

*Solving Operational Bottlenecks to achieve the NSP targets for
Children Infected and Affected by HIV and AIDS*

Burden and Impact of HIV and AIDS in South African children

.... more questions
than answers

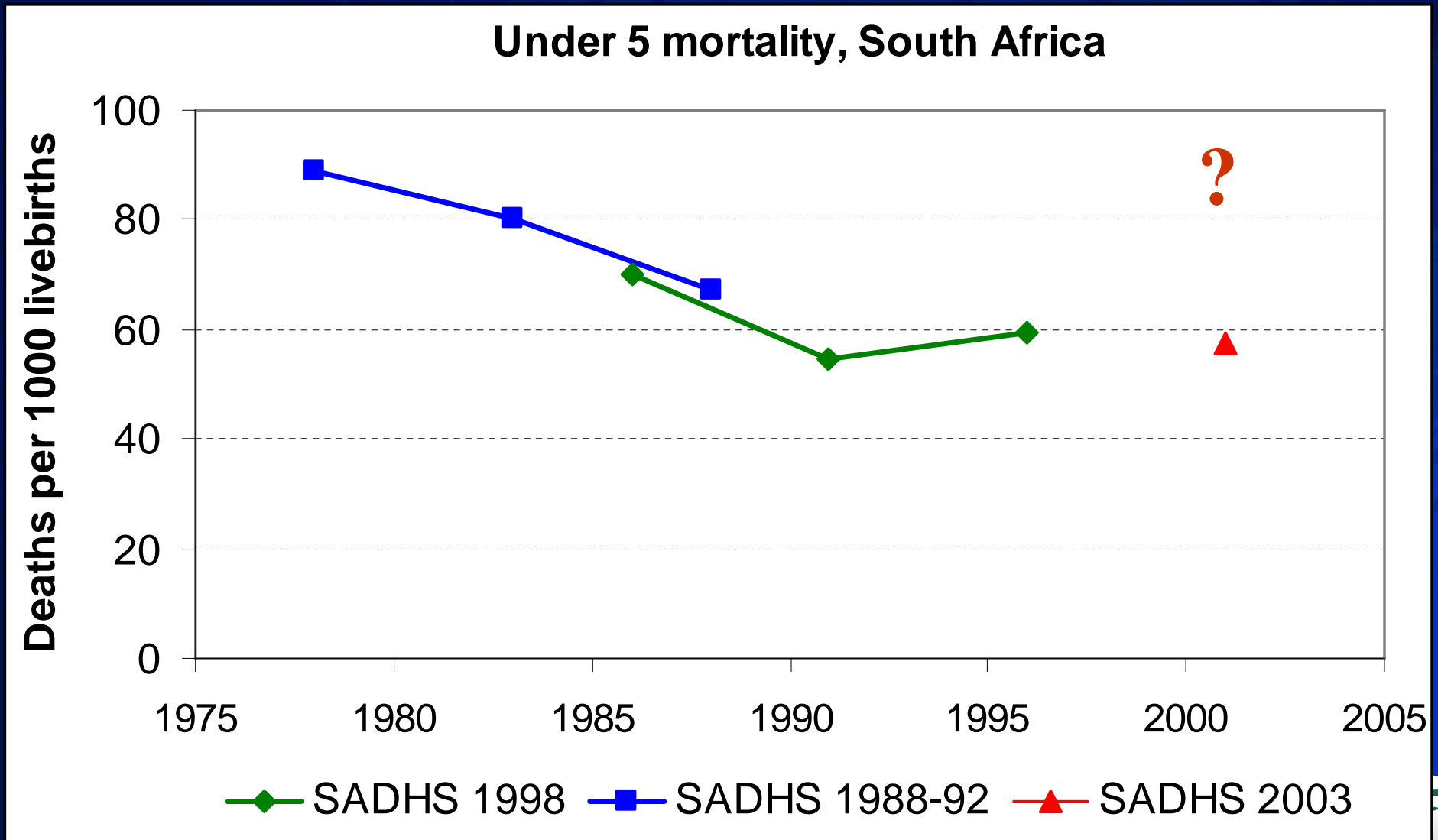
Debbie Bradshaw
Burden of Disease Research Unit



Outline of presentation

- What do we know about mortality in children?
- What do we know about prevalence in children?
- What do models say about the burden and impact of HIV and AIDS in children?
- What does this mean for monitoring the NSP?

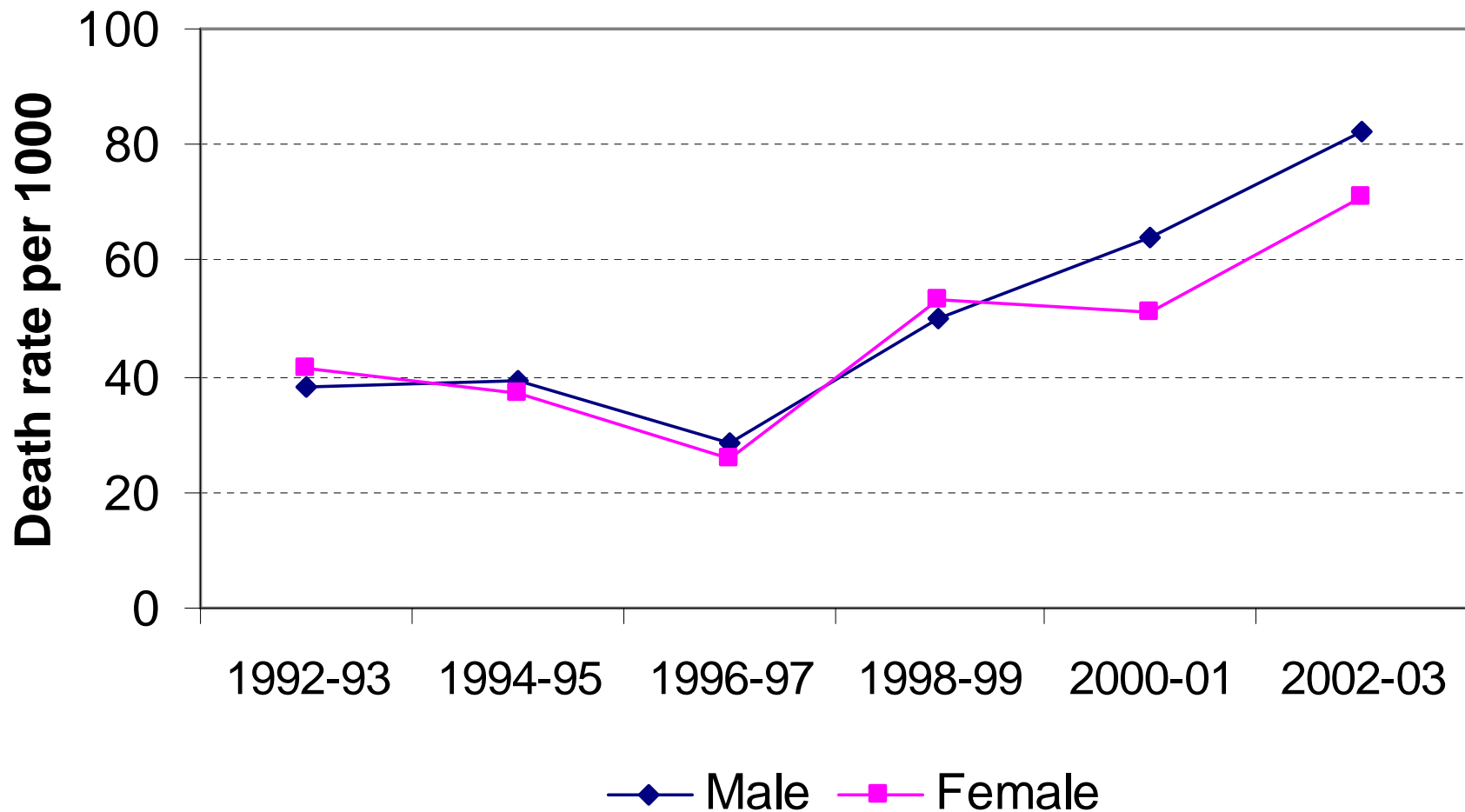
Demographic and Health Surveys



Source: Department of Health

Agincourt DSS

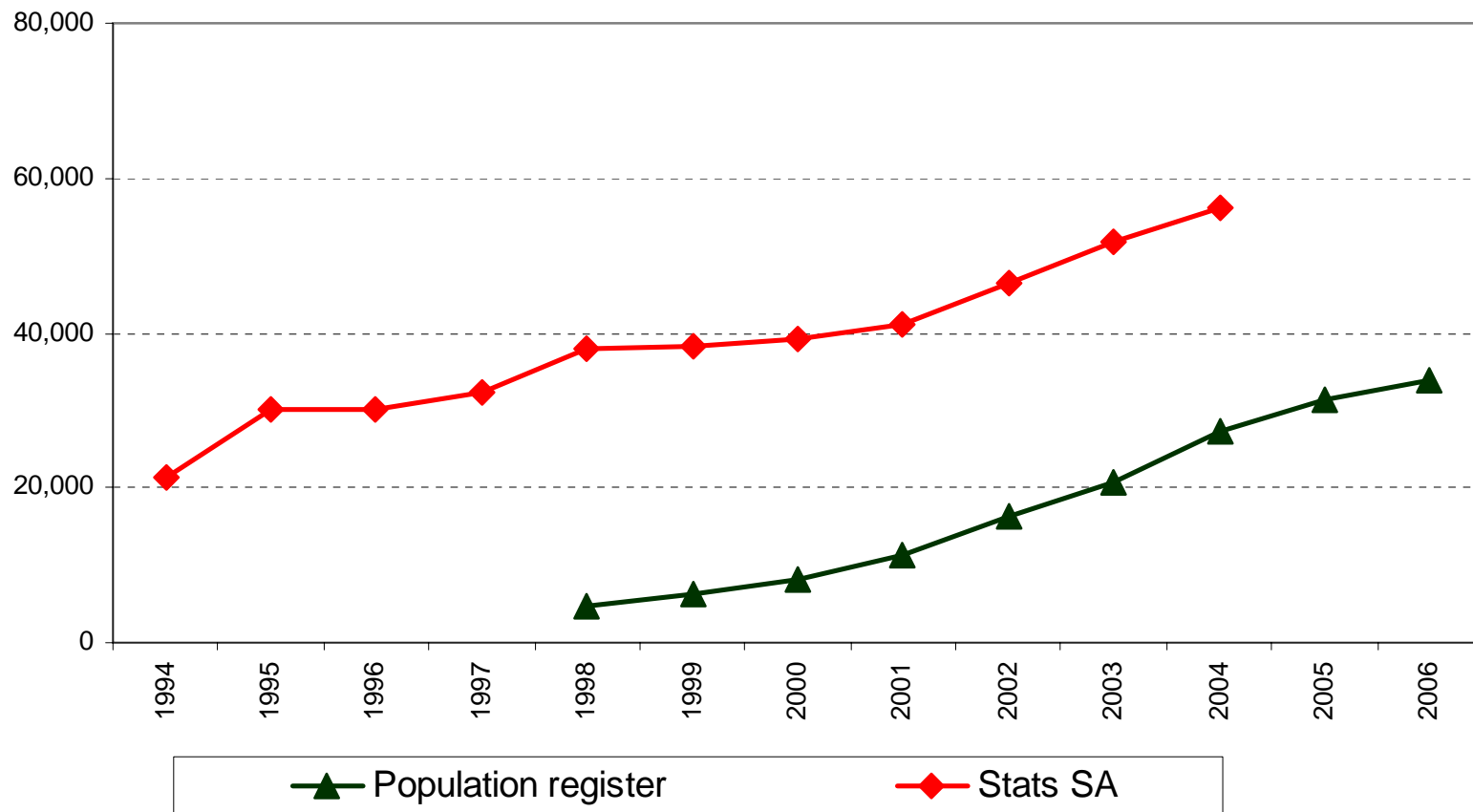
Death rate for children <5 years, Agincourt



Source: Kahn, 2006

Registered deaths of children <5

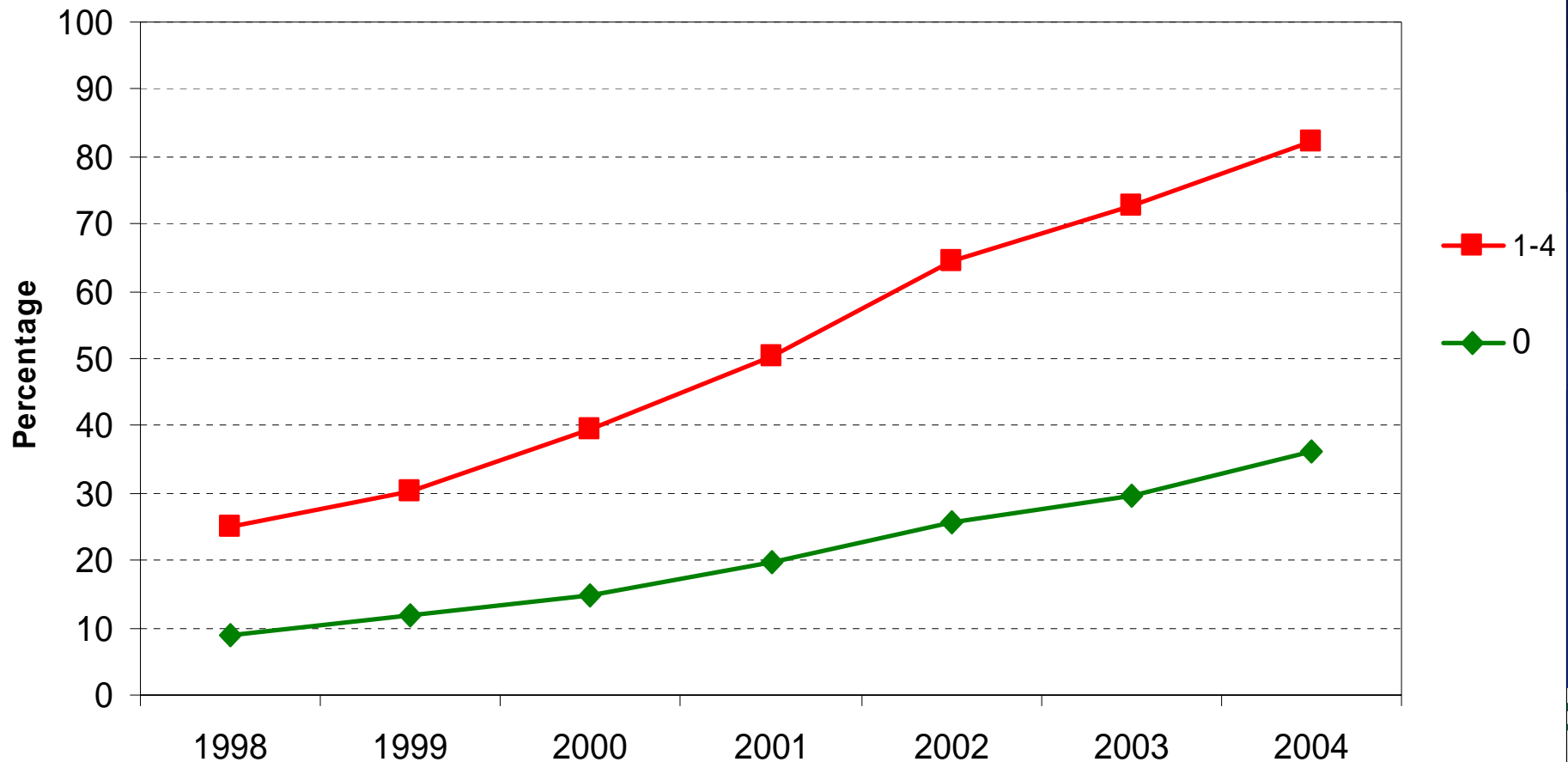
Number of deaths under-5 years of age
StatsSA and Population register



Source: Stats SA and MRC

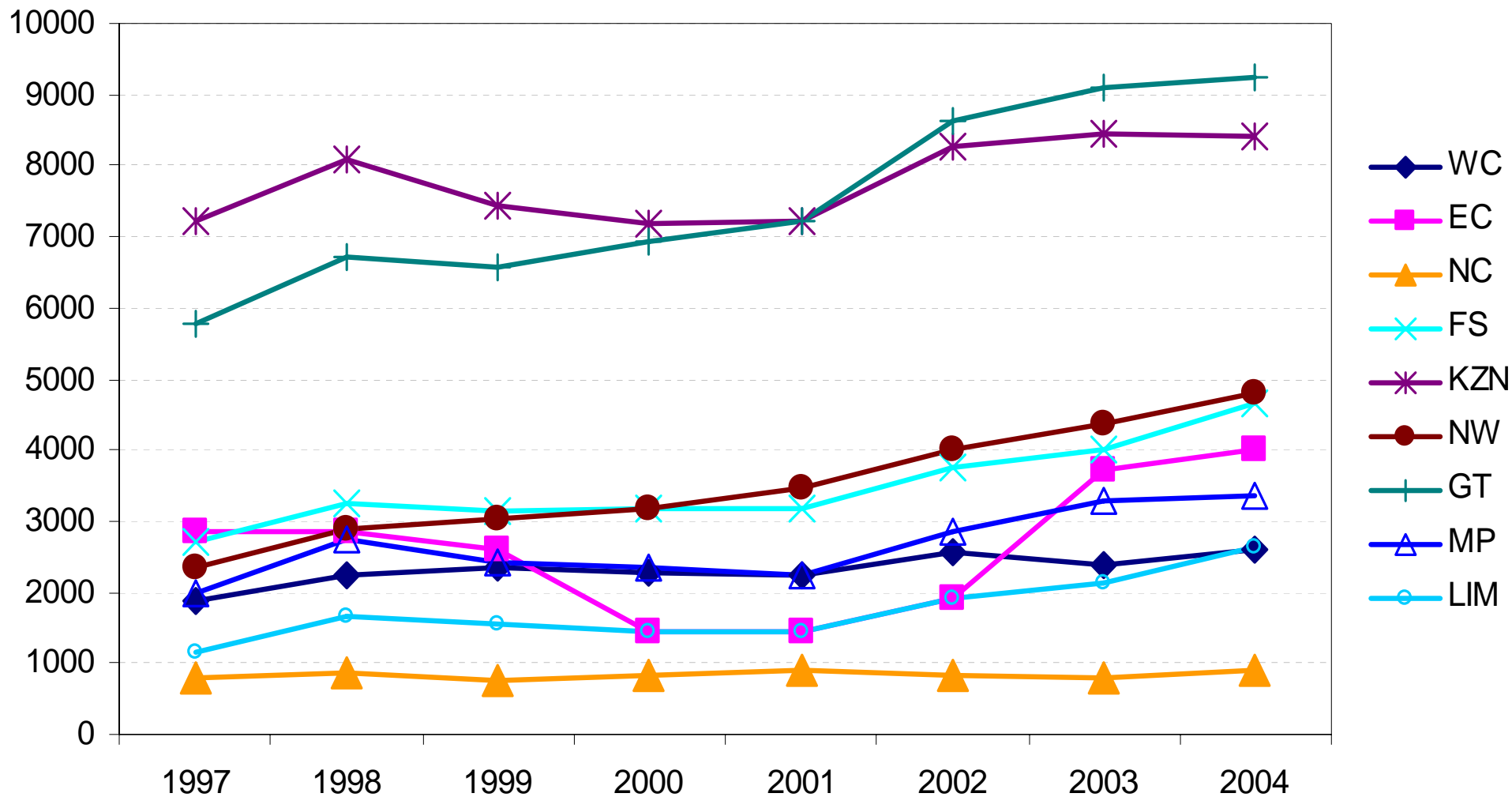
Completeness of population register

Completeness of < 5 population registration
HA compared with Stats SA data



Source: Stats SA and MRC

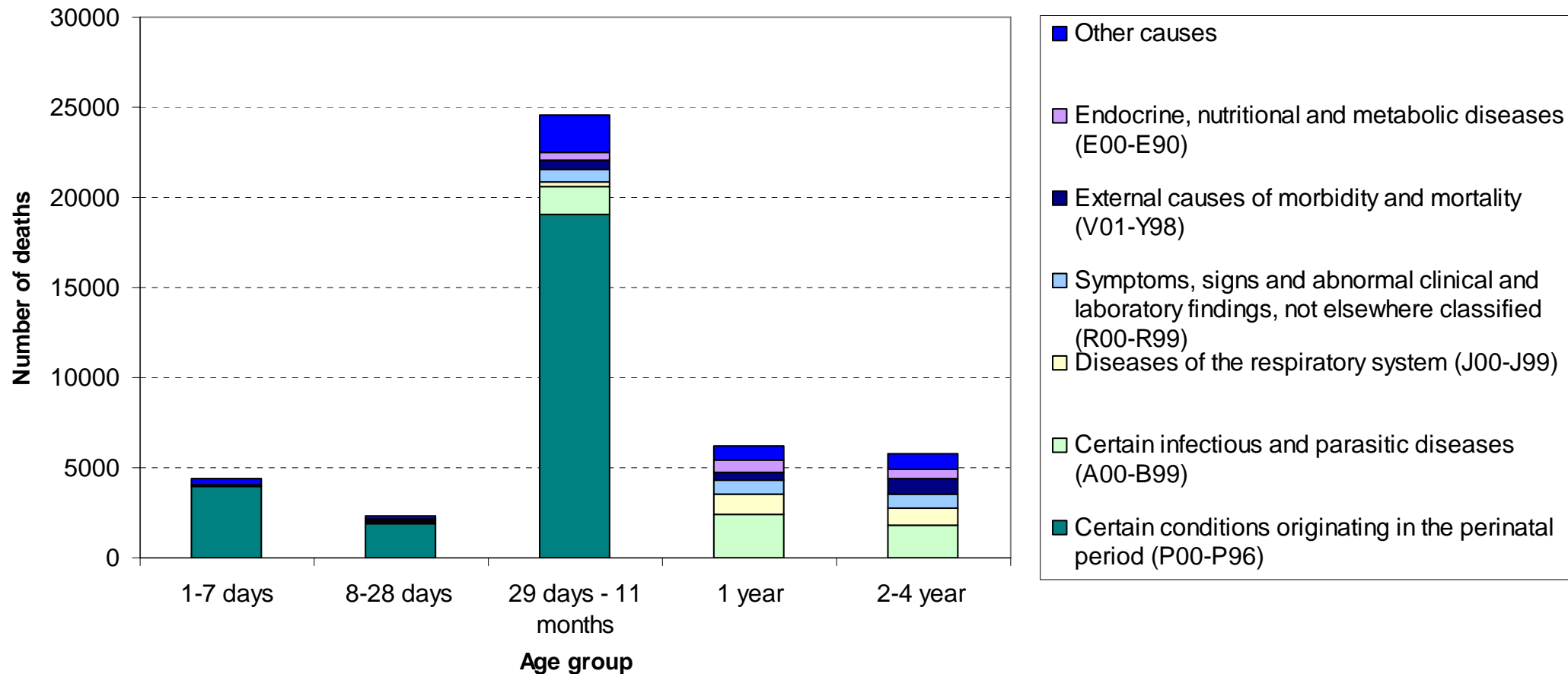
Under 1 Deaths - STATS SA



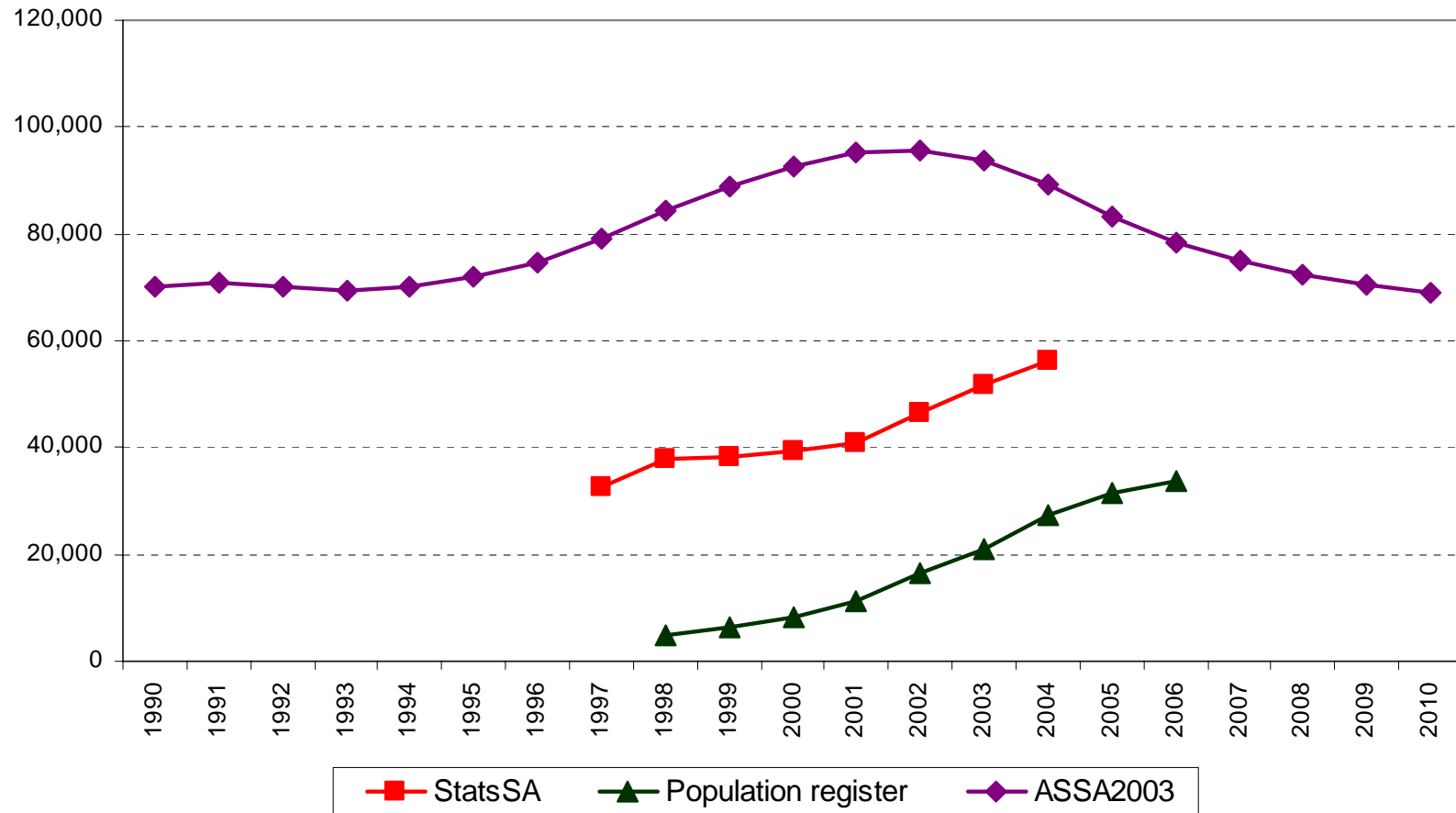
Source: Stats SA

Cause of death by age, 2002

Causes of death under-5 years by age in 2002, Stats SA

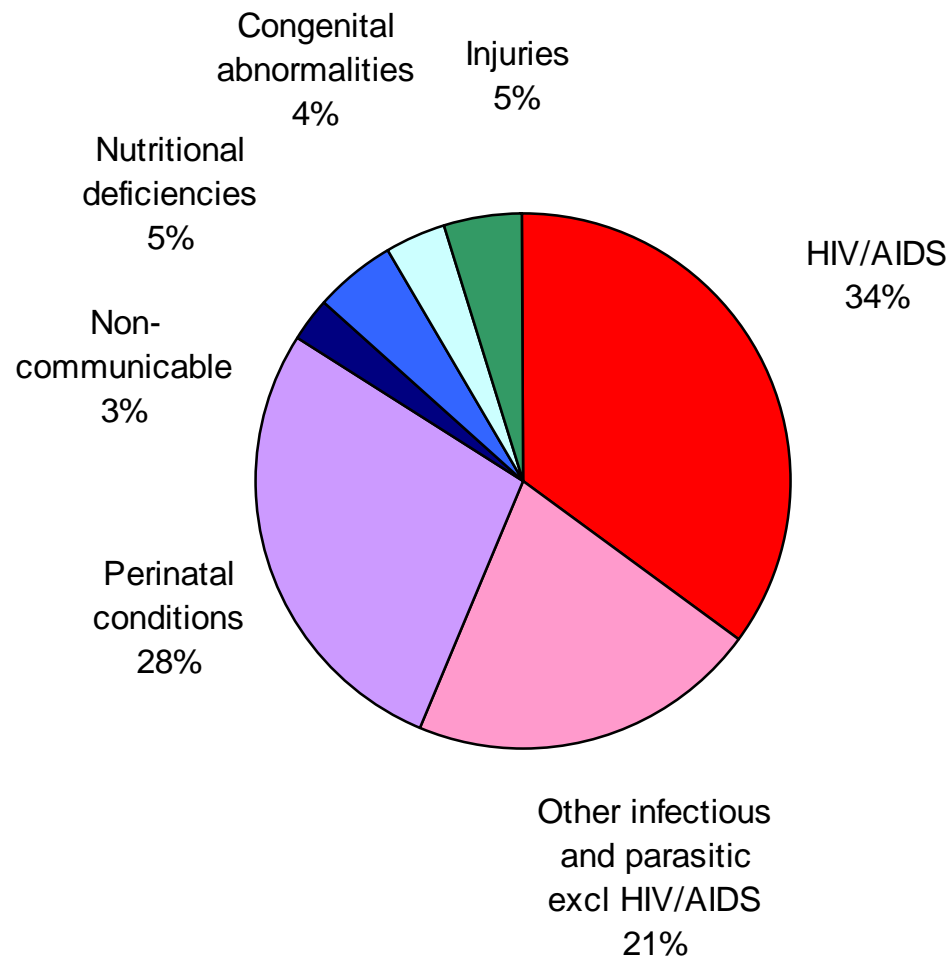


Number of deaths under-5 years of age ASSA2003, StatsSA and Population register



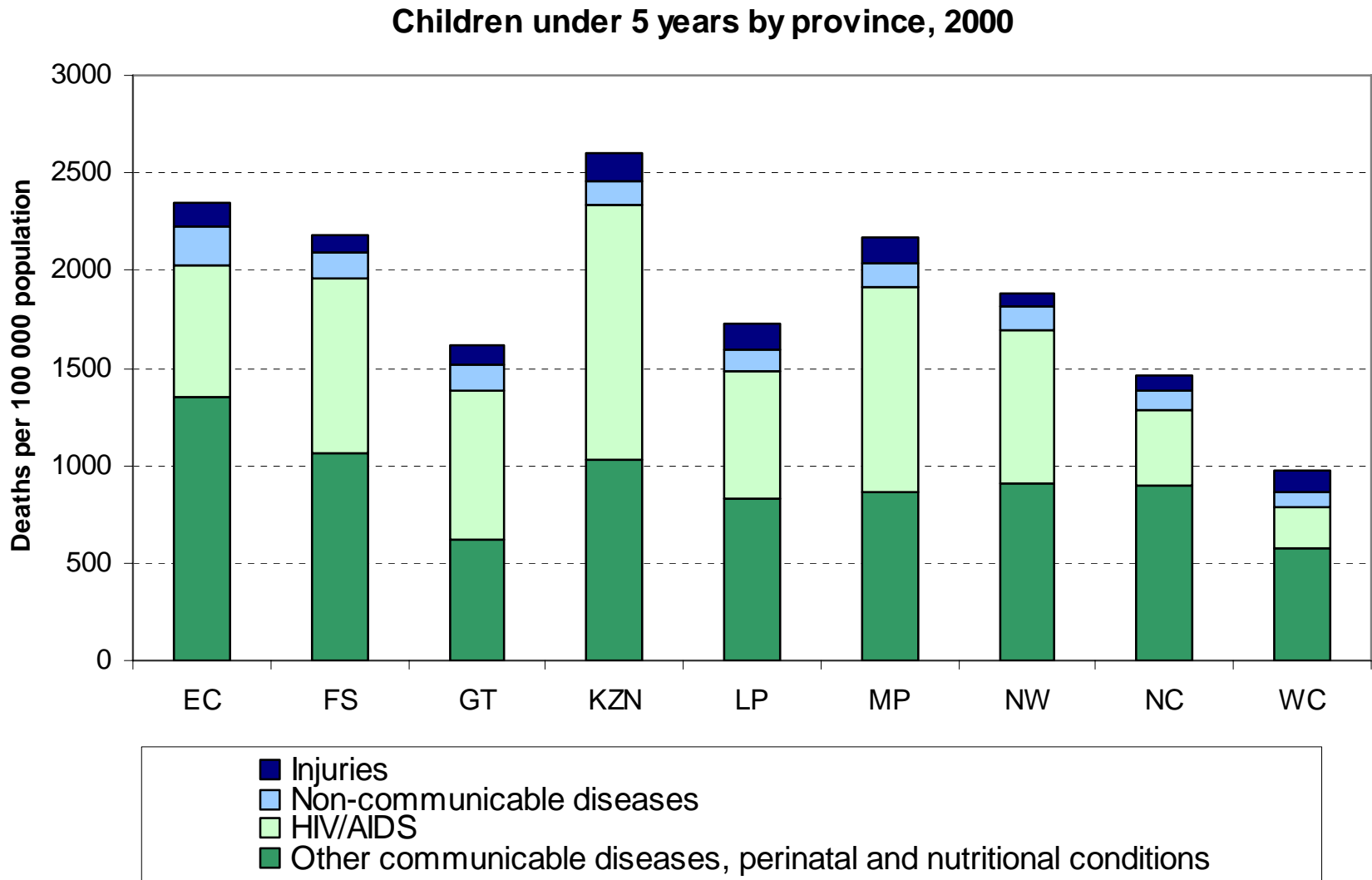
Source: ASSA2003, Stats SA and MRC

Estimated cause of death profile < 5 years, South Africa 2000



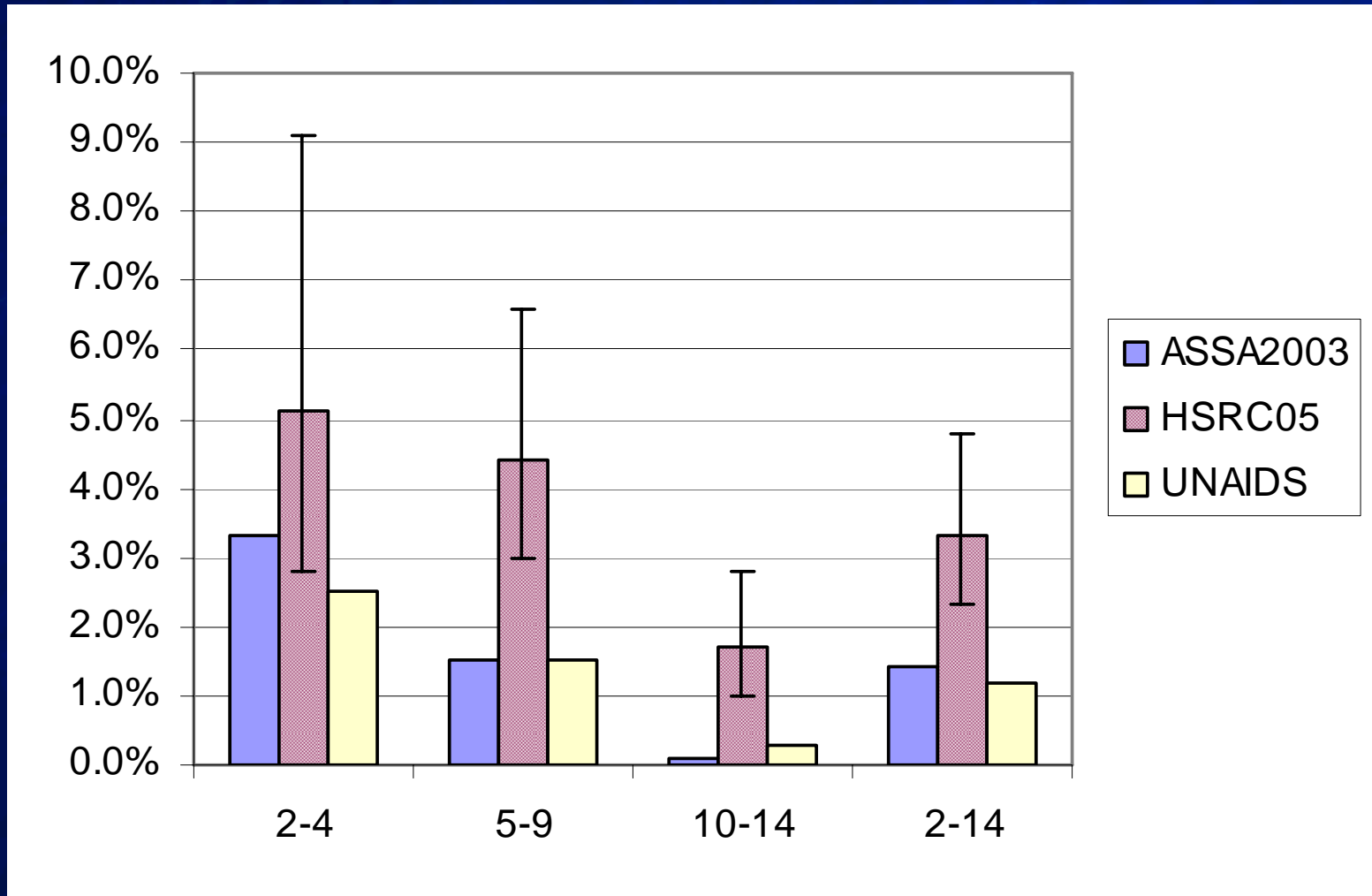
Source: Bradshaw et al., 2004

Estimated child mortality by province, 2000



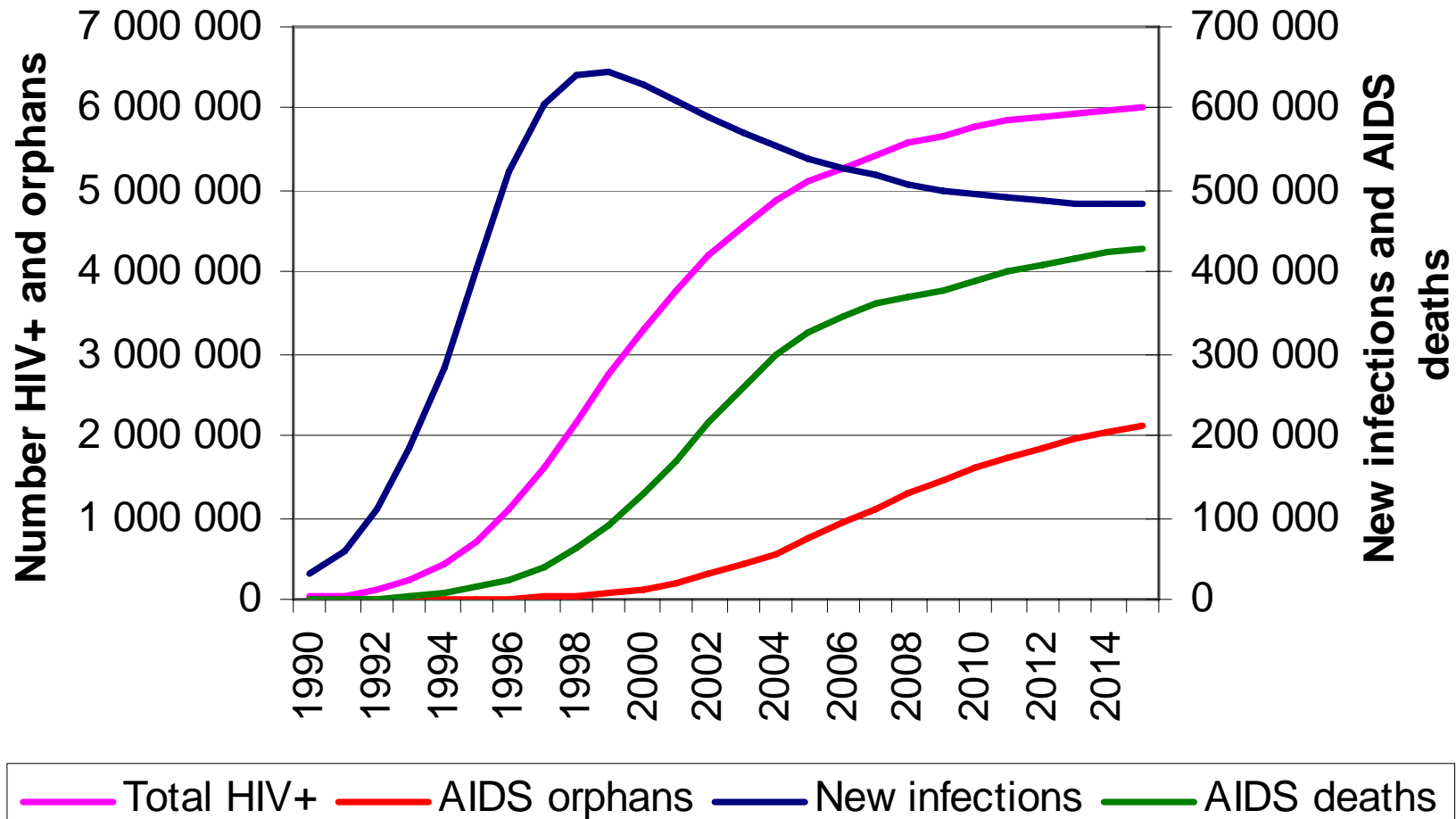
Source: Bradshaw et al., 2004

What do we know about the prevalence of HIV in children?



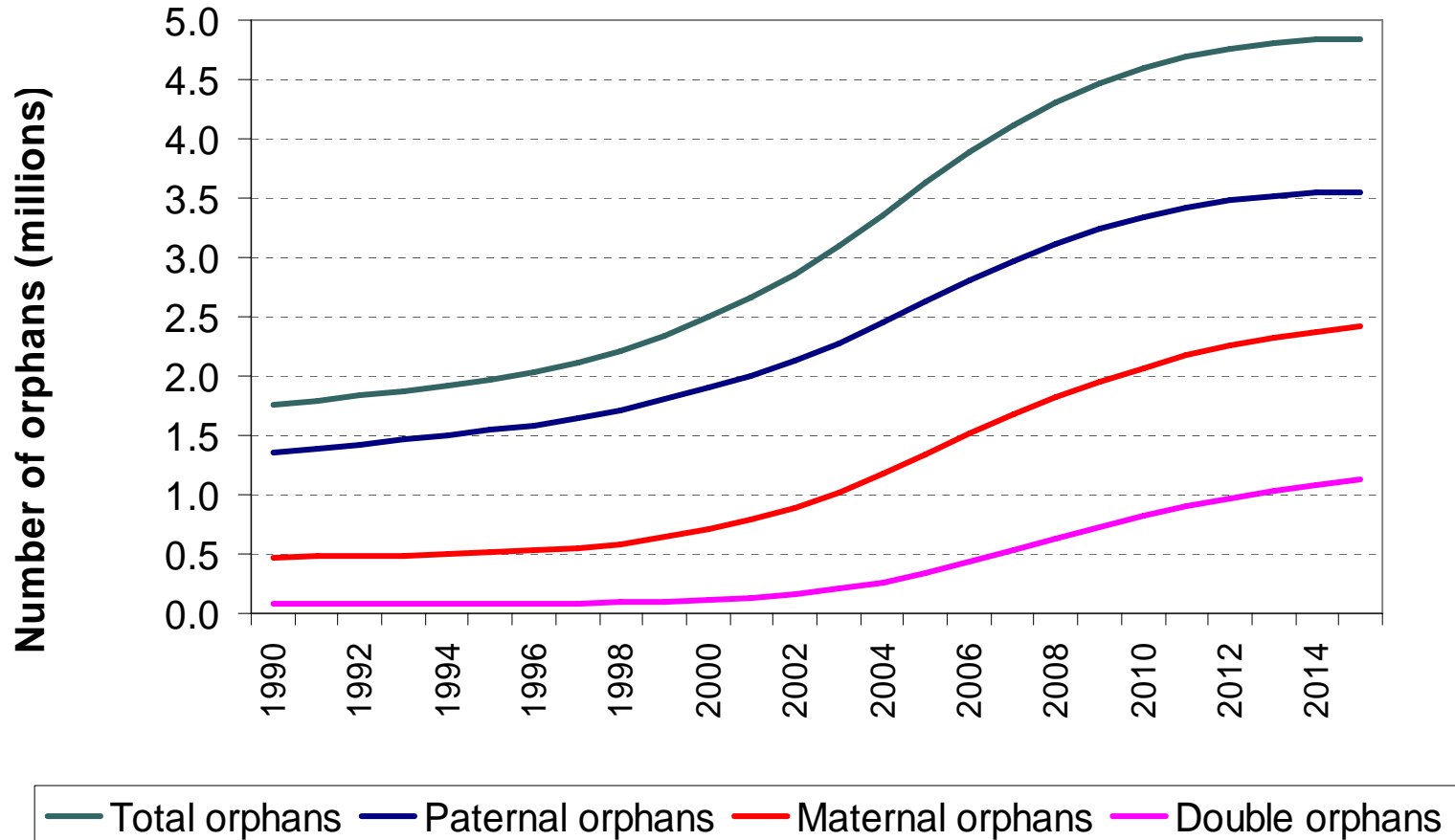
Source: ASSA2003, HSRC 2005, UNAIDS 2006

Projected impact of HIV - prevalence, incidence, AIDS deaths and orphans



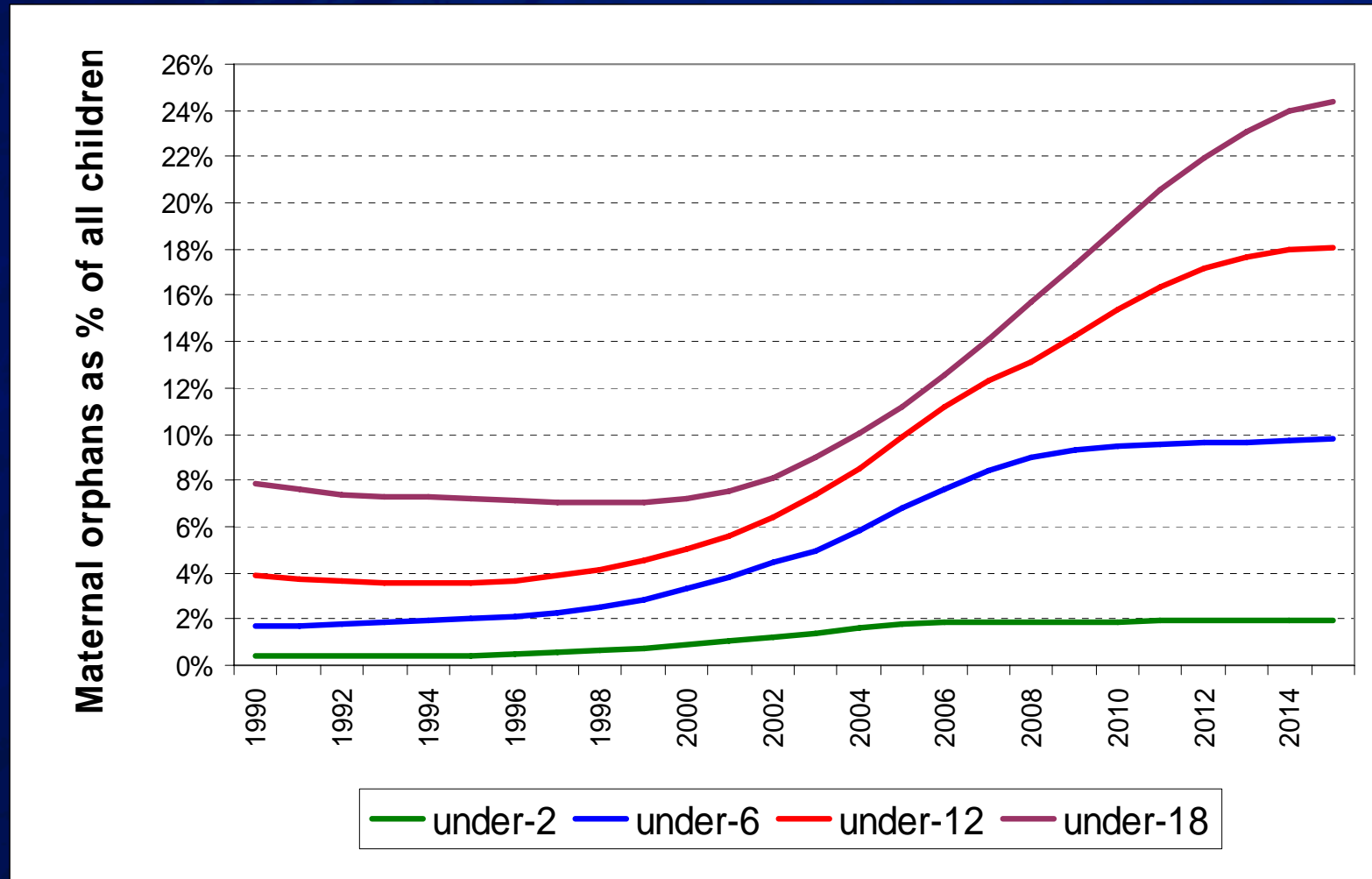
Source: ASSA2003

Projected number of orphans (under age 18 years)



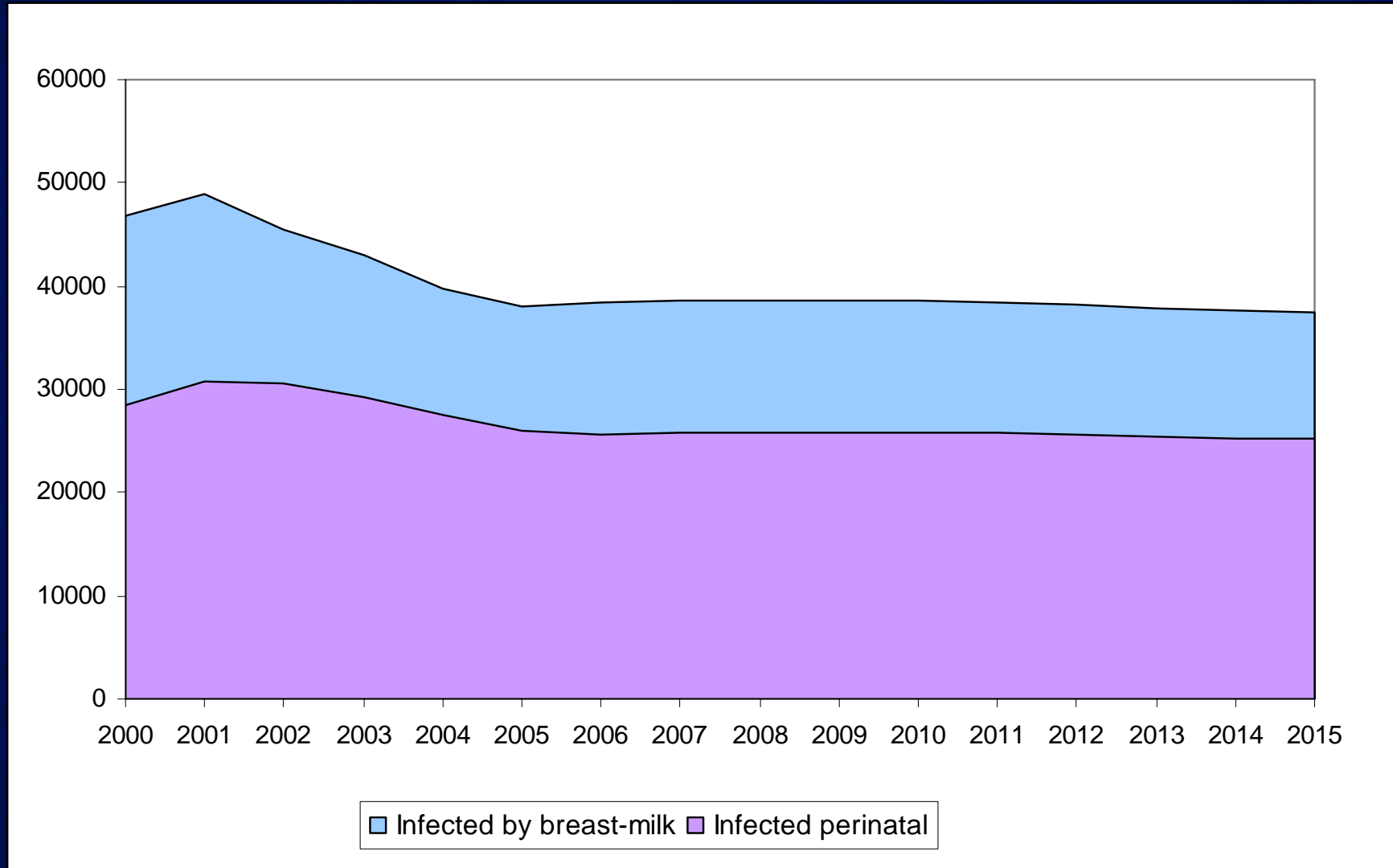
Source: ASSA2003

Projected proportion of all children whose mother has died under age 2, 6, 12 and 18 years



Source: ASSA2003

Projected number of infected babies



Source: ASSA2003

So what can we say?

- HIV is a major cause of the burden of disease in children and can be expected to continue
- Higher than expected child prevalence needs investigation including modes of transmission and the appropriateness of the models
- Data to monitor child mortality must be improved as part of the NSP
 - ◆ Survey data needs to be improved
 - ◆ Vital registration data needs to be improved for children

HMN Domains of Measurement

Determinants of Health

Socio-economic and demographic factors
Environmental and behavioural risk factors

Health System

Inputs	→	Outputs	→	Outcomes
Policy		Information		Coverage
Financing		Service		Utilisation
Human resources		(availability		
Organisation		and quality)		

Health status

Mortality

Morbidity/
Disability

Well-being

Need to strengthen monitoring of the burden of HIV and AIDS on children

- Monitoring PMTPC in facilities
- Sentinel PCR testing of babies
- Facility based mortality audit through PIP and ChIP
- Population based surveys
(programme coverage and mortality)
- Improve registration of deaths

Acknowledgments

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MRC Biostatistics Unit

UCT Center for Actuarial Research

www.mrc.ac.za/bod/bod.htm