Progress Towards the Child Mortality MDG in Urban Sub-Saharan Africa

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Purpose

Examine trends in urban childhood mortality in Sub-Saharan Africa and the linkages to urban growth, access to safe water & vaccination coverage

Outline

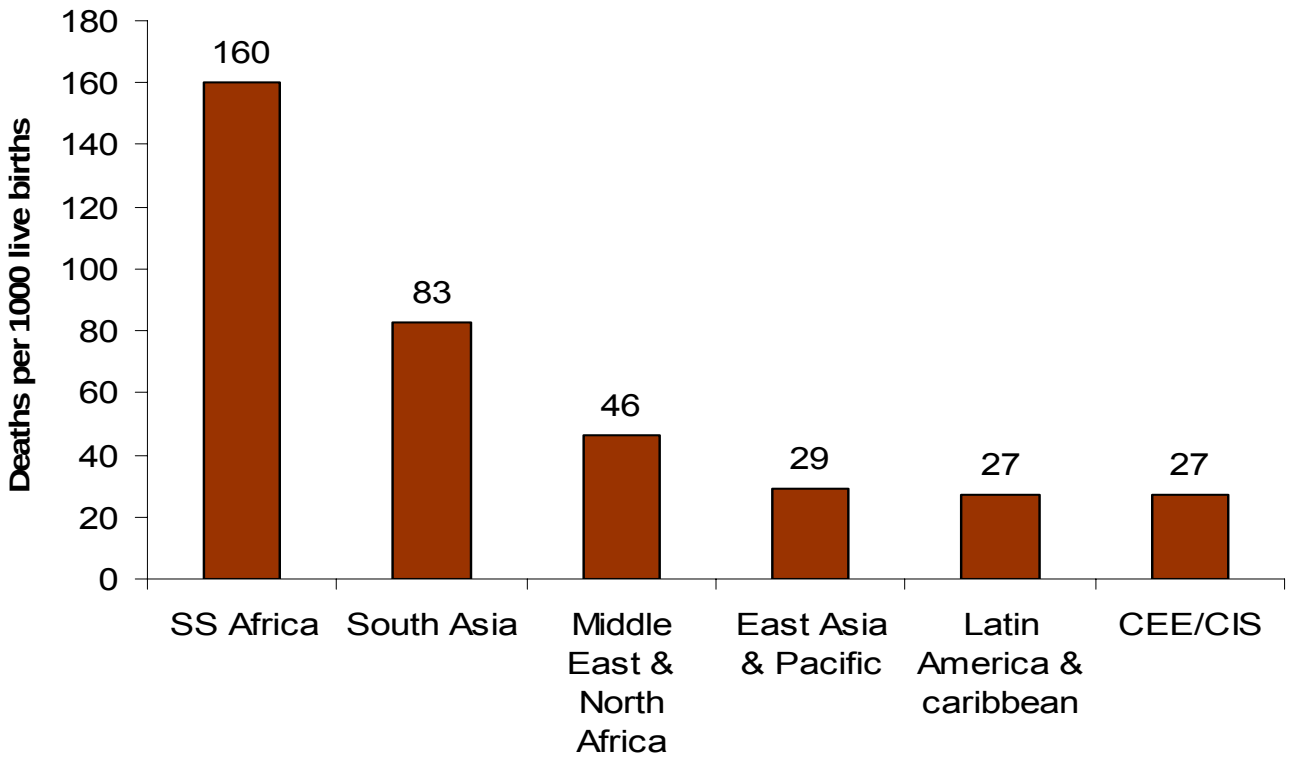
- Child mortality in SSA
- Links between urban growth and child mortality
- Macro-level analyses
- Case study 1: Kenya
- Case Study 2: Zambia
- Conclusions

Child Mortality in Sub-Saharan Africa

- Globally, more than 9.7 million deaths in 2006
  - Nearly 5 million of these from Africa
  - About 3 million in South Asia
  - I.e. 80% of all deaths
- Nearly 6 million of these deaths preventable

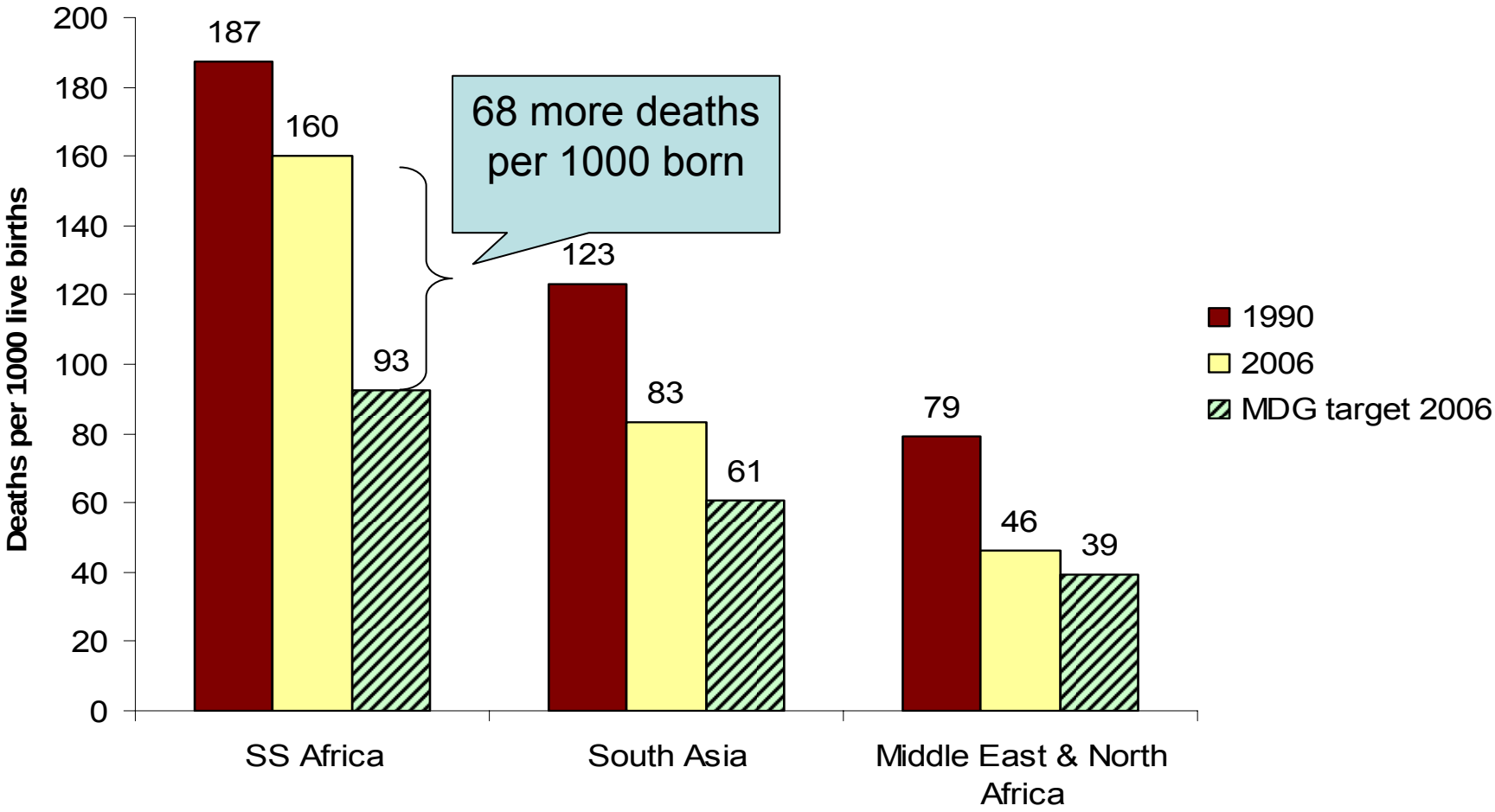
Child Mortality in Developing Countries

Under-five mortality rates in developing regions, 2006



Source of data: UNICEF

Progress Towards MDG 4



Source of data: UNICEF, 2007

Urban Growth and Child Mortality in SS Africa

Urban Growth in SS Africa

- Between 1980s and 2000
  - Urban growth (annual average rate of change) over 4%
  - GDP per capita: -0.8%
  - Food production index per capita: 0.2%
- Fast pace of urbanization in context of poor economic performance

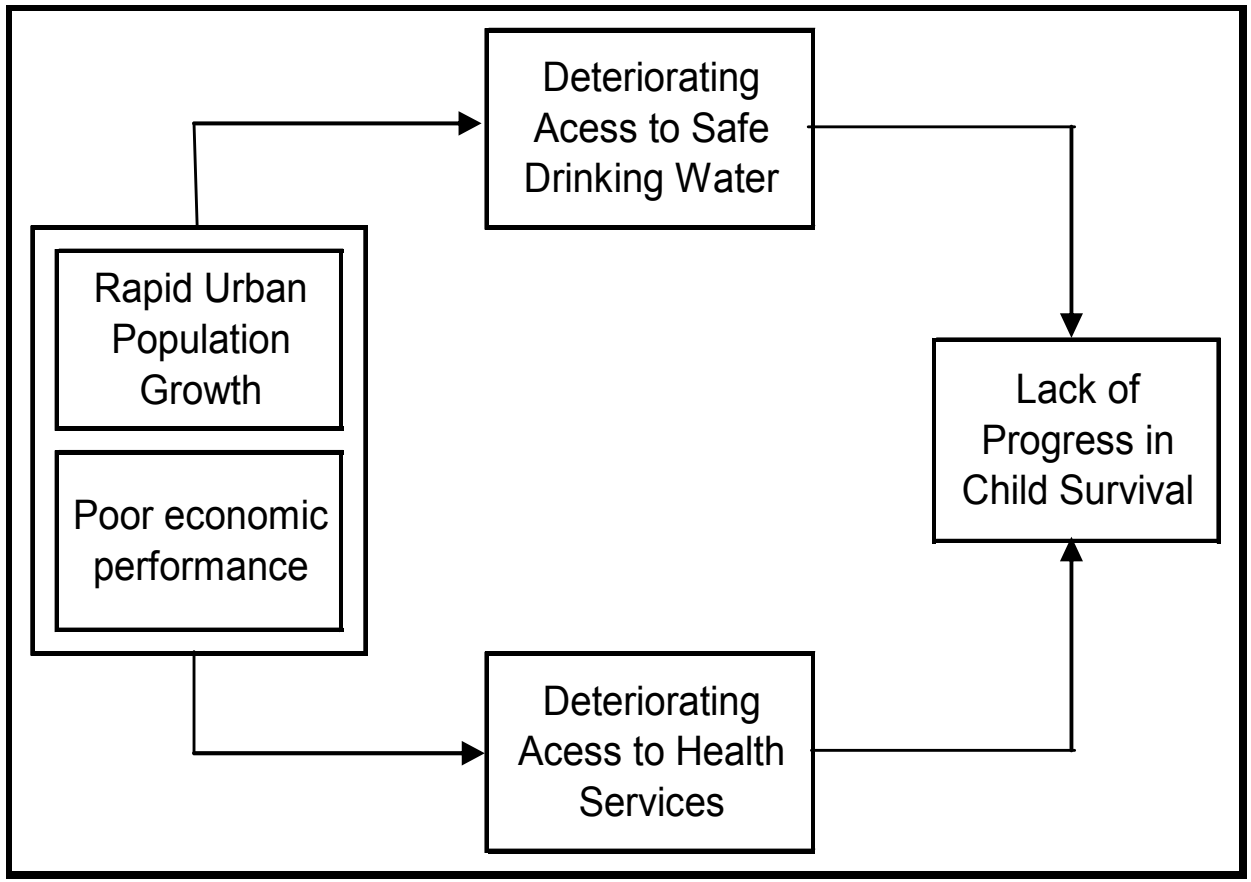
  → growth of informal settlements

  Poor sanitation & poor, but expensive healthcare

Child Health in Urban Areas

- Traditionally ‘urban advantage’ in child health
- Growth of urban poor → diminishing ‘urban advantage’
  - Madise & Diamond (1995)
  - Brockerhoff 1998
  - Gould (1998)
  - Fotso (2007) etc

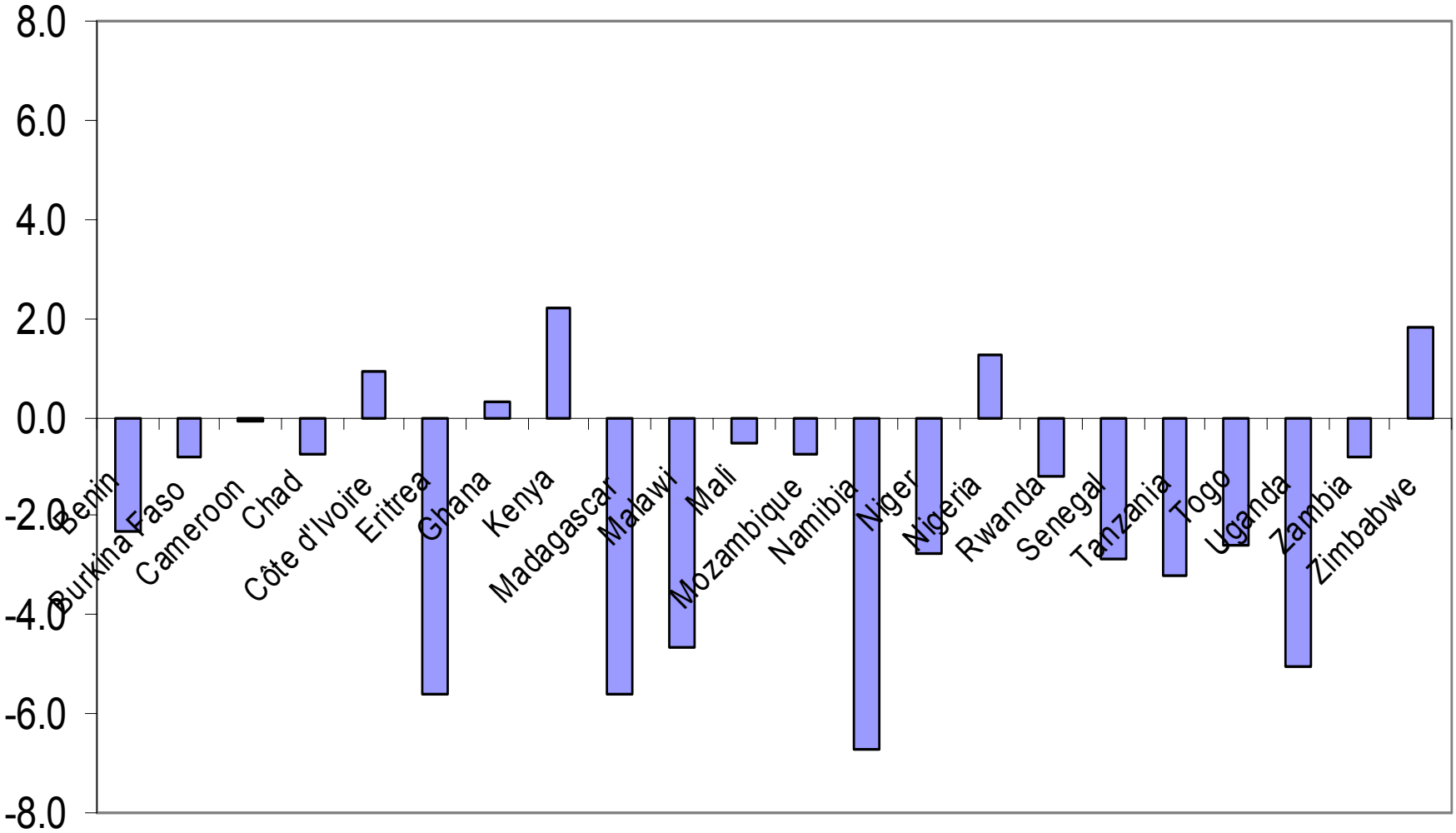
Links between urban growth, access to services and child health



Macro Analyses: Methods

- DHS data from 22 sub-Saharan African countries
  - Surveys between 1990s and 2000s
- Average annual rate of change (AARC)
  - Urban under-five mortality
  - Urban households with access to piped water
  - Children (1-2 years) who are fully immunized
- Average annual urban population growth between 1980-2000 (UN Population Division)

Change in under-five mortality in 22 African countries, 1990s and 2000s



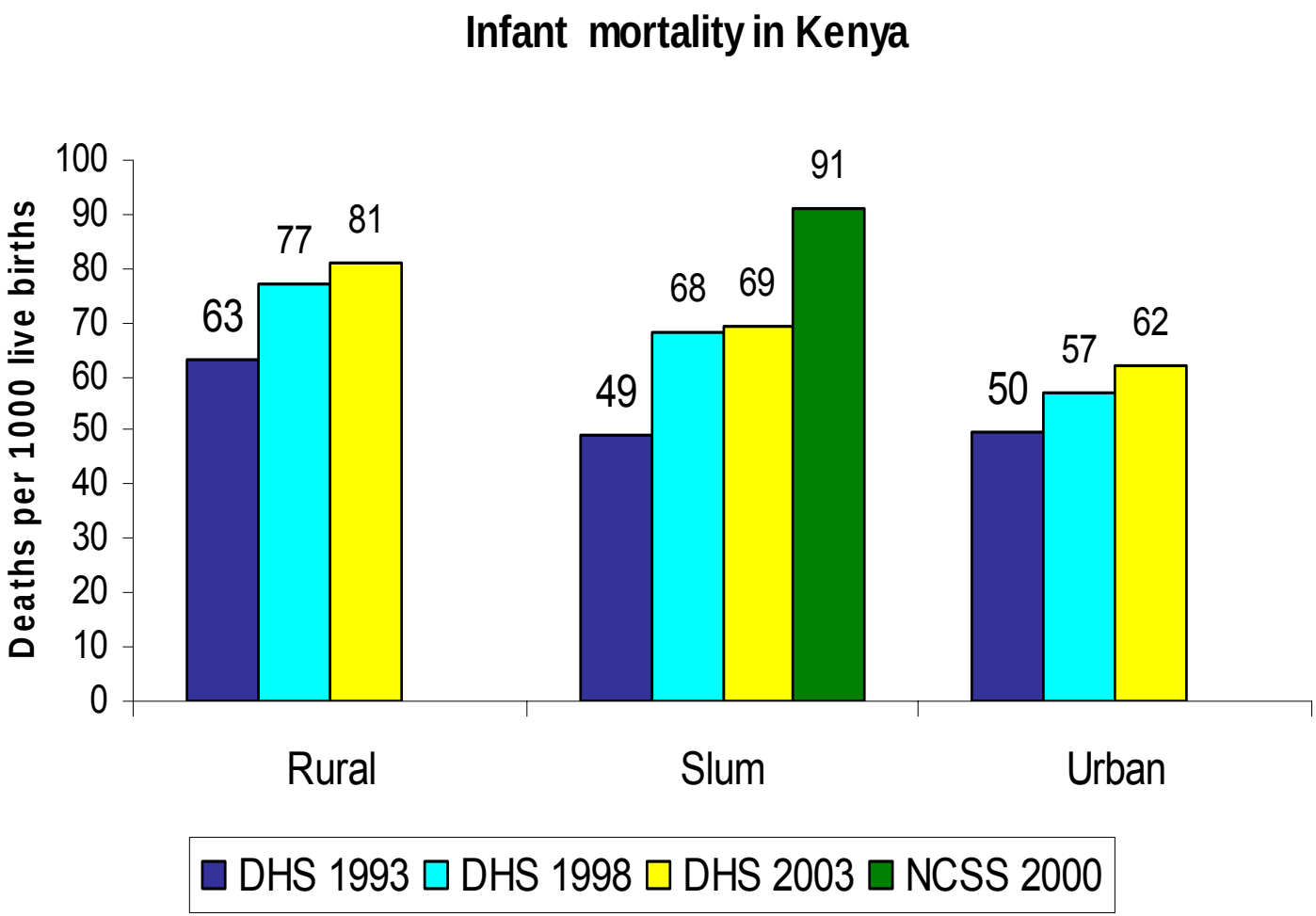
Correlations: Urban Growth and Child Mortality

	Δ Urban growth	Δ Access to piped water	Δ Immunization
Δ Under-five mortality	R=0.41 Weak + *(p < 0.1)*	R=-0.45 Weak – *(p< 0.1)*	R=-0.73 Strong - *(p<0.01)*
Δ Urban population growth		R=-0.42 Weak - *(p<0.1)*	R=-0.57 Strong - *(p<0.01)*

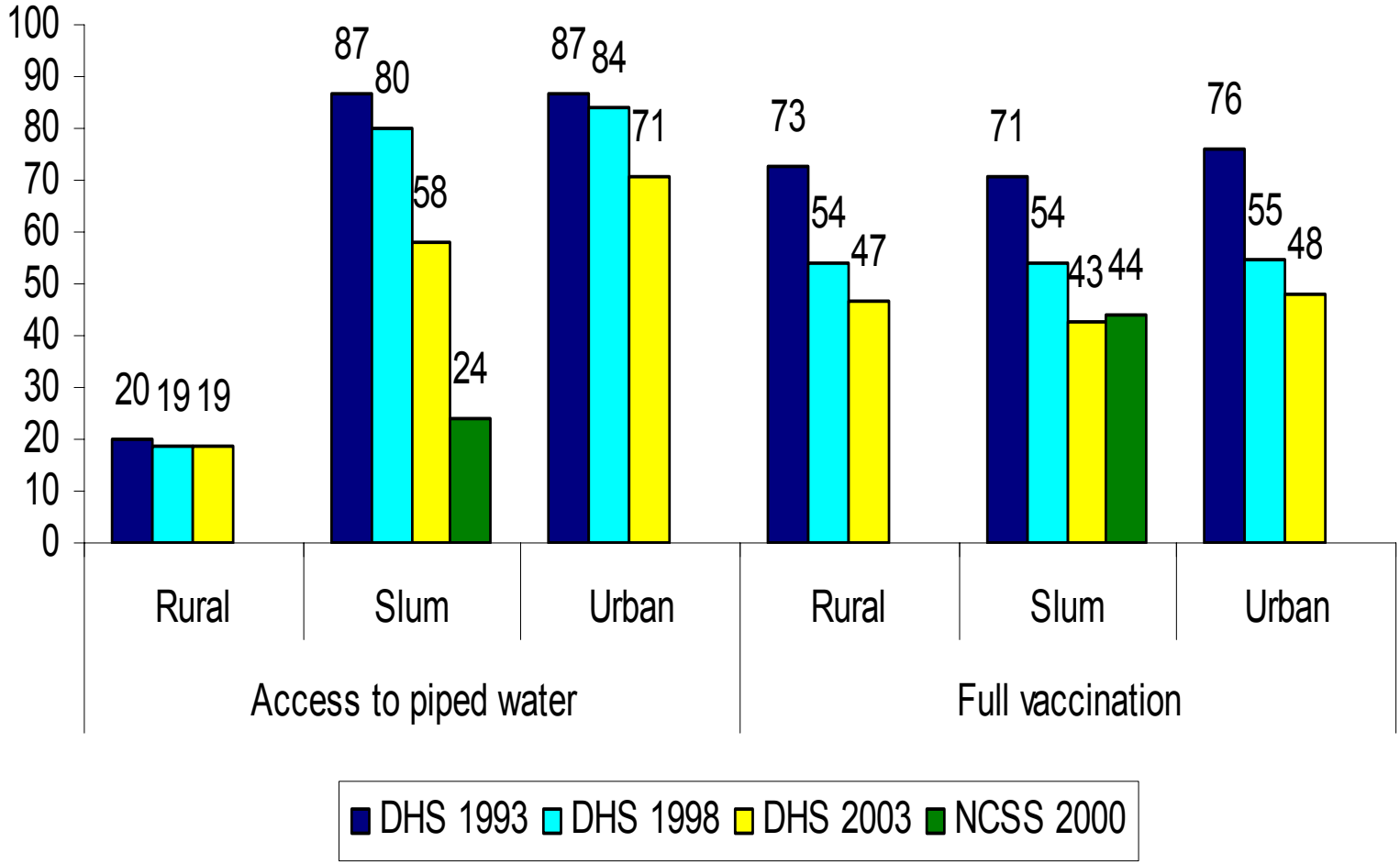
Case Study 1: Kenya

- Cross-sectional survey in Nairobi slums in 2000
- 4,564 households interviewed
- DHS-type questions, birth histories from women aged 15-49 years etc
- Comparable to 1998 and 2003 Kenya DHS
- Slum definition ‘no own flush toilet’

Infant Mortality in Kenya, 1993-2003



Deterioration of Sanitation and Health: Kenya,1990s-2000s

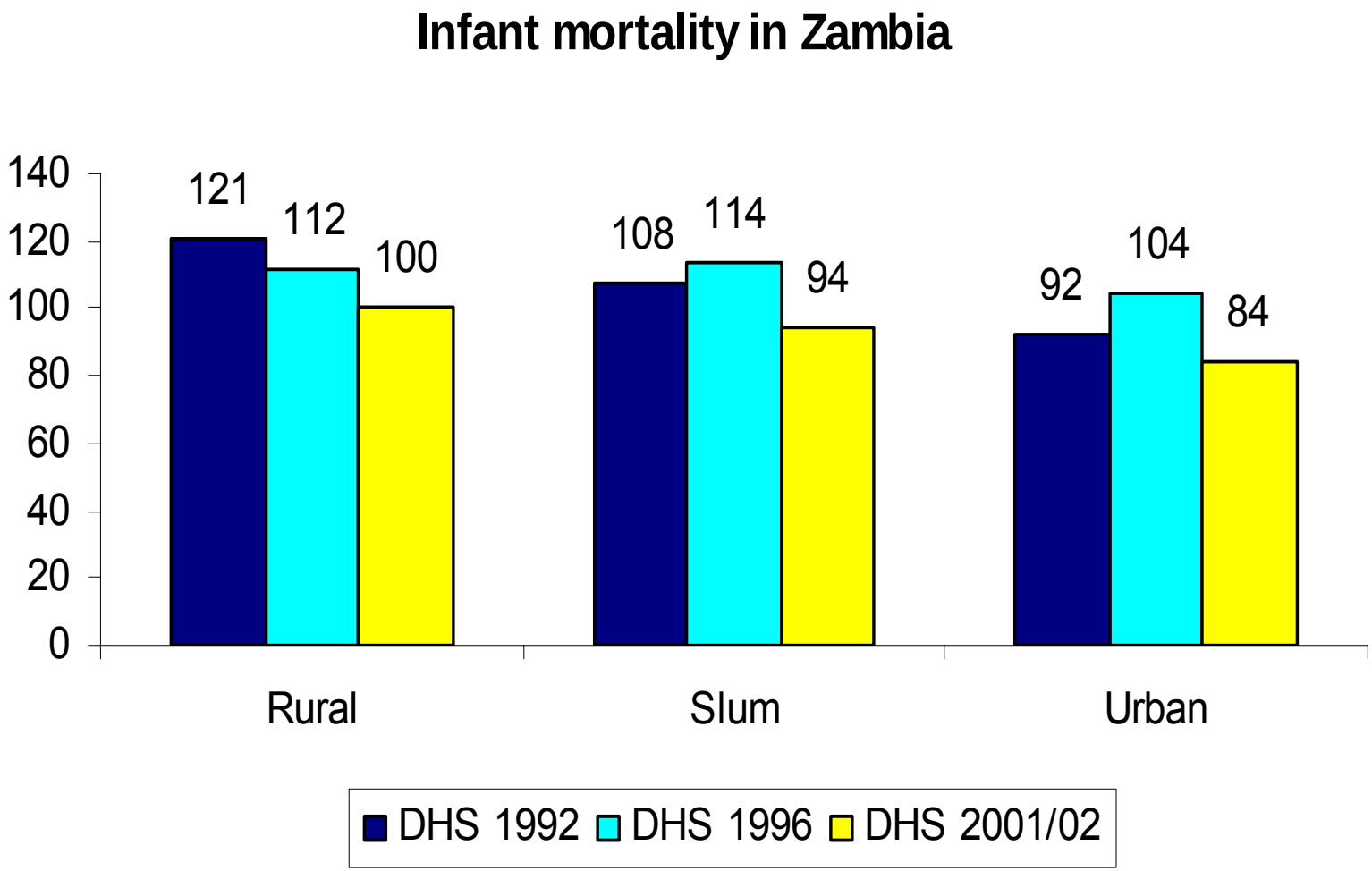


Case Study 2: Zambia

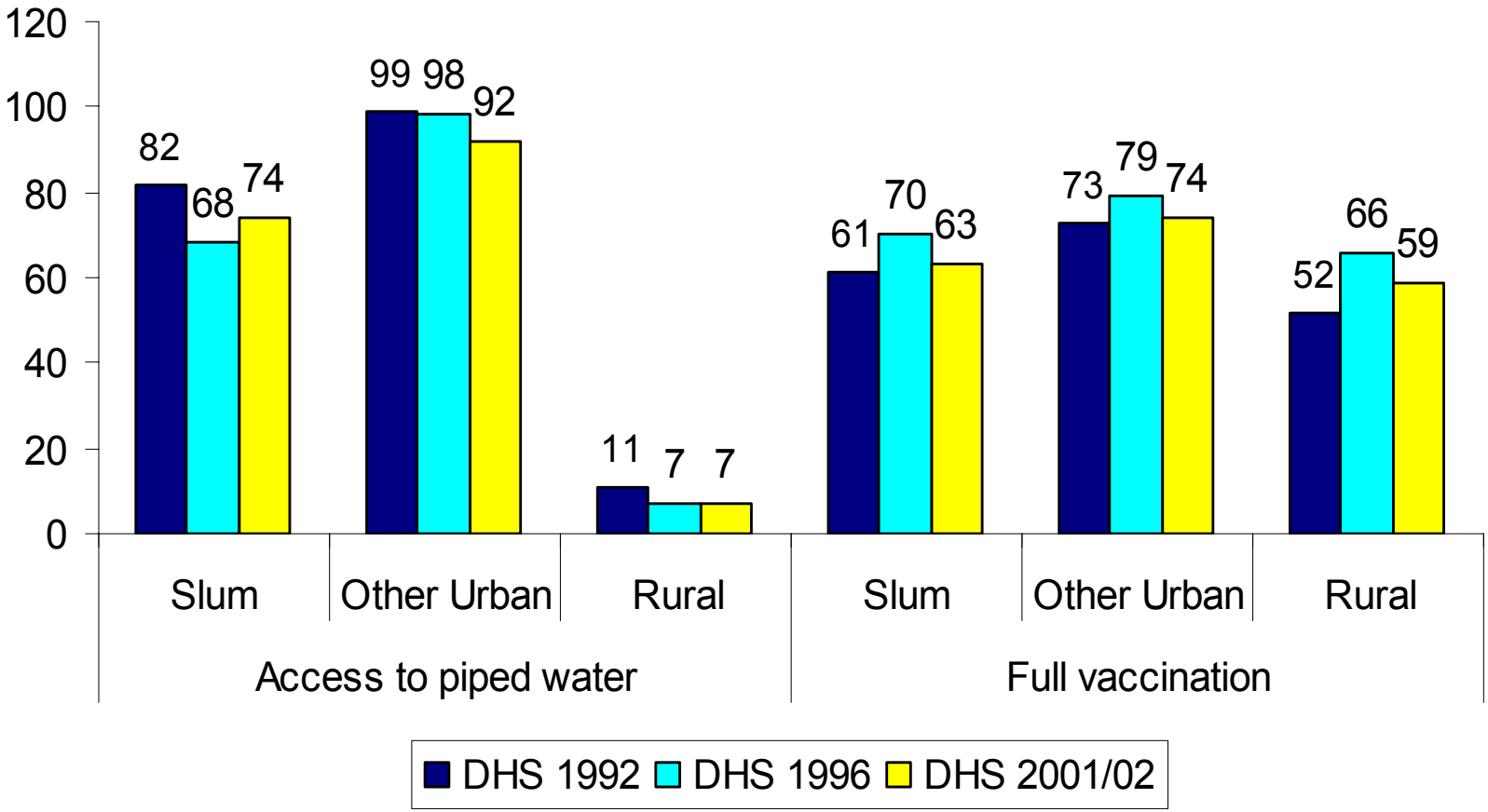
- Analysis of DHS 1992 & 1996 to examine trends in child mortality

  (Madise et al. 2003)
- Interaction of urban/rural residence and socio-economic status
  - Rural mortality higher than urban BUT
  - Urban poorest had highest mortality risks

Deteriorating child health in urban areas of Zambia,1990s



Access to water and vaccination in Zambia, 1992-2002



Limitations

- Problems of identifying slums in DHS samples
- Small urban samples → smaller samples of slum vs non-slum
  - Larger samples needed to look at intra-urban differentials
- Omission of outlying observations in macro analyses

Conclusion

- Growing poverty in urban areas
- Narrowing gap between urban and rural health outcomes
- Evidence of worsening child health outcomes in urban areas relative to rural
- Poor access to safe water, poor healthcare → poor child health outcome
- Inertia in tackling urban planning hurting most vulnerable

Thank You