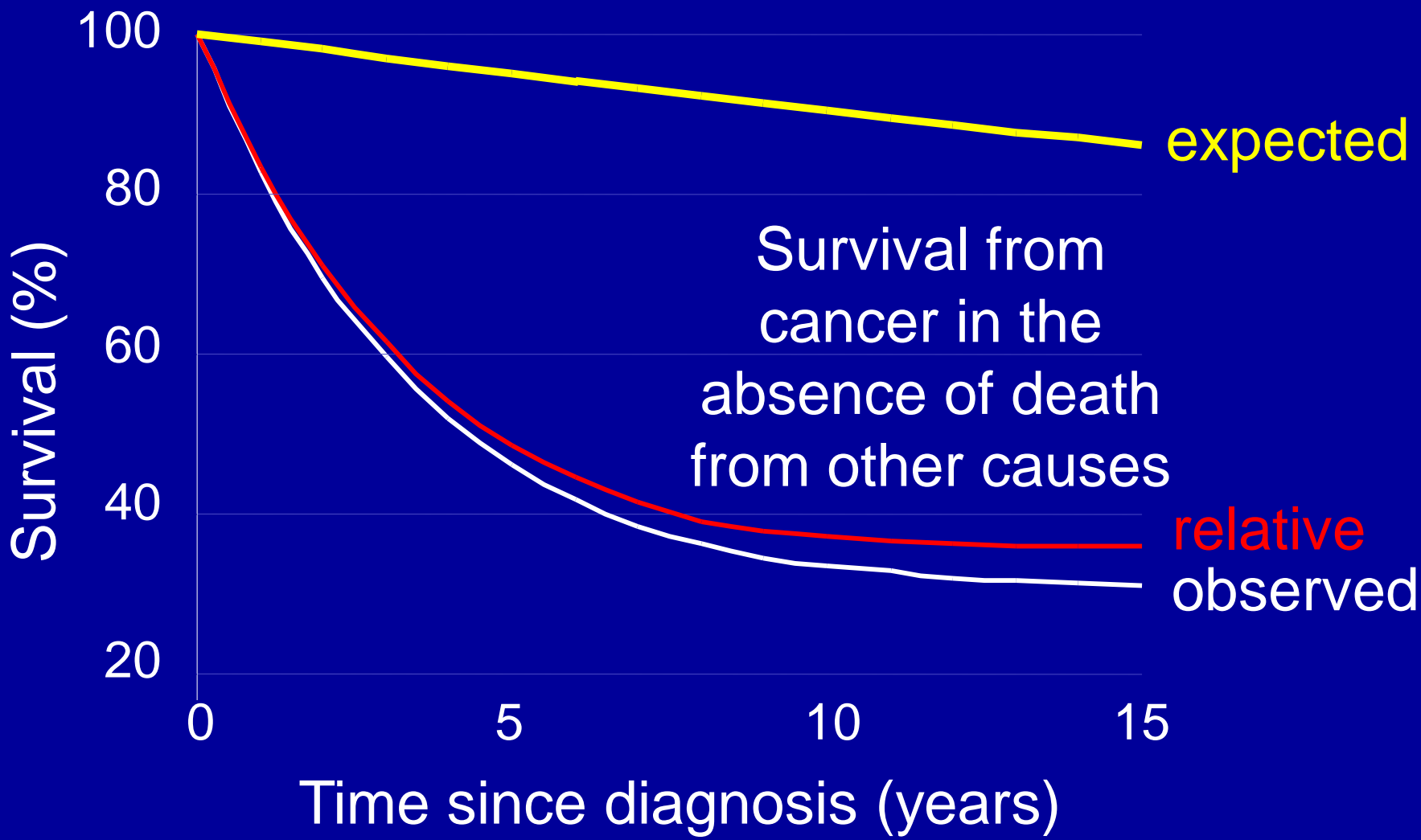
- **Cancer registry data**
 - **Women aged 15-99 diagnosed with breast cancer**
 - **Australia and England (1990-1994)**
 - **New South Wales and West Midlands (1980-2002)**
 - **Patient demographics, tumour characteristics**
 - **Ecological deprivation scores (unemployment)**
- **Life tables: 1991, 2001**

Methods

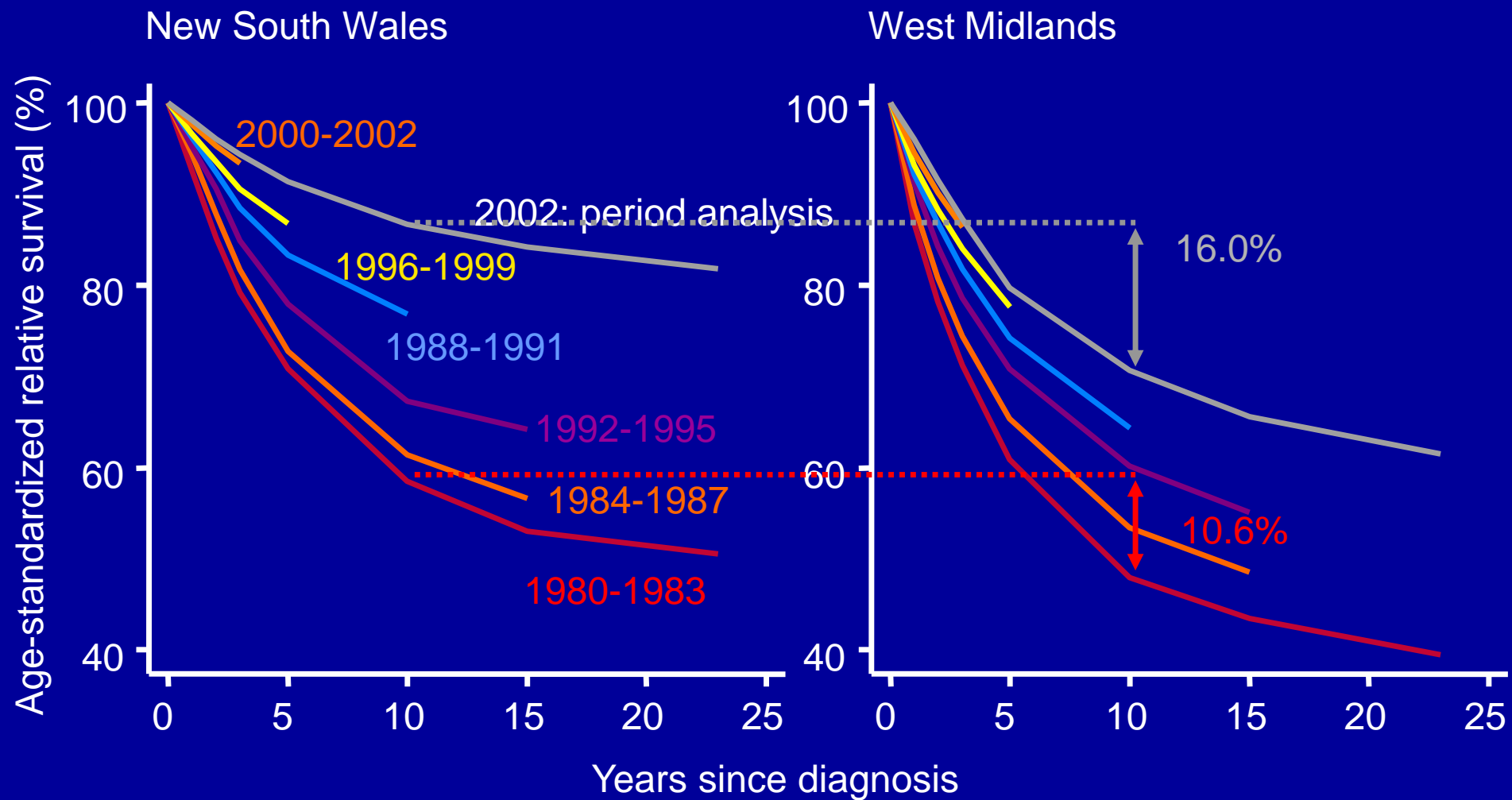
Relative survival

- Probabilities
- Excess hazard ratio

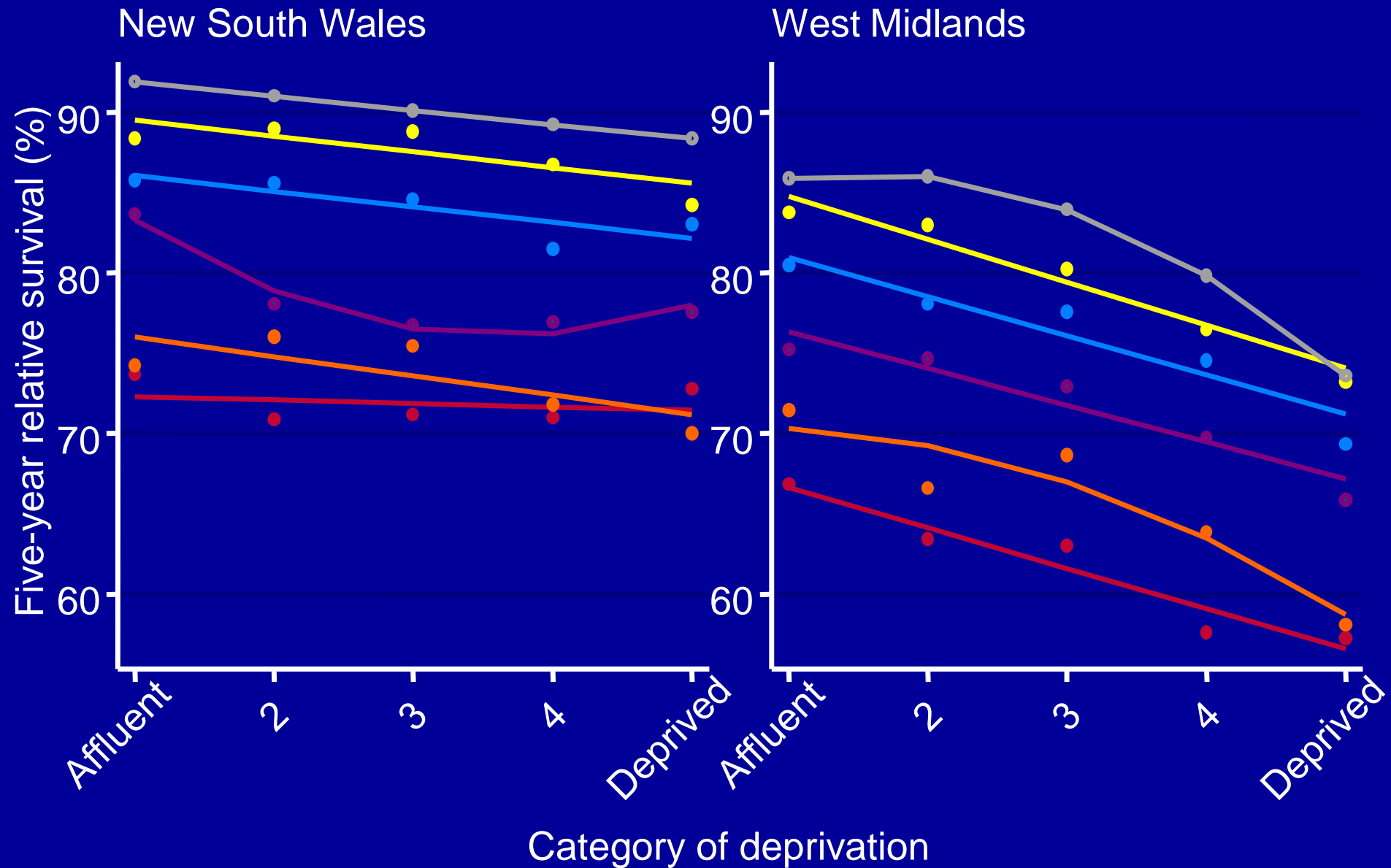
Methods



Results



Results



Results - patterns

- **Survival higher in New South Wales and Australia**
- **Deprivation 'gap' wider in West Midlands**
- **Survival much lower among elderly in West Midlands than New South Wales**
- **Extent-specific differences greater in New South Wales**

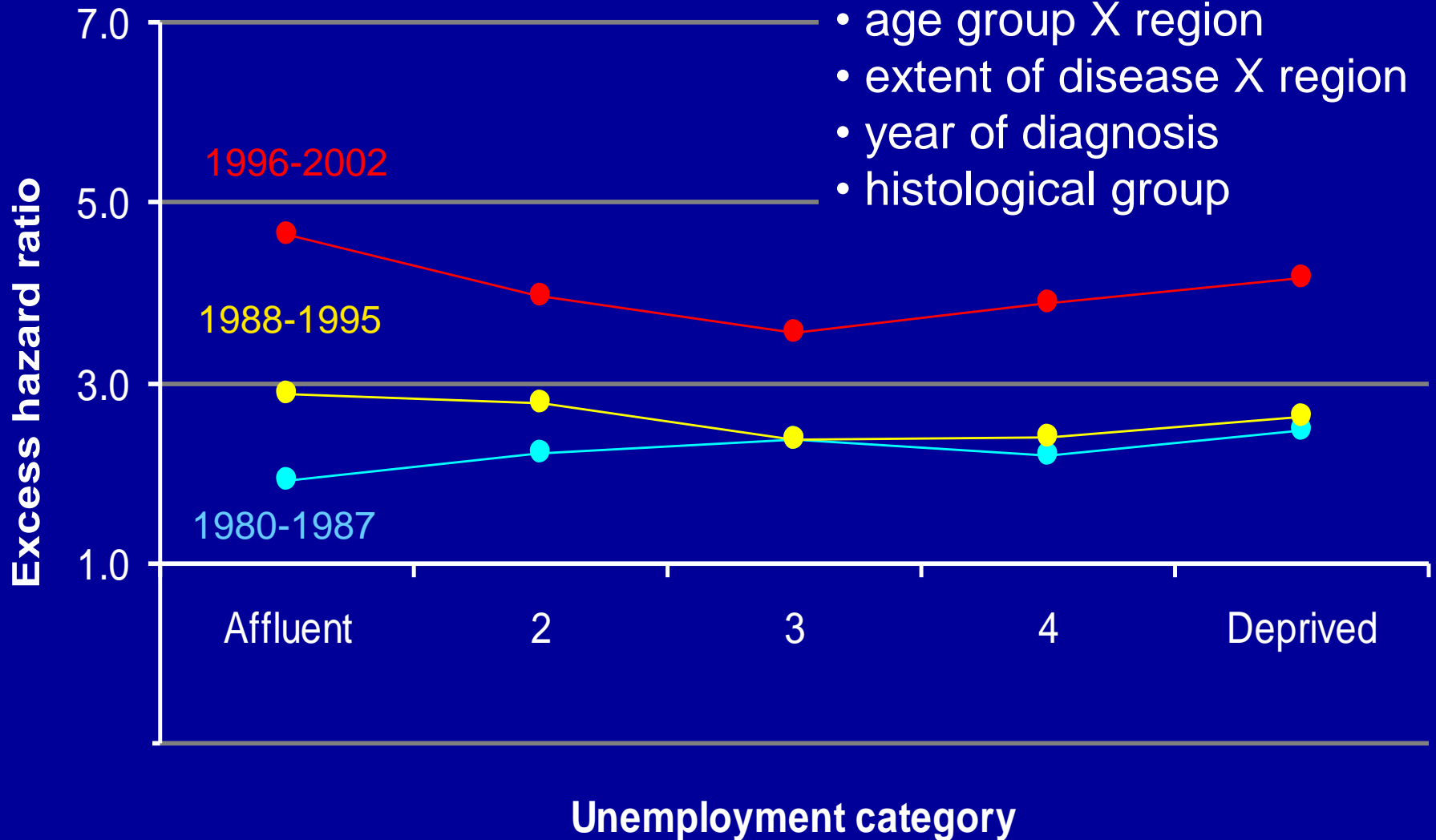
Results - explanations

- **International & socio-economic differences not fully explained by extent of disease**
- **No effect of age or histology**
- **Not explained by deprivation**

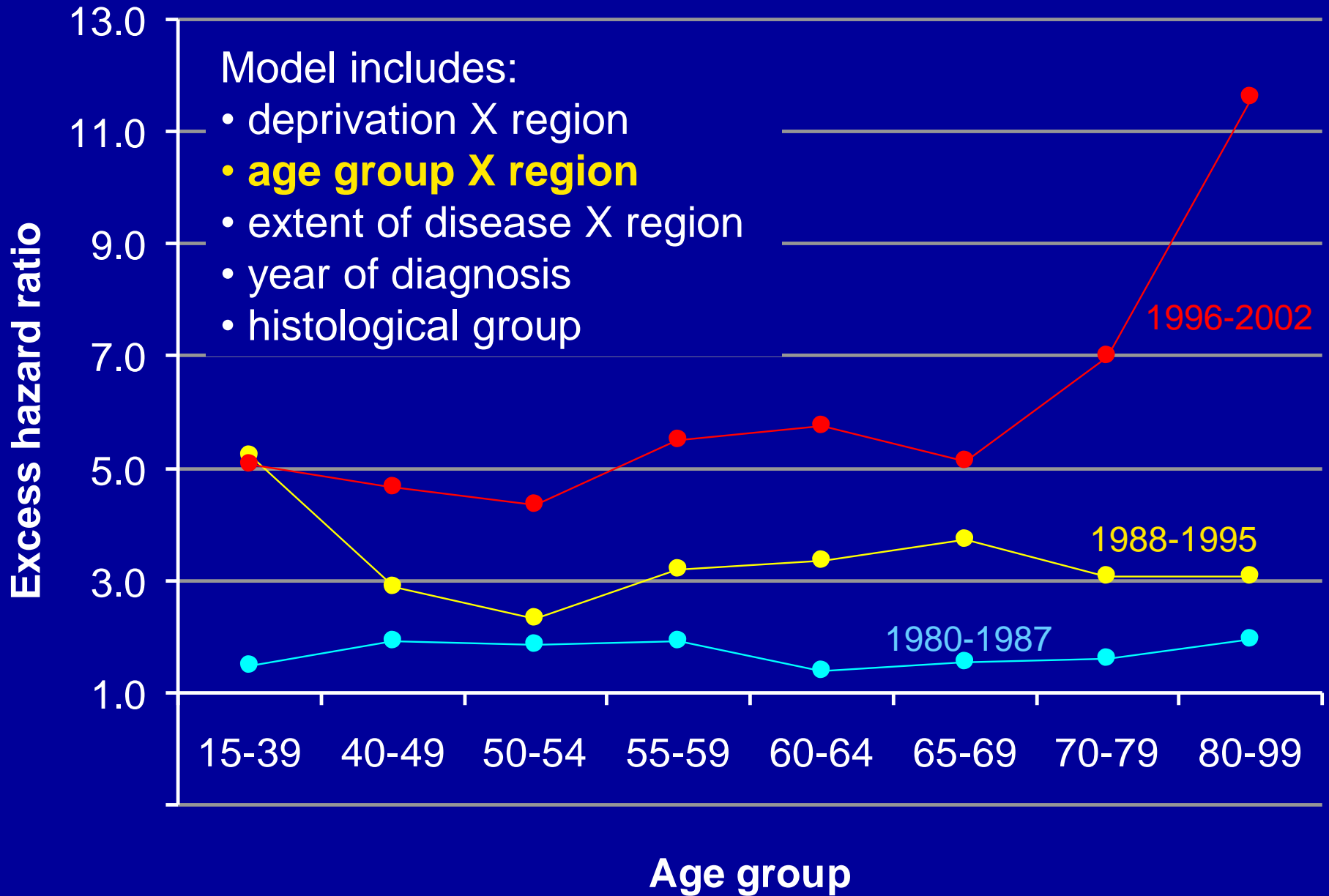
Up to one year after diagnosis

Model includes:

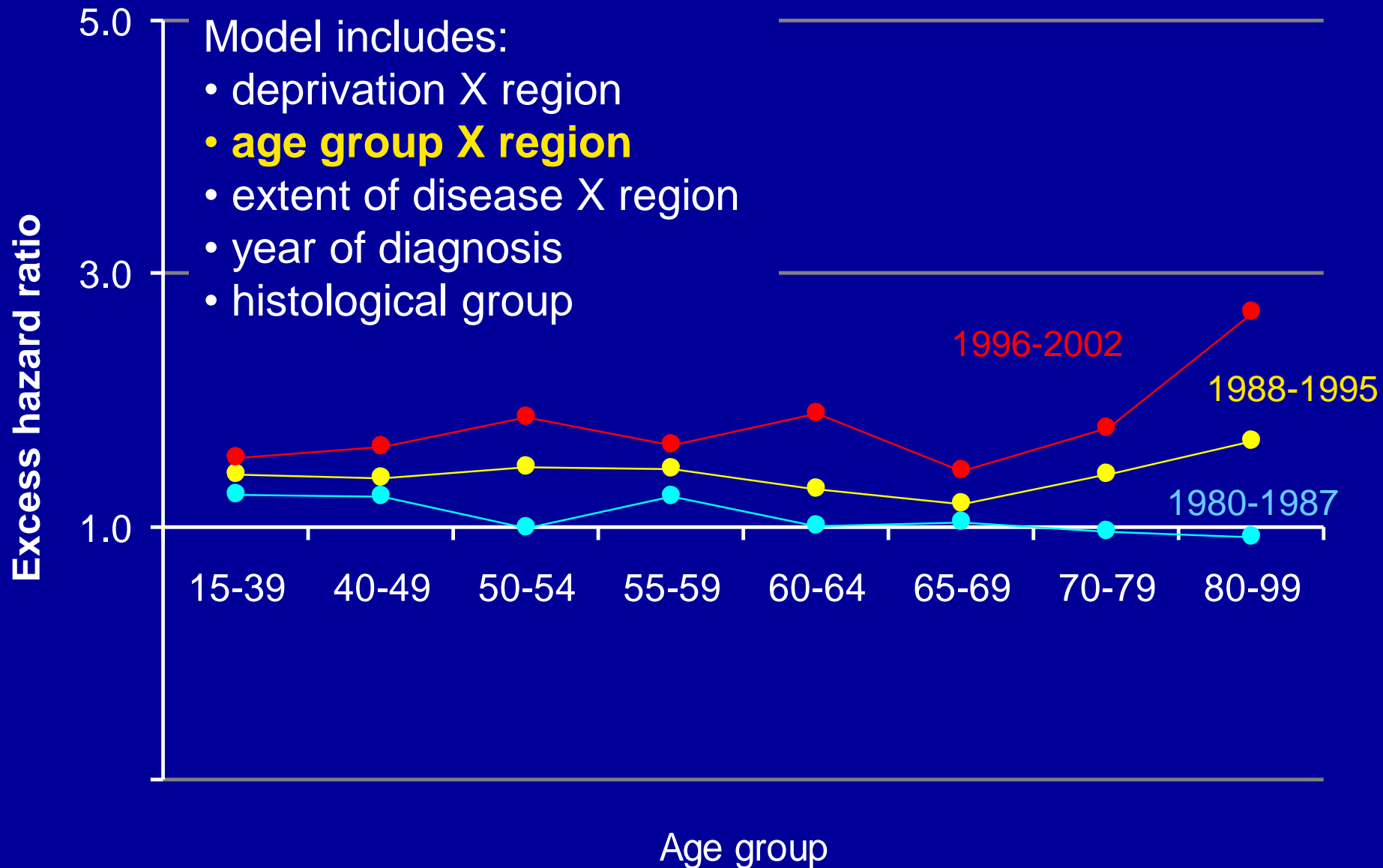
- **deprivation X region**
- age group X region
- extent of disease X region
- year of diagnosis
- histological group



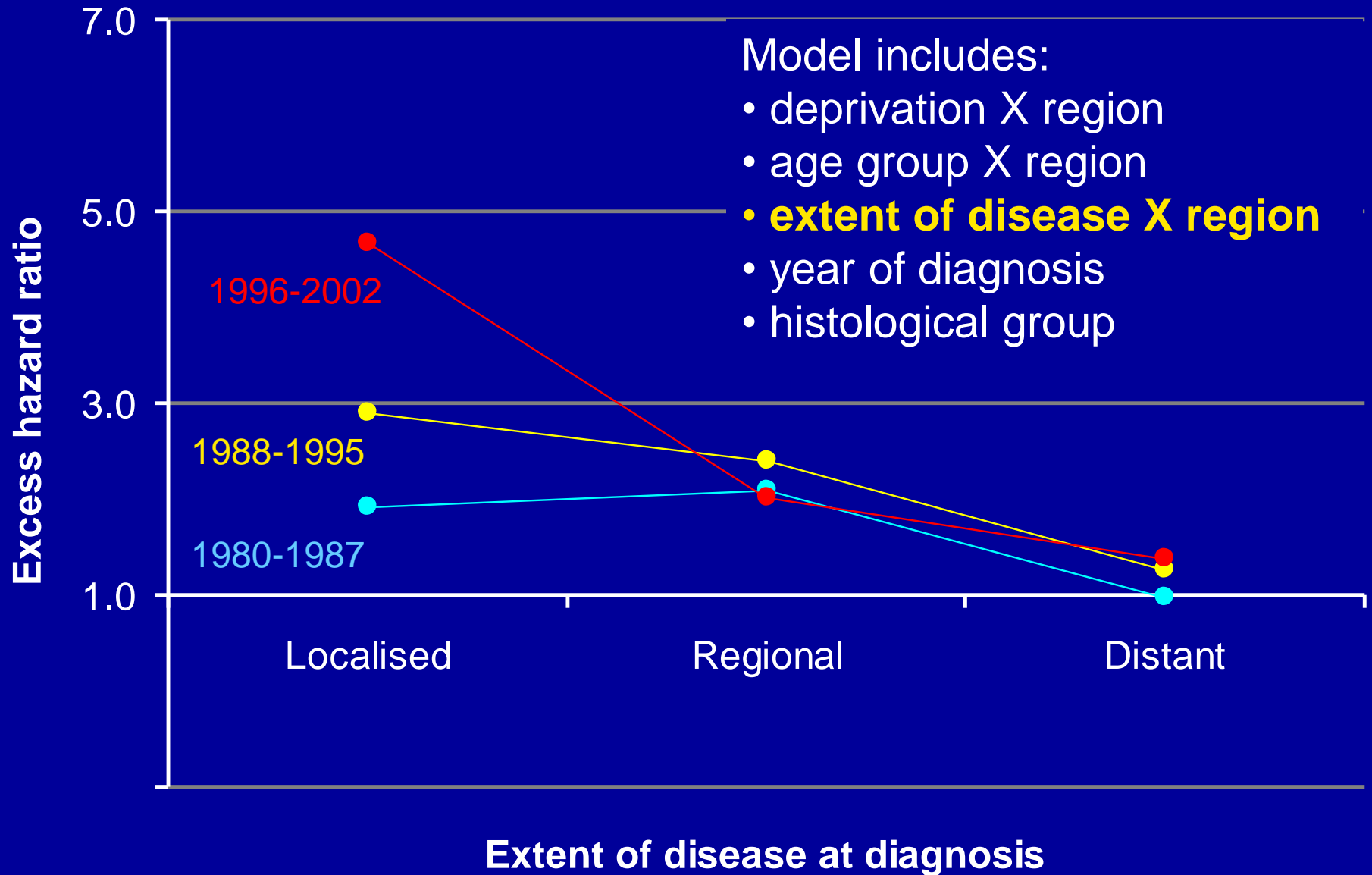
Up to one year after diagnosis



2nd-5th years after diagnosis



Up to one year after diagnosis



Some causal explanations

- **Delay in diagnosis – patient or system**
- **Treatment – type, delivery, compliance**
- **Nutritional status, co-morbidity**

Conclusions

- **Breast cancer survival differences exist**
- **Unlikely to be artefact**
- **May be treatment-related**
- **May also be partly related to delay
(patient, healthcare system)**