

Methodological challenges: evaluation of HIV impact

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Framework for impact evaluation..

- Net change with our without intervention
 - HIV epidemic without a human response?
- Basic outcomes
 - HIV incidence/ prevalence
 - HIV deaths
- Impact of prevention and treatment responses
- “Best method” ... Population level impact
- Long-term process ... maybe not?

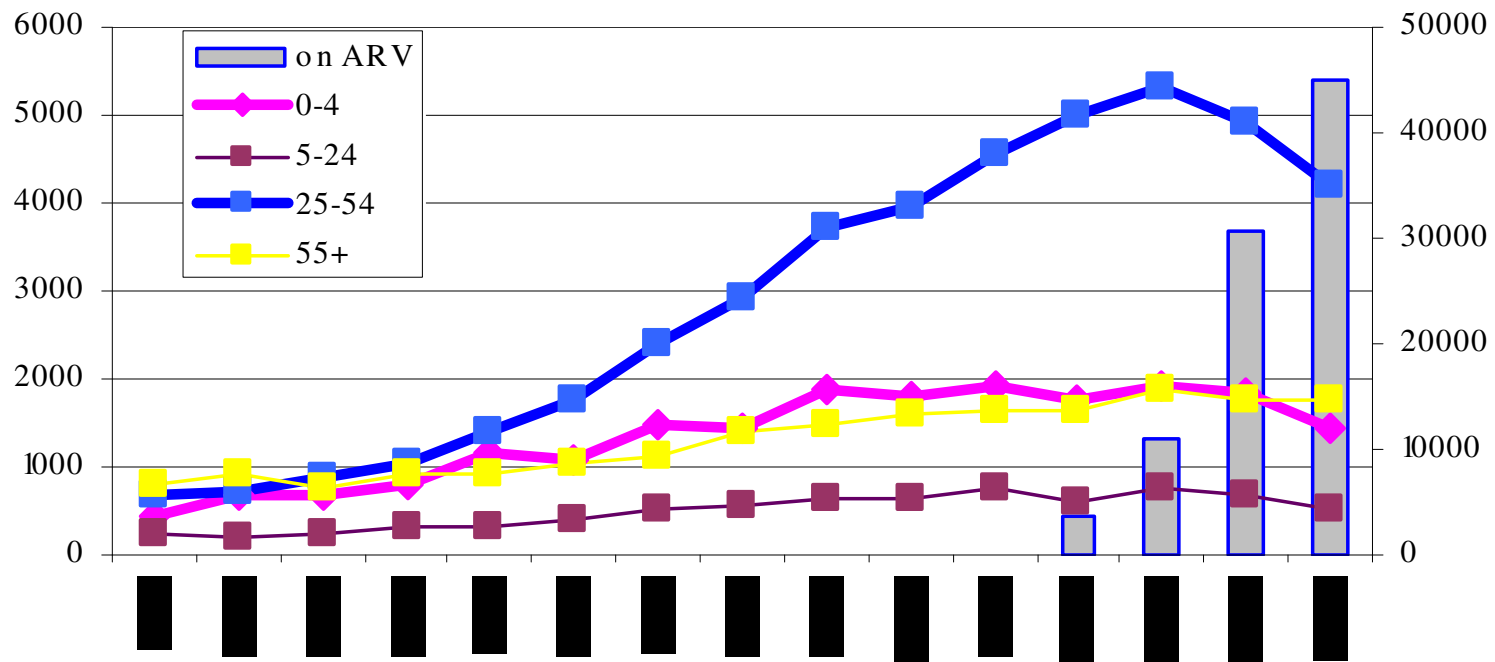
Examples

1. ARV/PMTCT impact: mortality impacts
Botswana and Malawi
2. Behavioral impact:
 - HIV dynamics and behavior change
Uganda, Botswana,
 - Malawi?
3. Measure of infections averted:
 - serial population surveys
 - modeling approach: Botswana vs empirical

ART impact on adult mortality

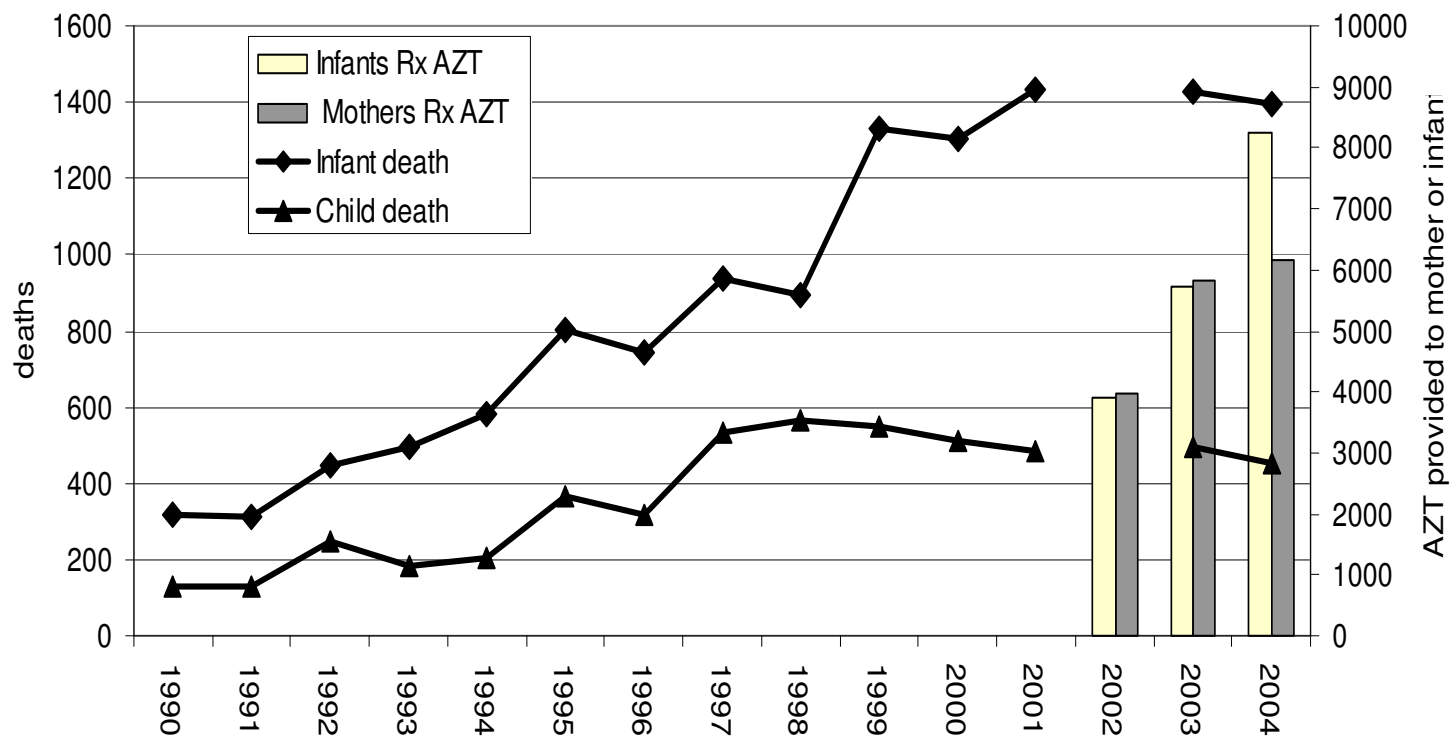
Botswana

Trends in institutional deaths¹ and persons on ARV,
Botswana 1991-2005*



PMTCT impact on infant mortality

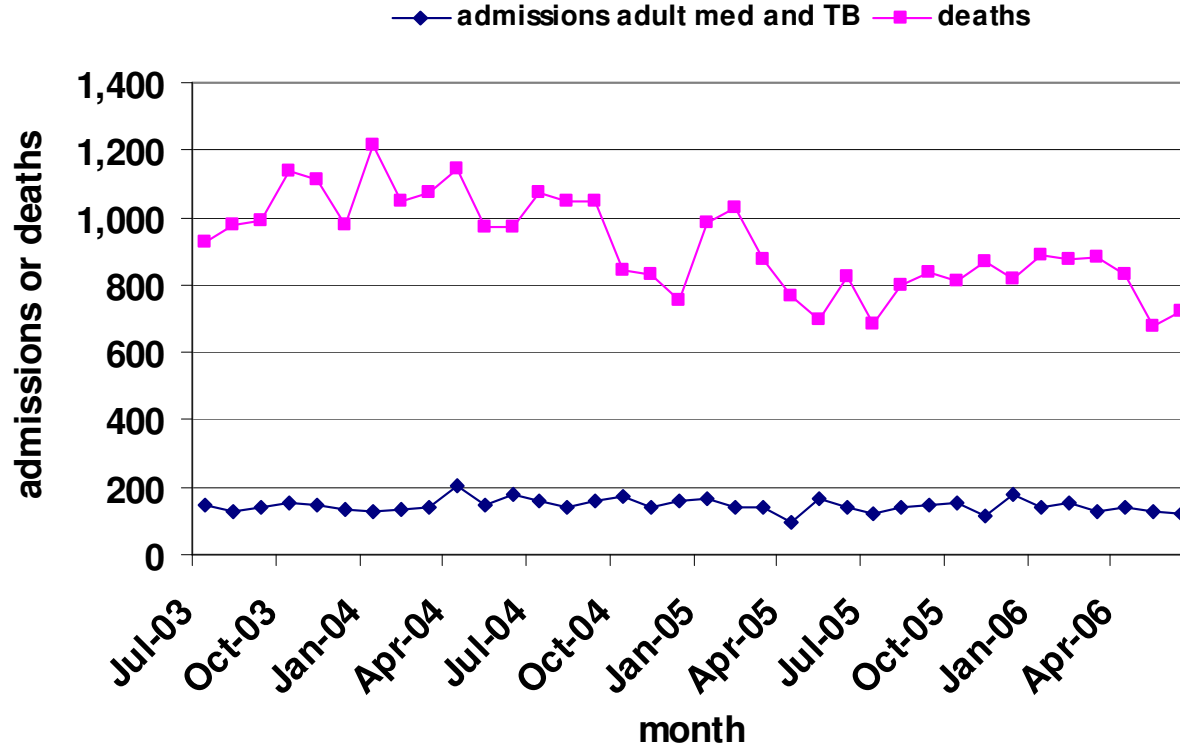
Institutional infant and child mortality compared to PMTCT indicators for AZT use in mother and infants, 1990-2004*



* 2002 mortality data is incomplete and not displayed

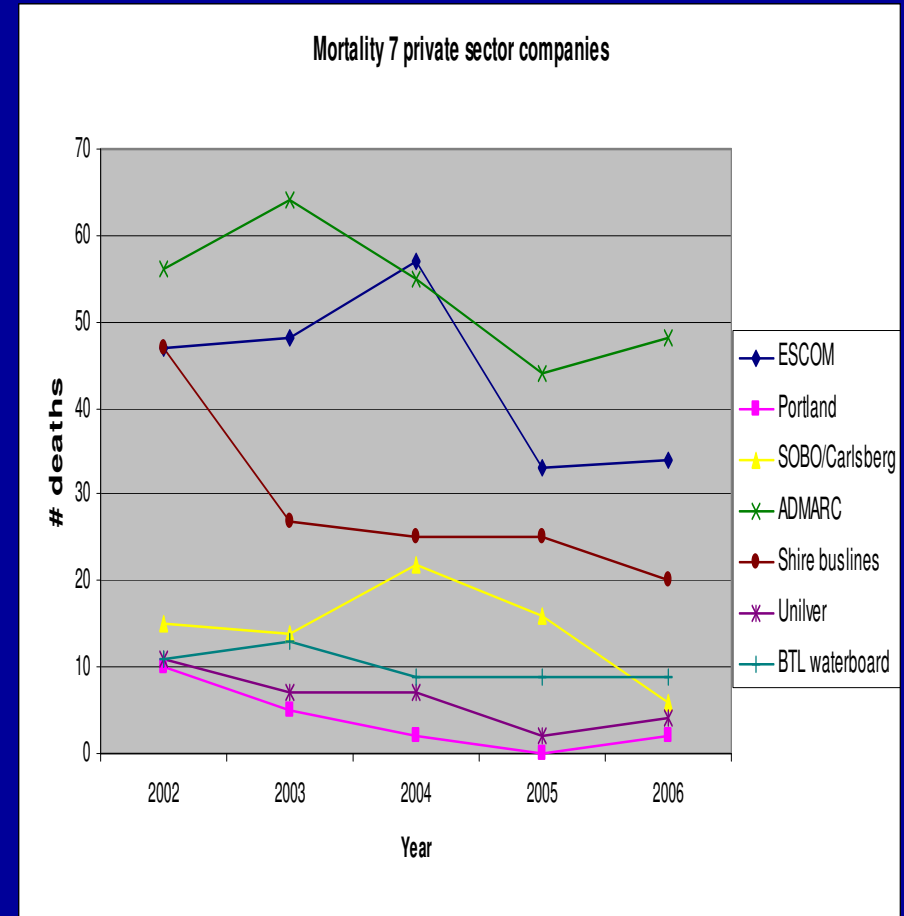
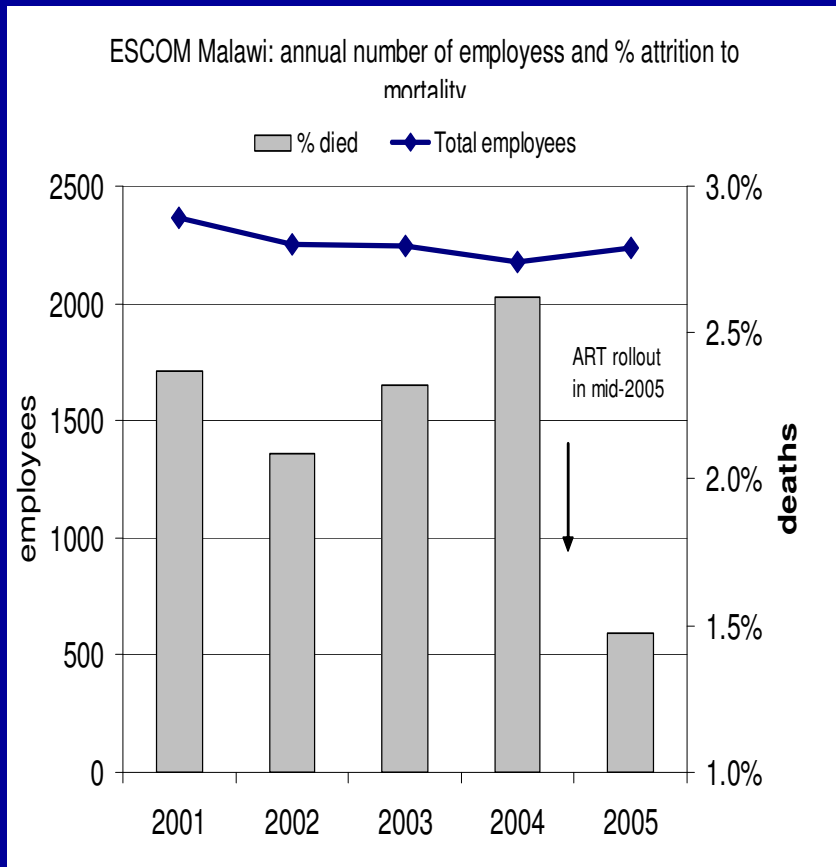
Malawi HMIS hospital mortality: Queens Central Hospital, Blantyre

QECH admissions and deaths adult Med and TB wards June 2003-July
2006



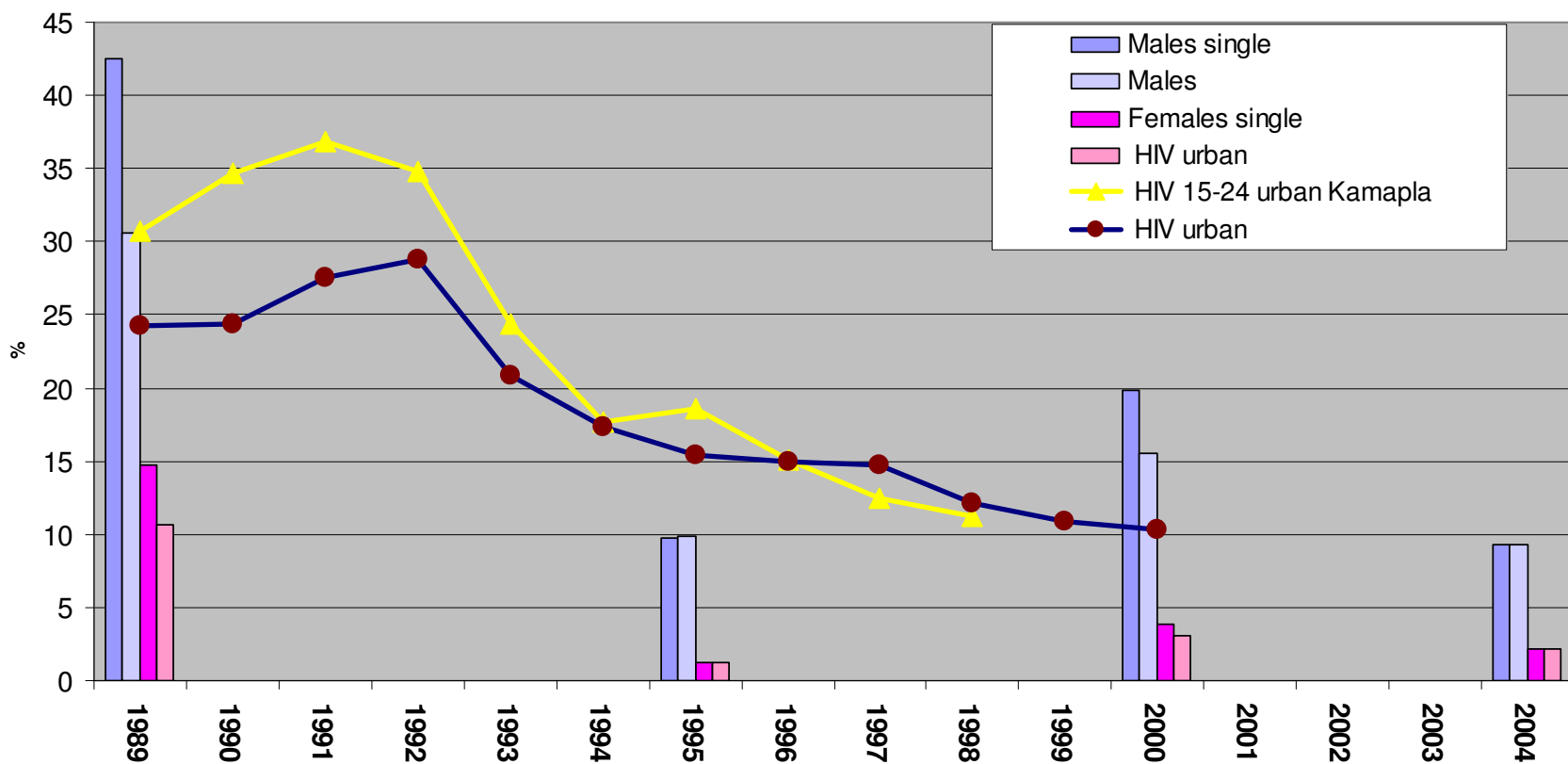
Caution!

Private sector attrition data: evidence of early ART impact



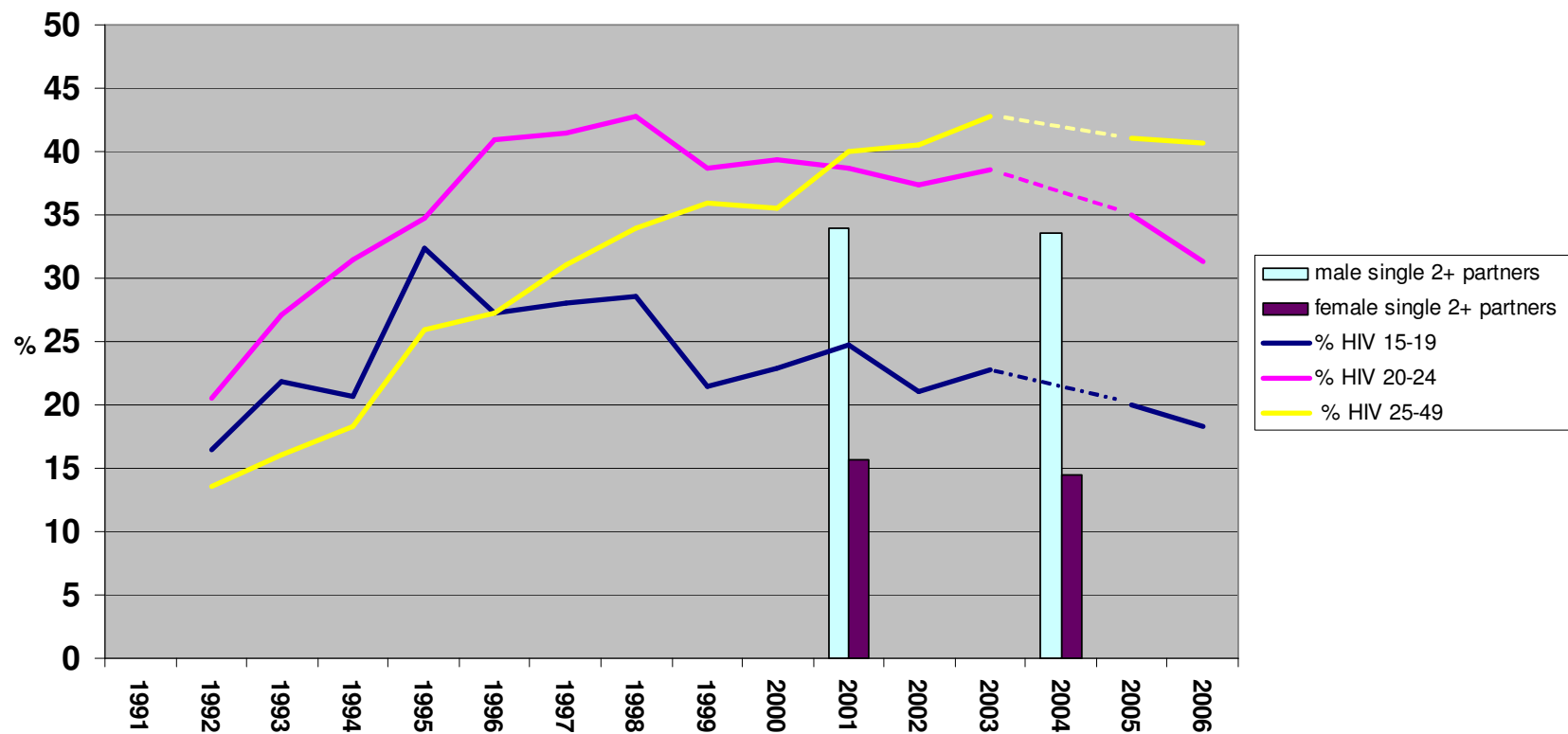
Uganda: declines in HIV and multiple sexual partners

HIV prevalence in urban ANC and 2+ partners in past year from population surveys

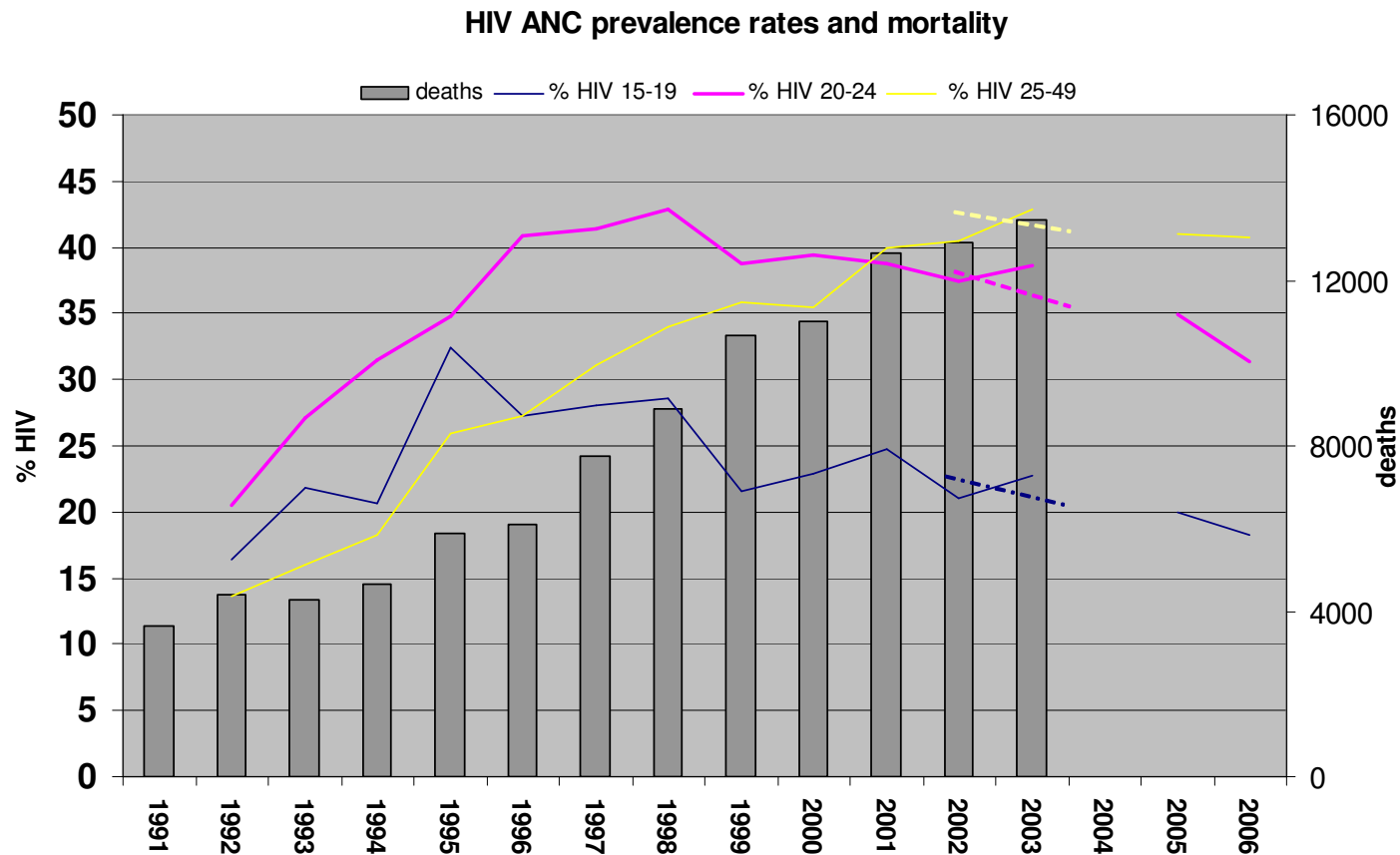


Botswana: declines in HIV and no change in multiple partners

Trends in ANC HIV prevalence and multiple partners from population based behavioral surveys

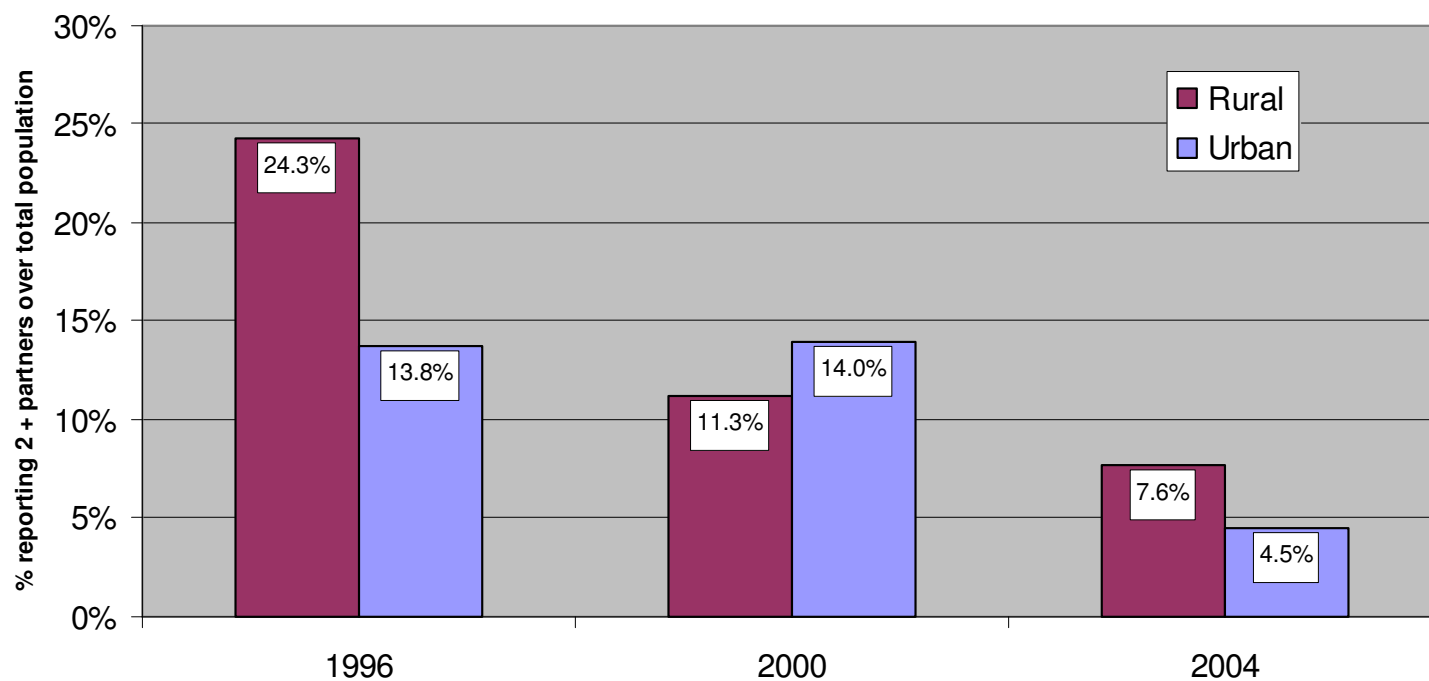


Botswana declines in HIV and mortality



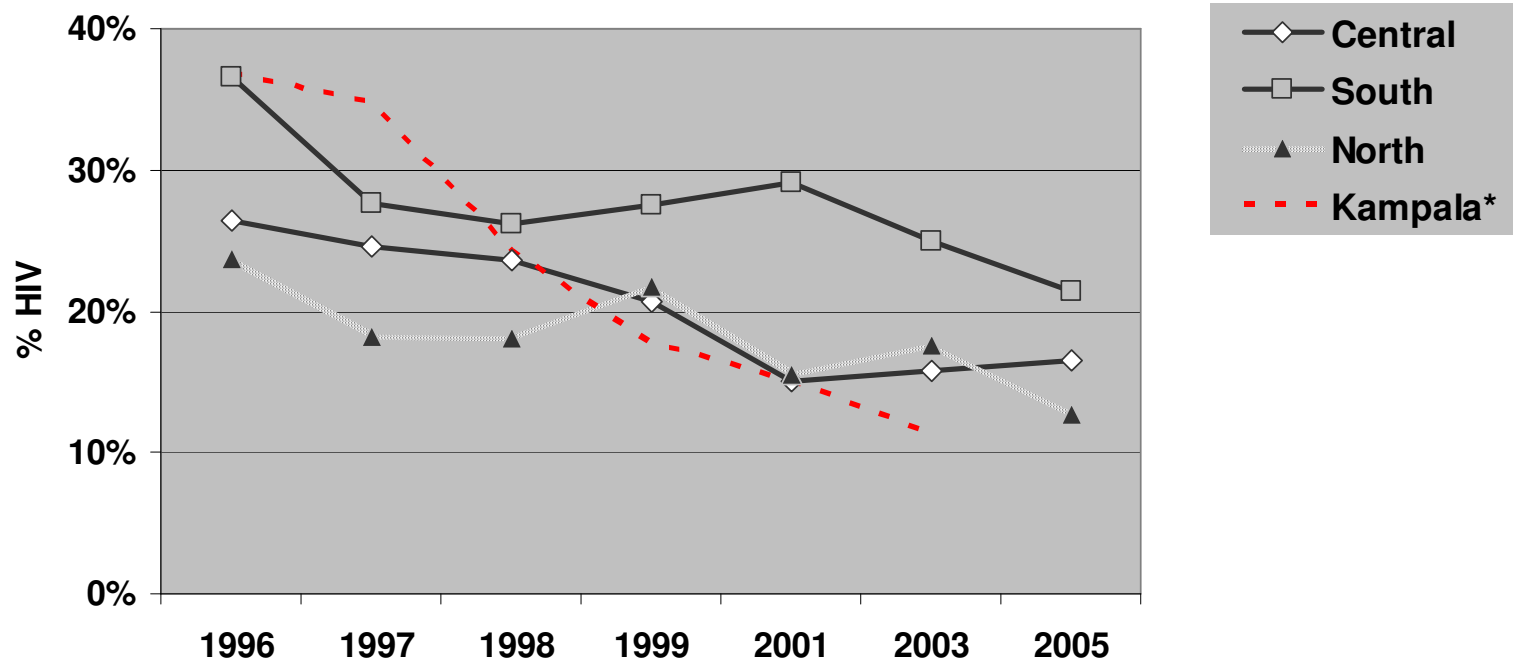
Behavior change among males in Malawi, 1996-2004

Hi risk sex (2+ partners in past 12 mo) reported among males ages 15-24, 1996,2000,2004



HIV prevalence trends females 1995-2005

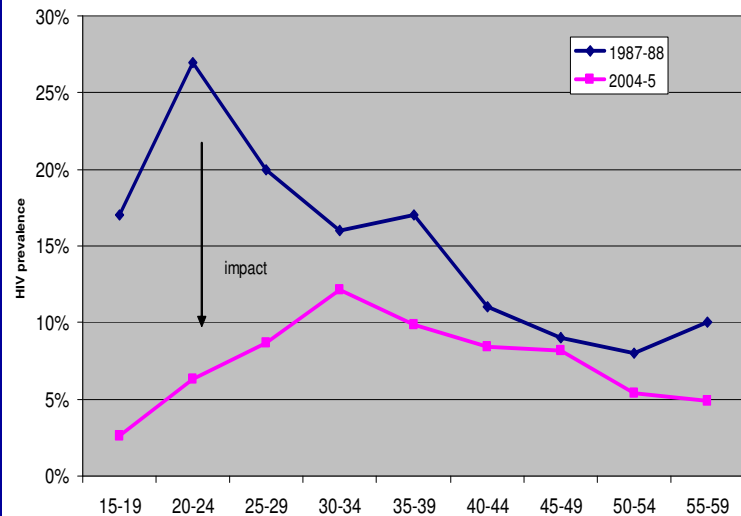
Malawi Urban ANC HIV trends, ages 15-24, compared to trend in Kampala
Uganda*, 1995-2005



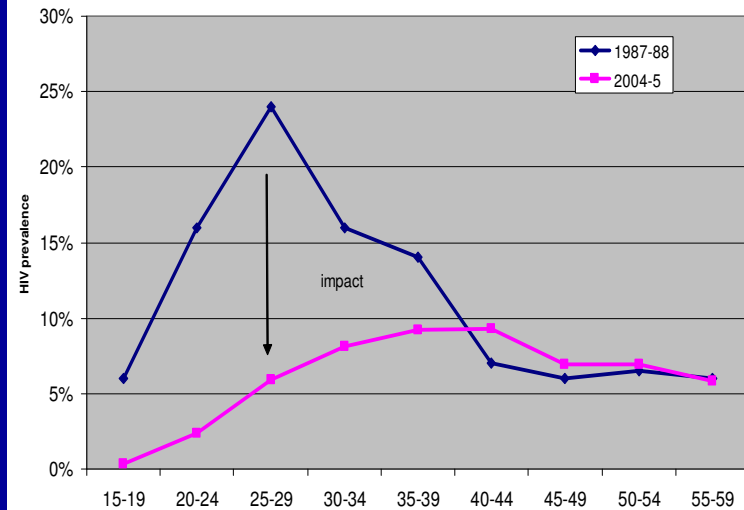
* 1993-98

Infections averted: Uganda population sero-survey 1987-8 vs 2004

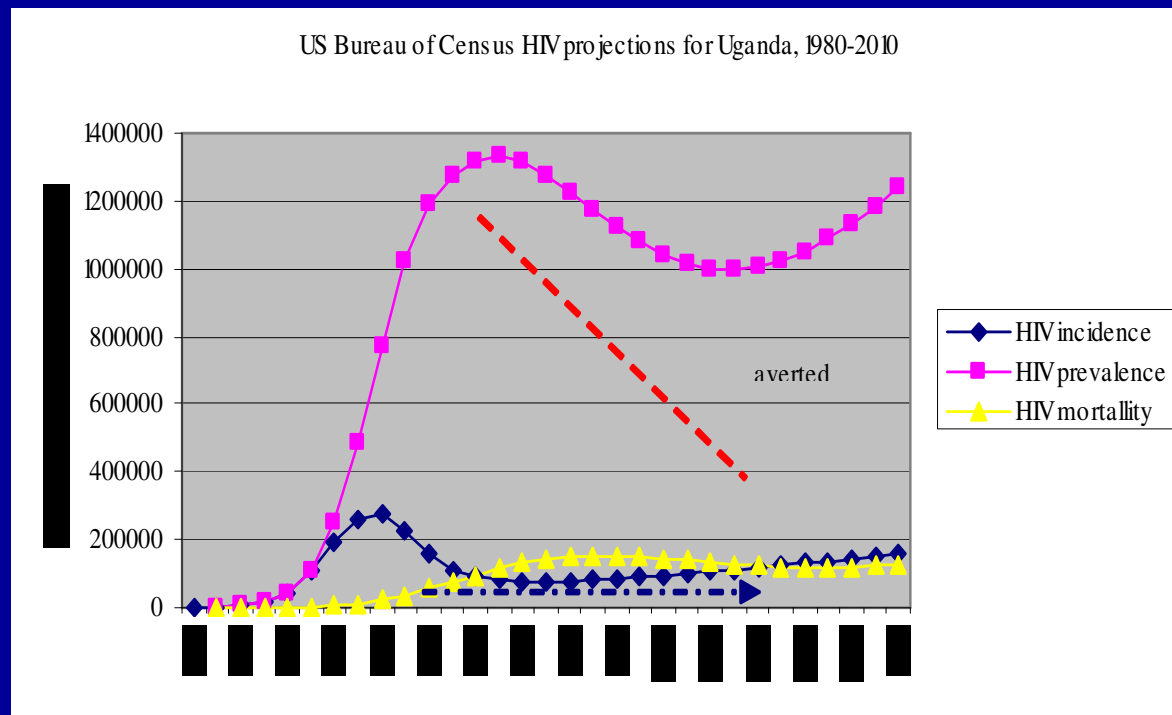
HIV prevalence (%) among females 1988 vs 2005



HIV prevalence (%) among males 1988 vs 2005

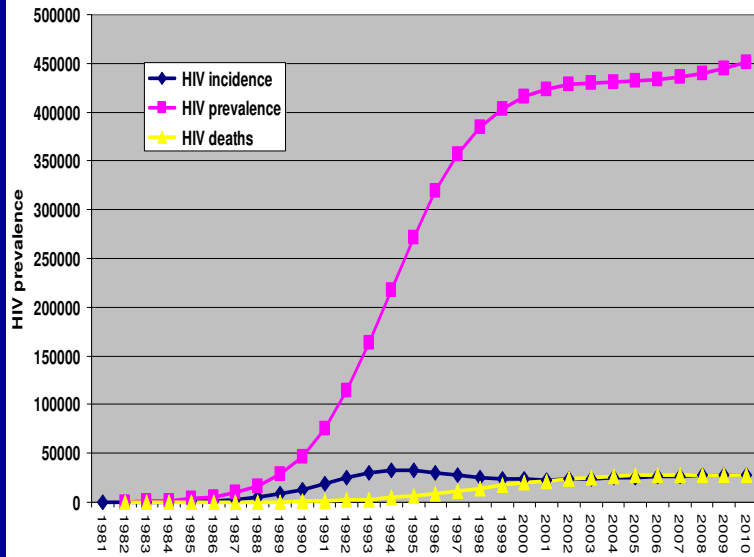


Modeling infections averted: Baseline modelling scenario for Uganda

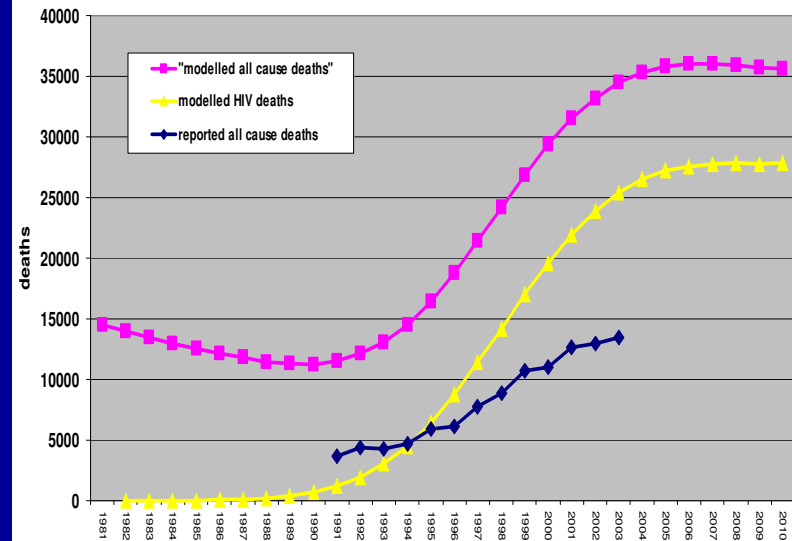


Counting infections averted: model simulation vs Botswana mortality

US Bureau of Census HIV projections for Botswana, 1981-2010



US Bureau of Census HIV projections for Botswana, 1981-2010 compared to reported all cause deaths from vital registration



Comments

- Impacts are there: even early...hunt
- ART/PMTCT impact evaluation:
 - Botswana adult impact--- infant and child?
 - Malawi' early but not yet at population level
- Modeling infections averted
 - Models need tweaking
 - Empirical evidence is best
- Behavioral impact:
 - Epidemiological blind spot?

VISUAL ACUTIY TEST ADAPTED TO DC
POLITICAL ENVIRONMENT

EVIDENCE

FOR IMPACT

BEHAVIOR

CHANGE

NOT FOR SUB-SARAN AFRICA