

“The Causes and Consequences of HIV/AIDS in Africa”

Professor Alan Whiteside

Director

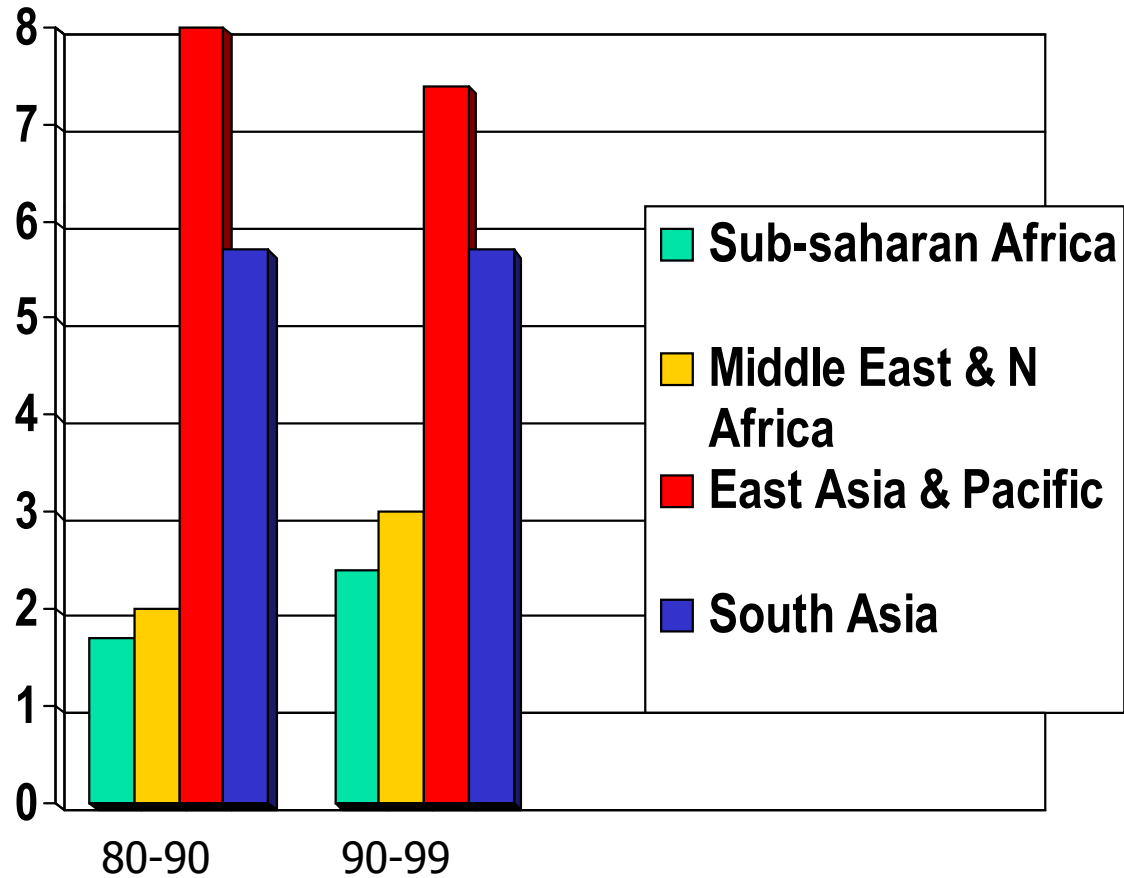
**Health Economics and HIV/AIDS Research
Division**

University of Natal, Durban

Outline of the presentation

1. Introduce HIV/AIDS with Sth'n African data
2. Two Epidemic Curves
3. Talk about what causes HIV spread
4. Discuss the consequences of AIDS
 - Demographic
 - Development and
 - Economic consequences
5. Propose an agenda for action

Growth in Gross Domestic product (%)

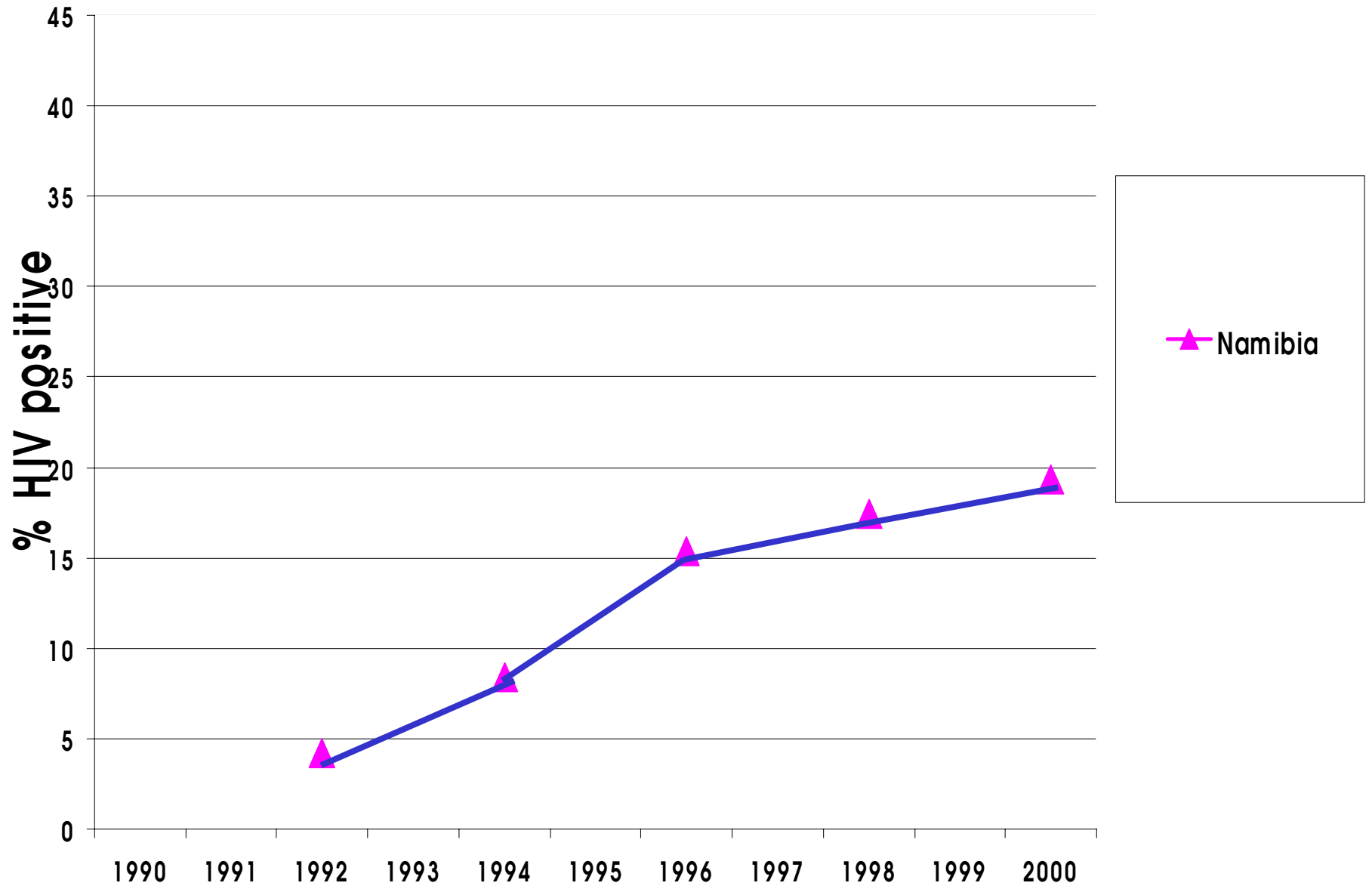


World Bank, World Development Report, 2000/01

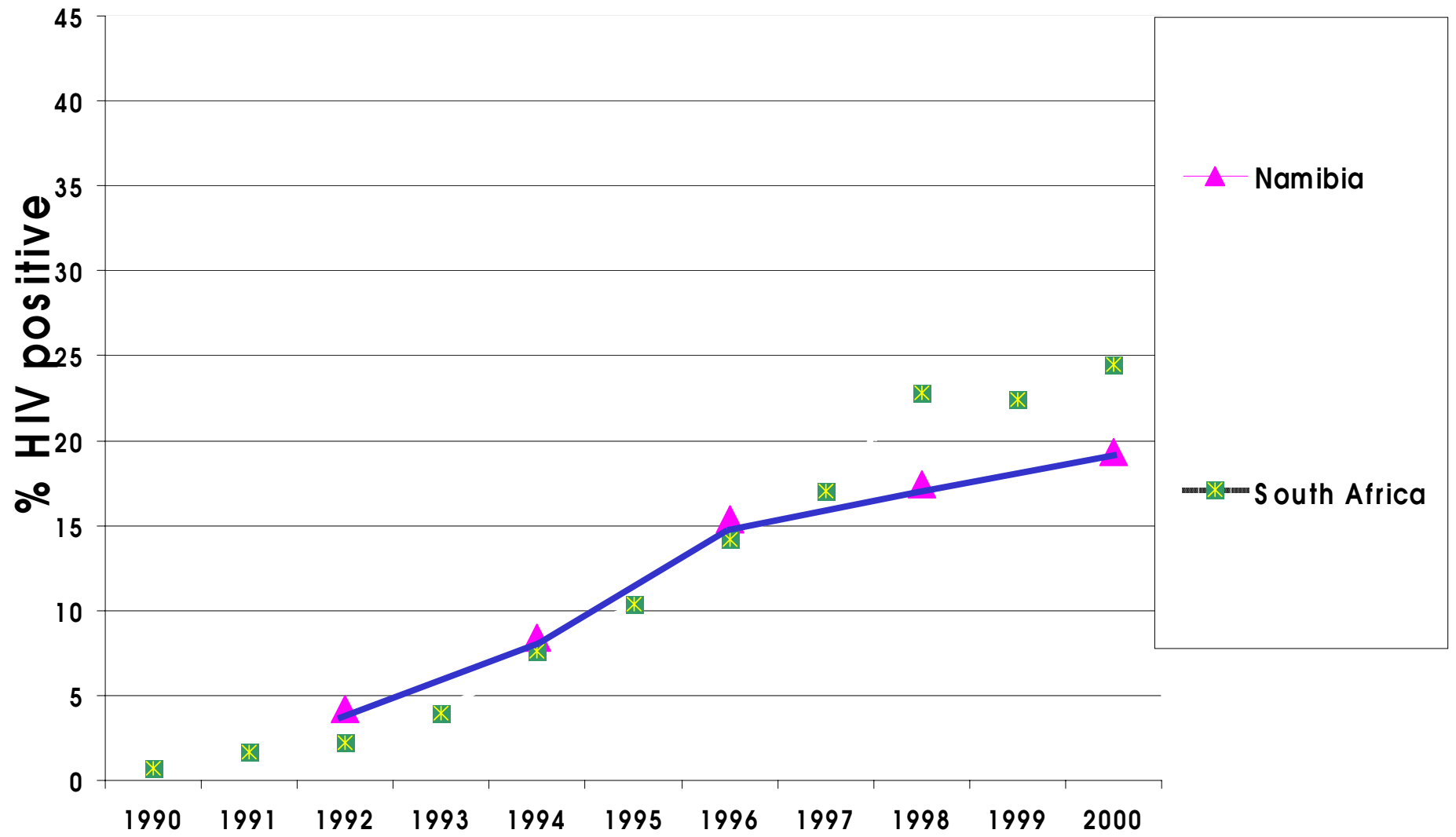
Africa



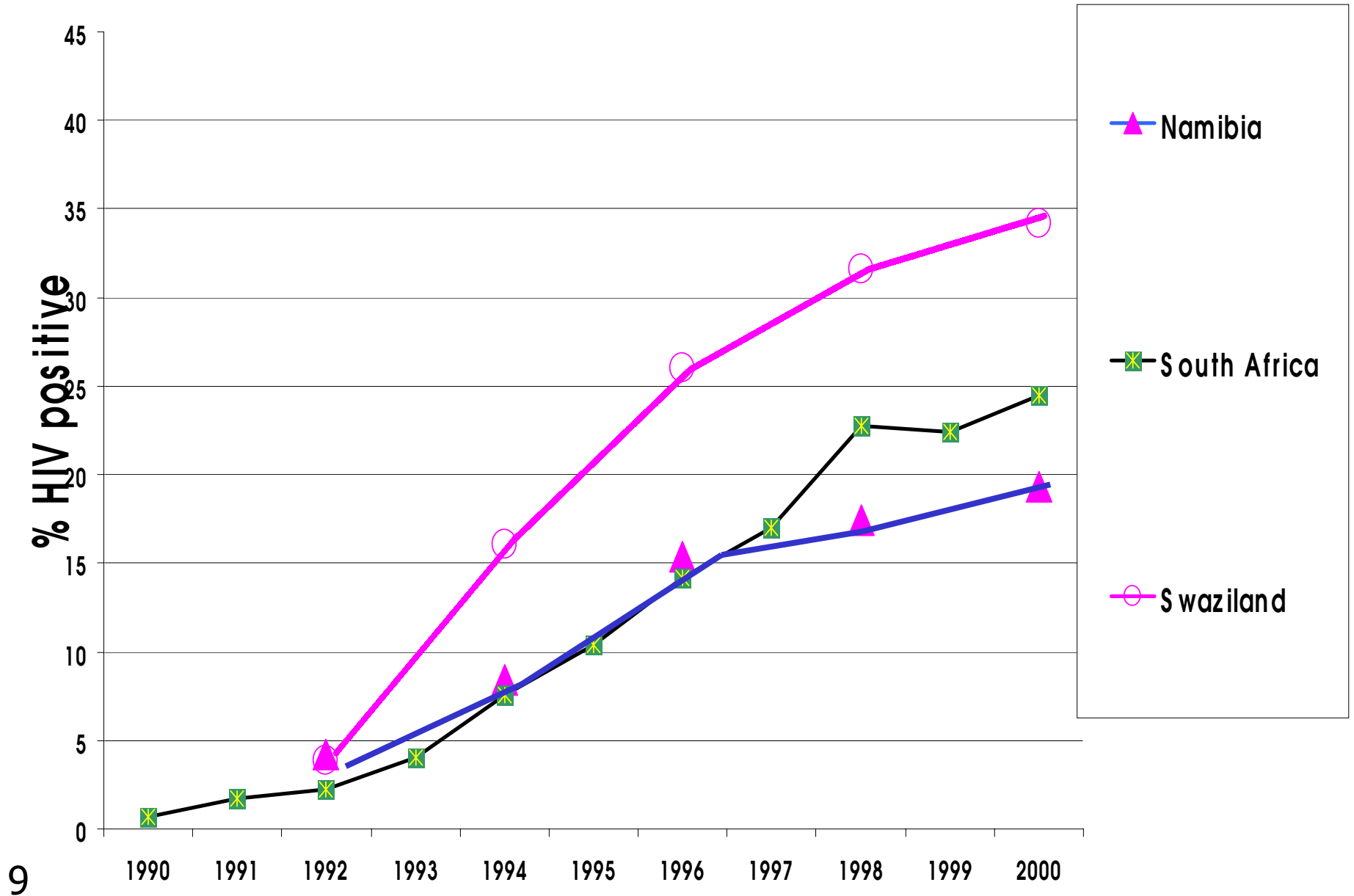
National trends in HIV prevalence



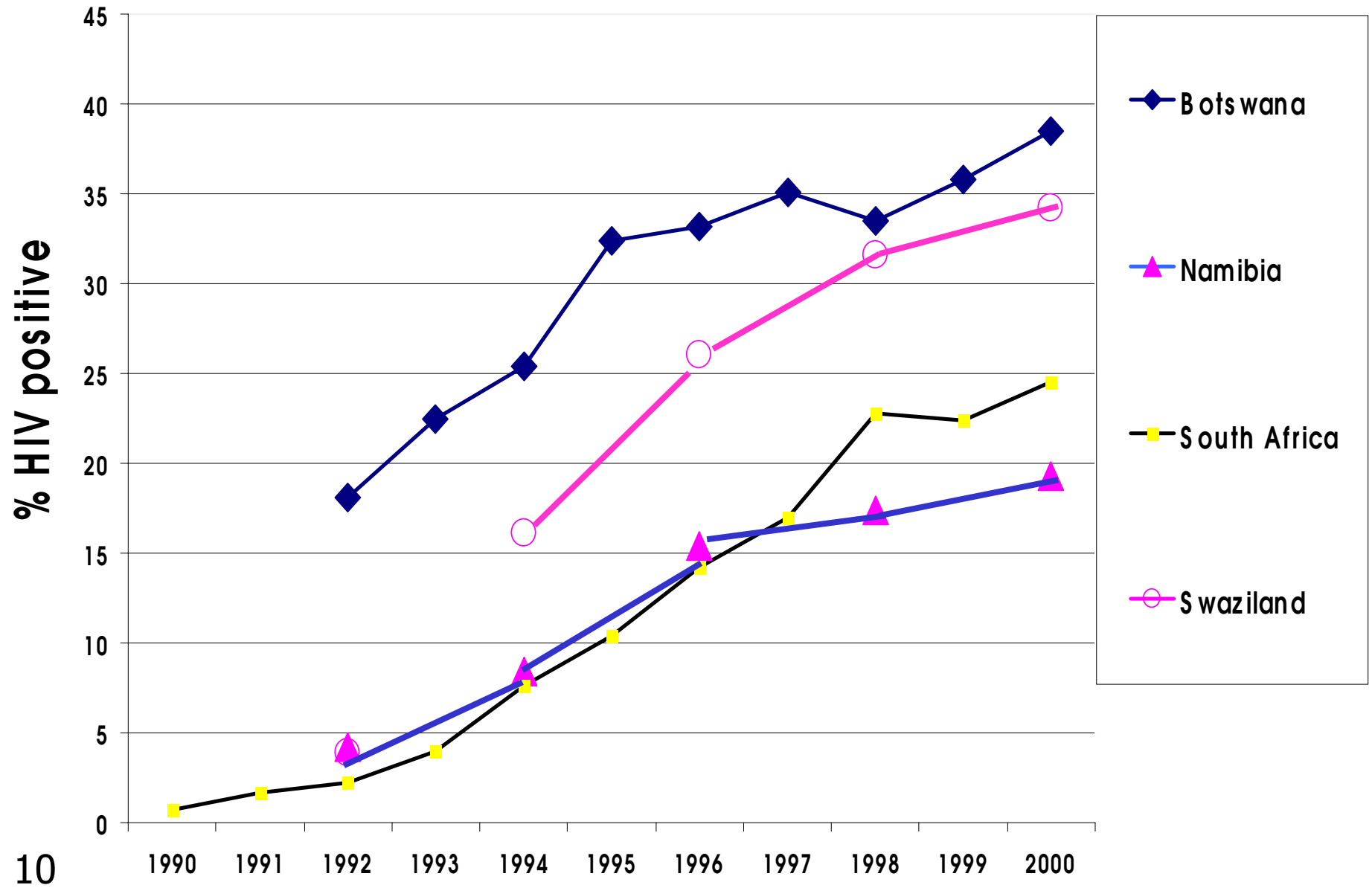
National trends in HIV prevalence



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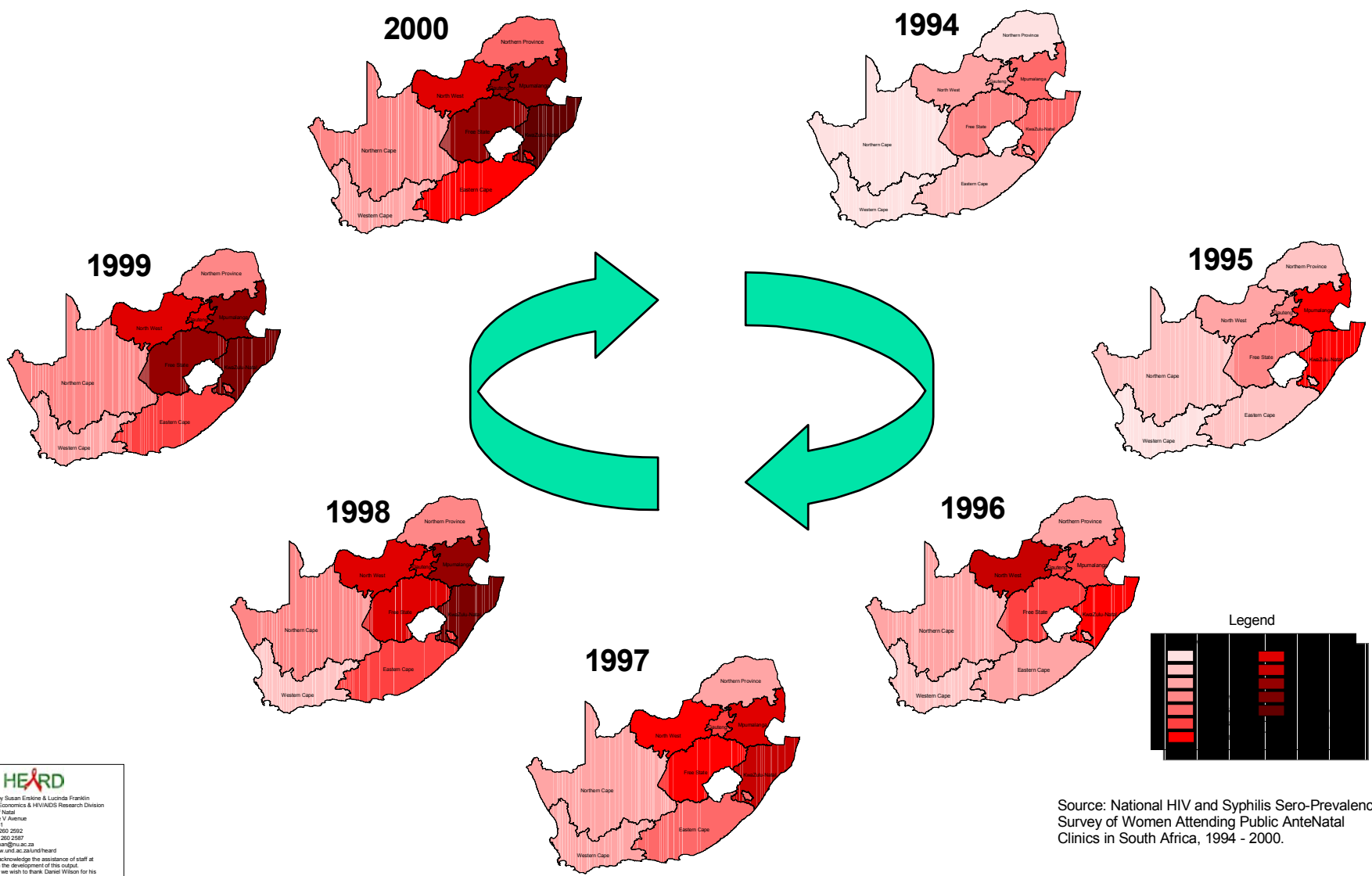
National trends in HIV prevalence



Intro.

Progression of HIV Prevalence in South Africa

Trends Amongst Provincial AnteNatal Clinic Attendees, 1994-2000



Source: National HIV and Syphilis Sero-Prevalence Survey of Women Attending Public AnteNatal Clinics in South Africa, 1994 - 2000.

HEARD
 Developed by Susan Estienne & Lucinda Franklin
 The Health, Economics & HIV/AIDS Research Division
 University of Natal
 King George V Avenue
 Durban 4014
 Tel: +27 31 260 2562
 Fax: +27 31 260 2567
 Email: freeman@un.ac.za
 Internet: www.unid.ac.za/heard
 We wish to acknowledge the assistance of staff at Eduland in the development of this output. In particular, we wish to thank Daniel Wilson for his invaluable guidance, time and provision of resources.

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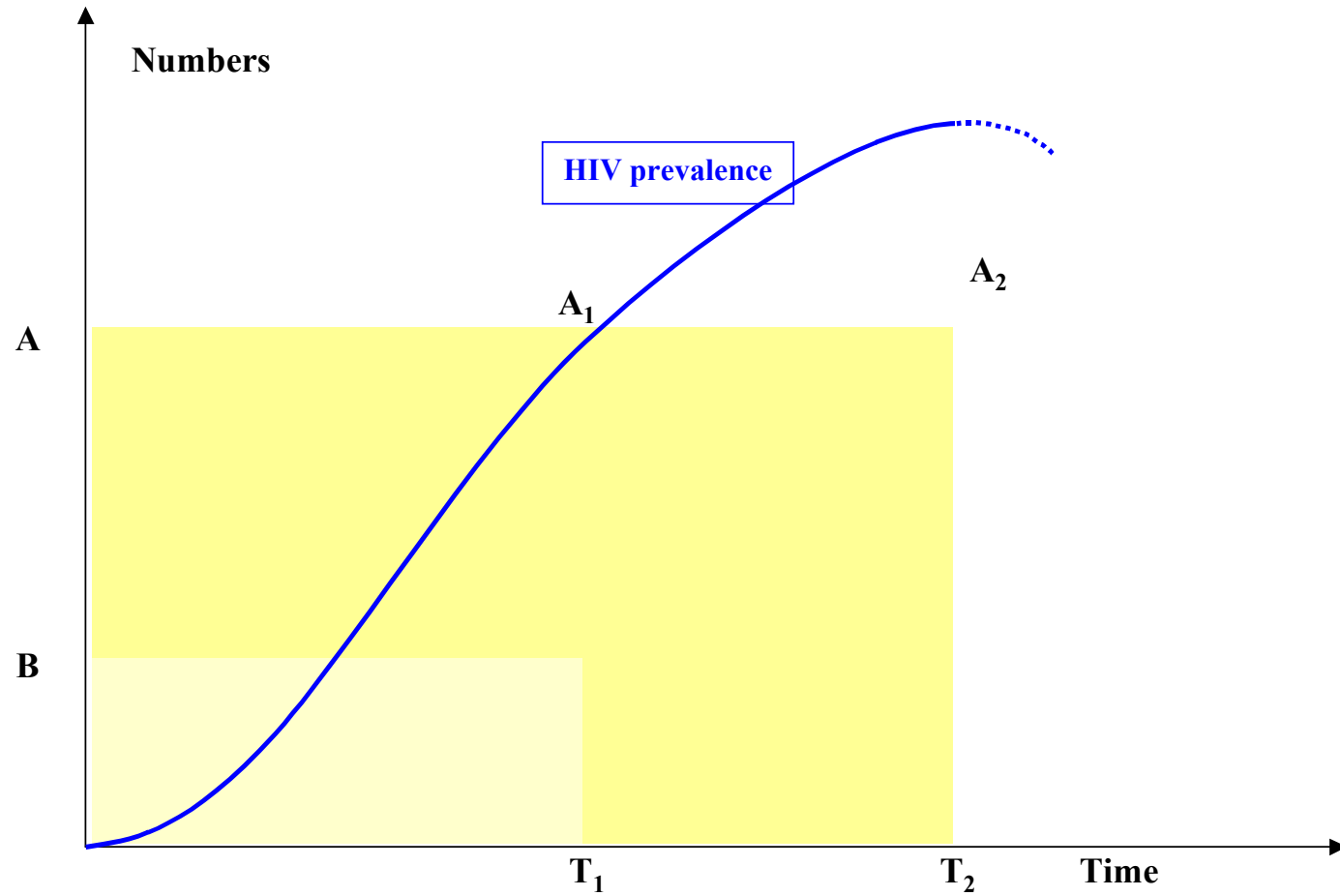
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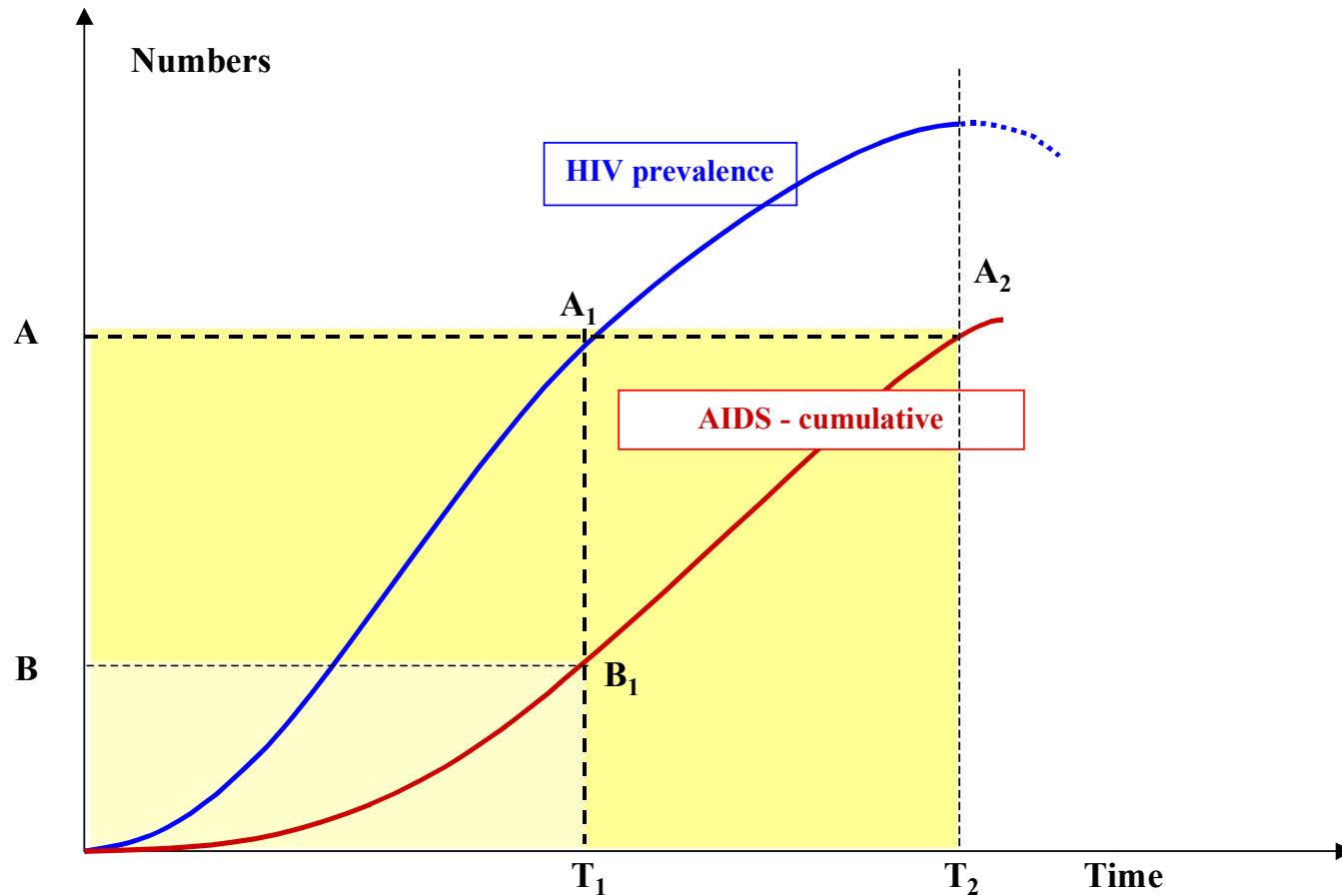
5. Propose an agenda for action

Epidemic Curve, HIV



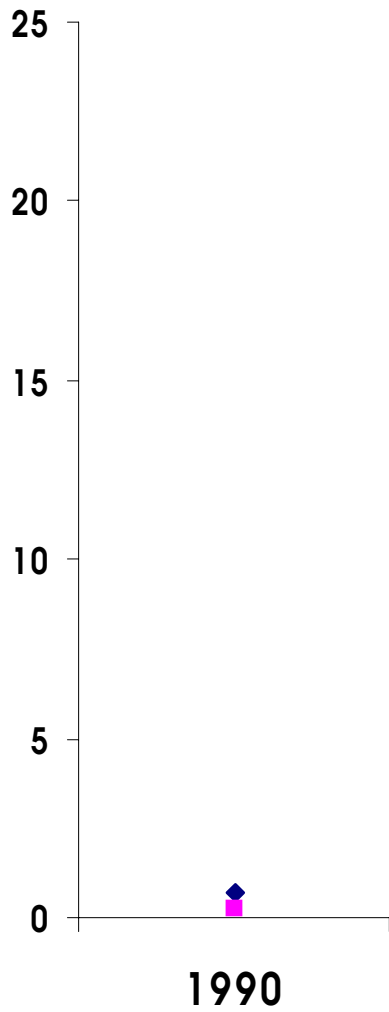
27Aug01 -Report I: *Epidem'gy & Lit.* p. 27

Epidemic Curves, HIV and AIDS

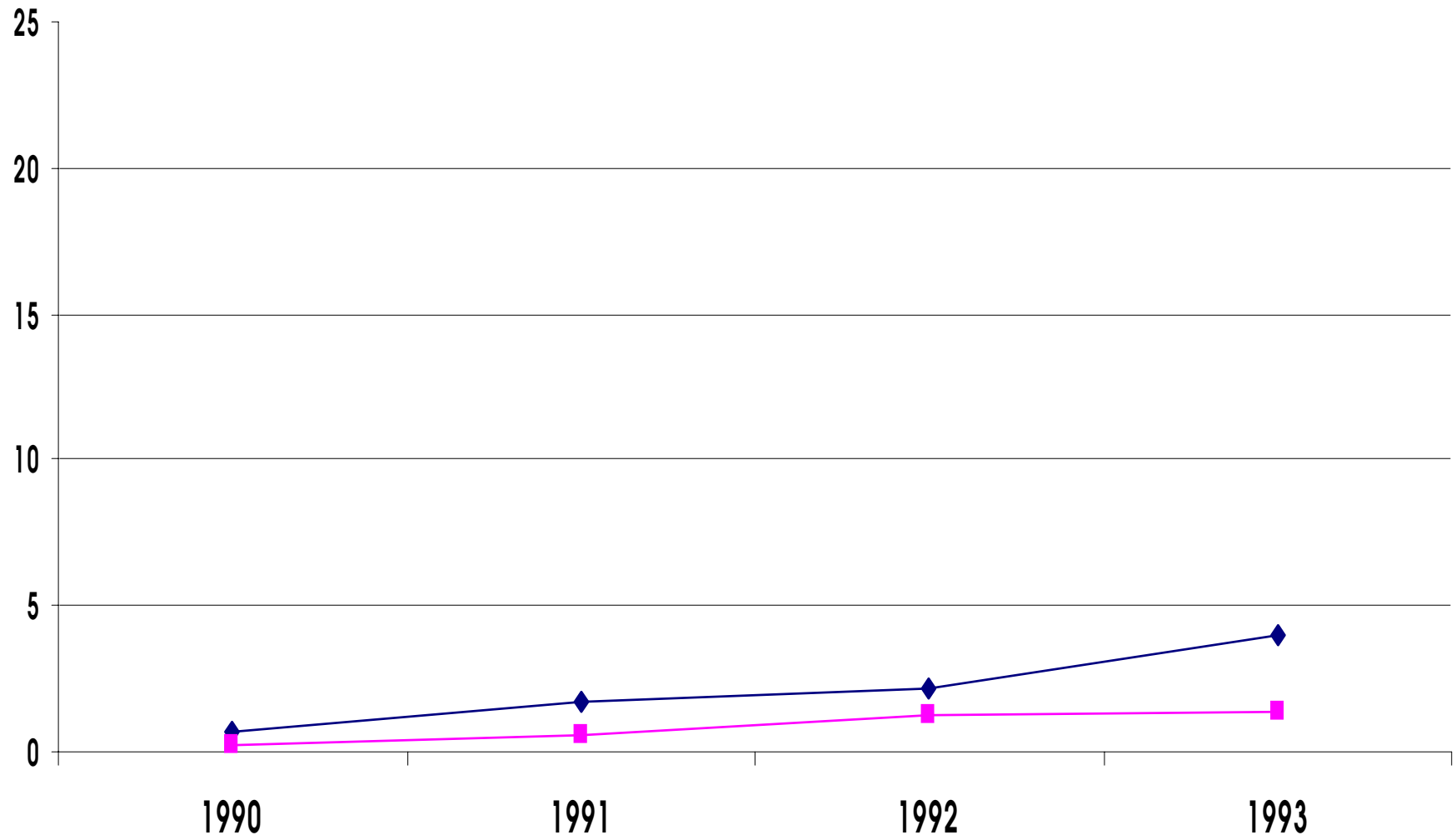


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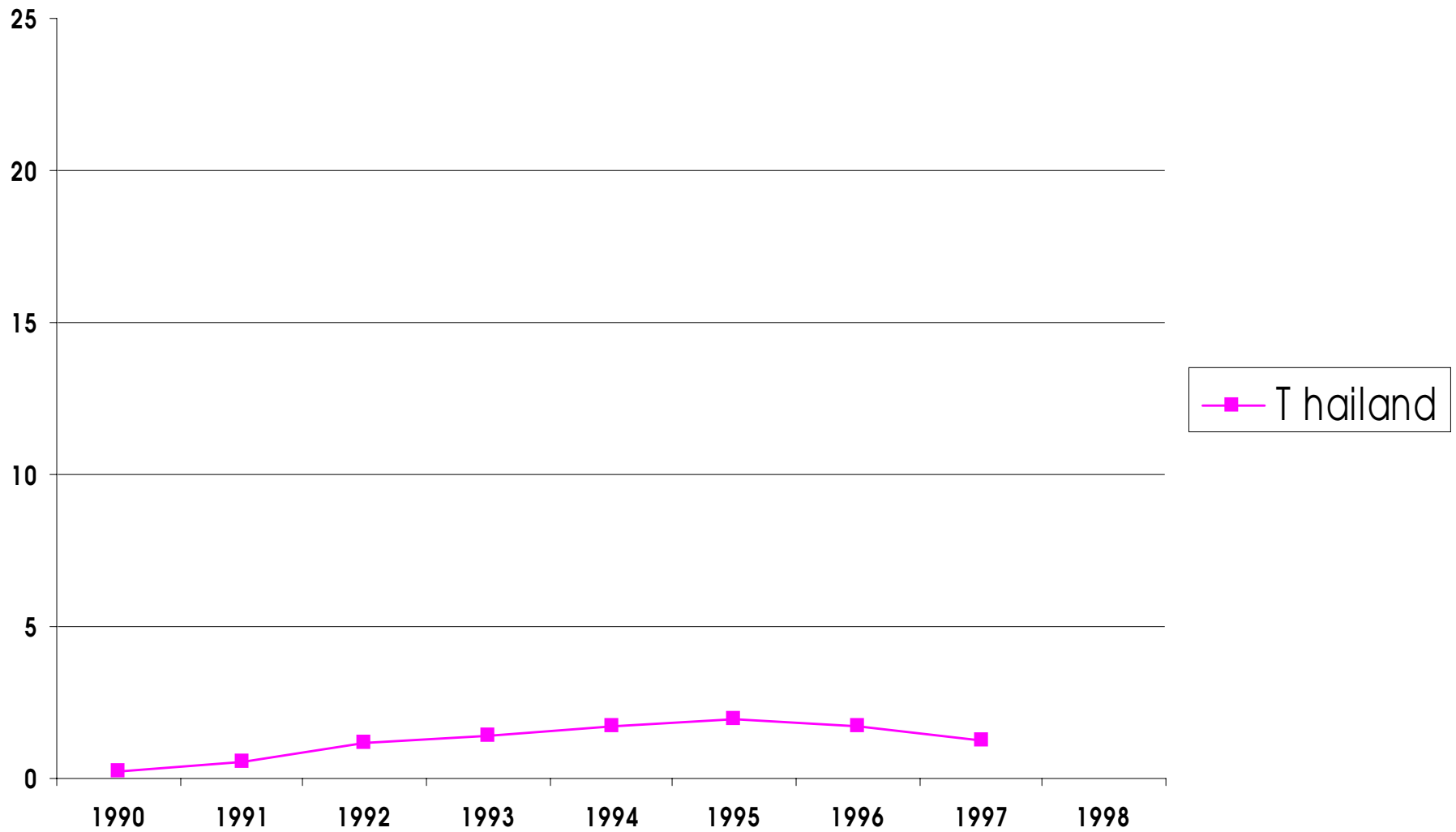
Ante-natal clinic prevalence (%)



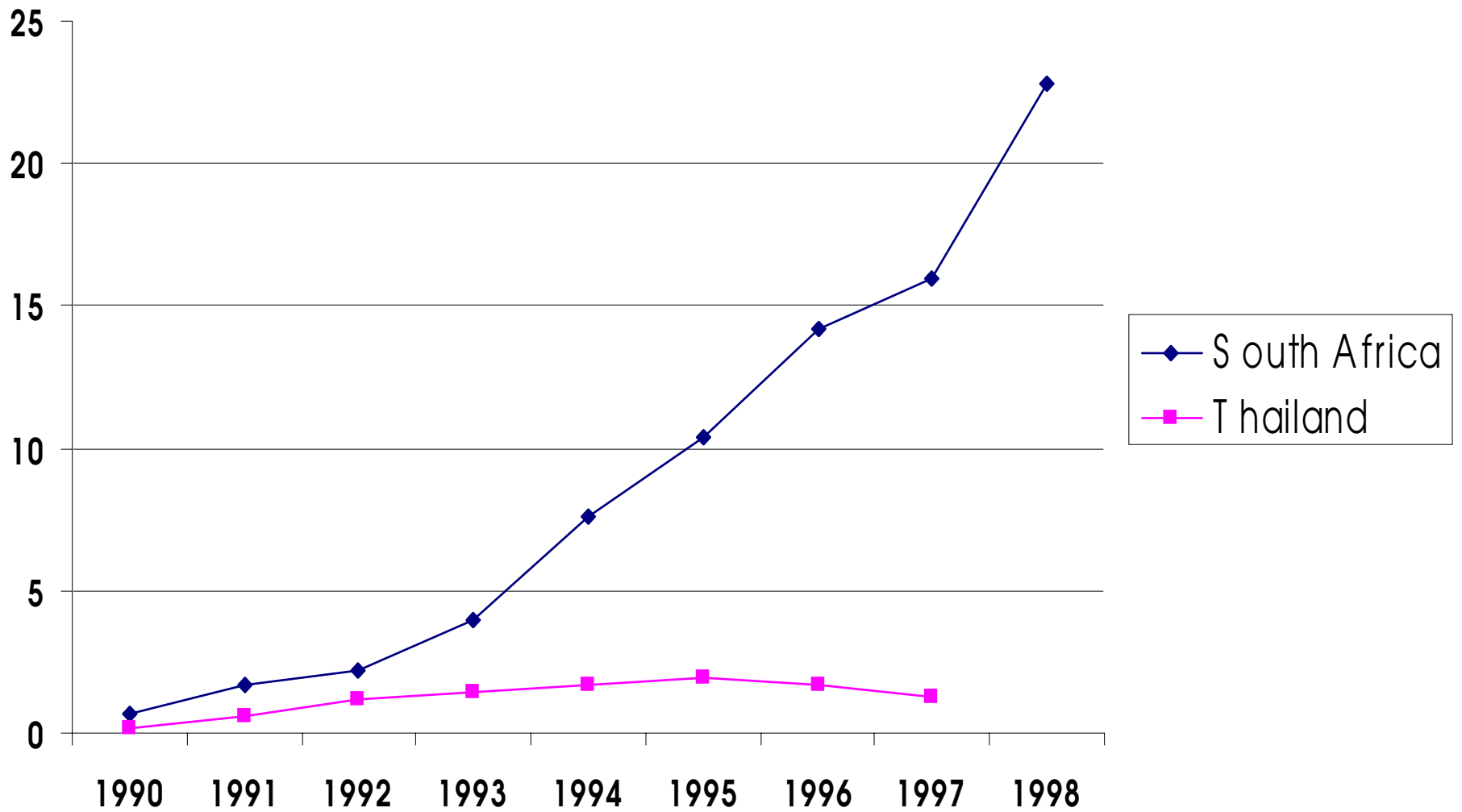
Ante-natal clinic prevalence %



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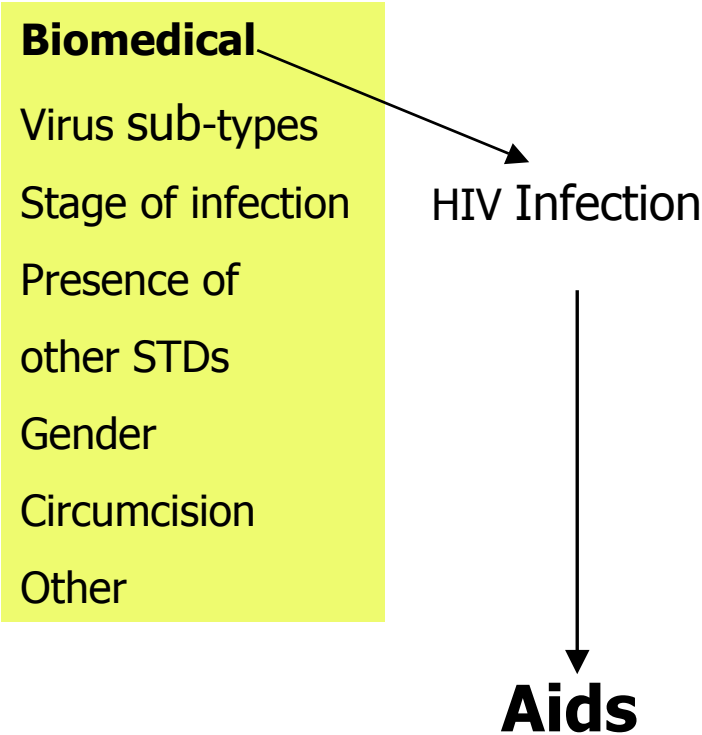
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HIV Epidemic – Determinants and Responses – A Medical View

Determinants



HIV Epidemic – Determinants and Responses – Sexual Behaviour

Determinants

Sexual behaviour

Rate of partner change
Concurrent partners
Sexual mixing patterns
Sexual practices
Condom use
Other

Biomedical

Virus sub-types
Stage of infection
Presence of other STDs
Gender
Circumcision
Other

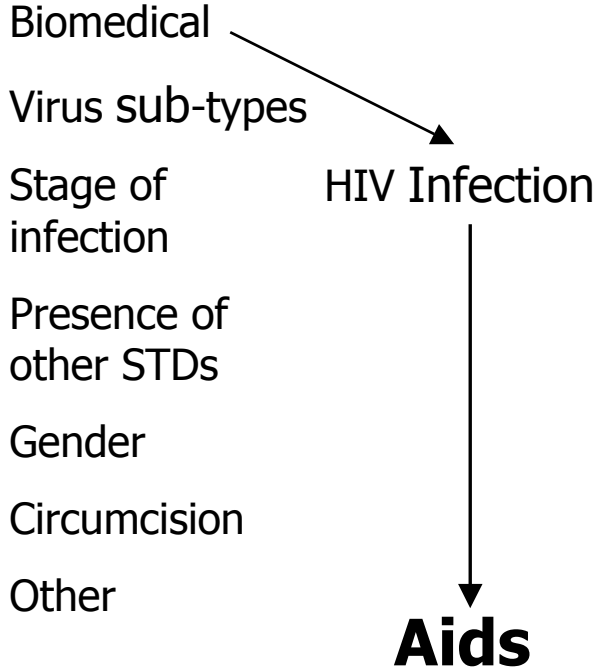
HIV Infection

Aids

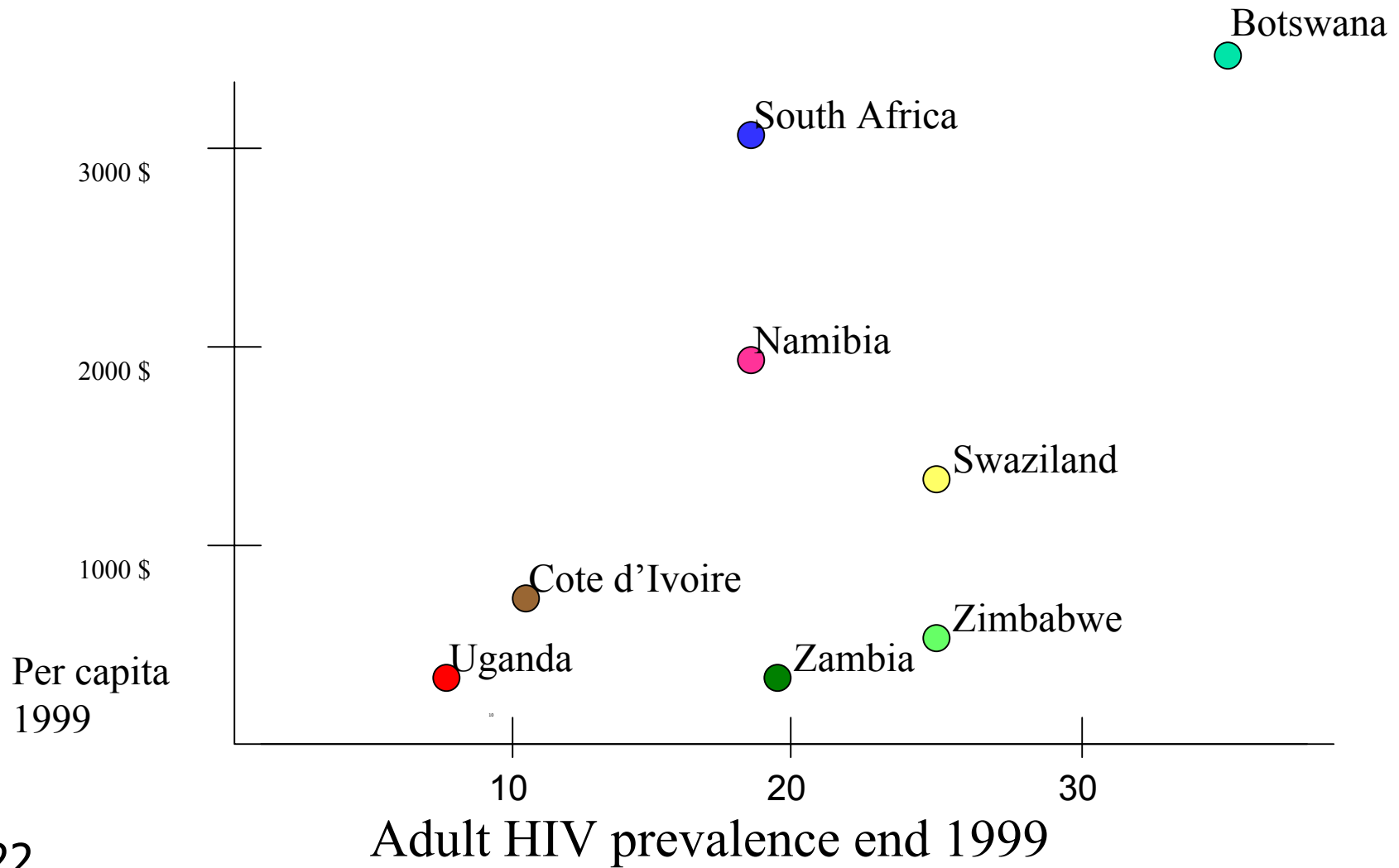
HIV Epidemic – Determinants and Responses – Upstream Causes

Determinants

<p>Macro-environment</p> <p>Wealth</p> <p>Income distribution</p> <p>Culture</p> <p>Religion</p> <p>Governance</p> <p>Other</p>	<p>Micro-environment</p> <p>Mobility</p> <p>Urbanisation</p> <p>Access to health care</p> <p>Levels of violence</p> <p>Women’s rights and status</p> <p>Other</p>	<p>Sexual behaviour</p> <p>Rate of partner change</p> <p>Concurrent partners</p> <p>Sexual mixing patterns</p> <p>Sexual practices</p> <p>Condom use</p> <p>Other</p>
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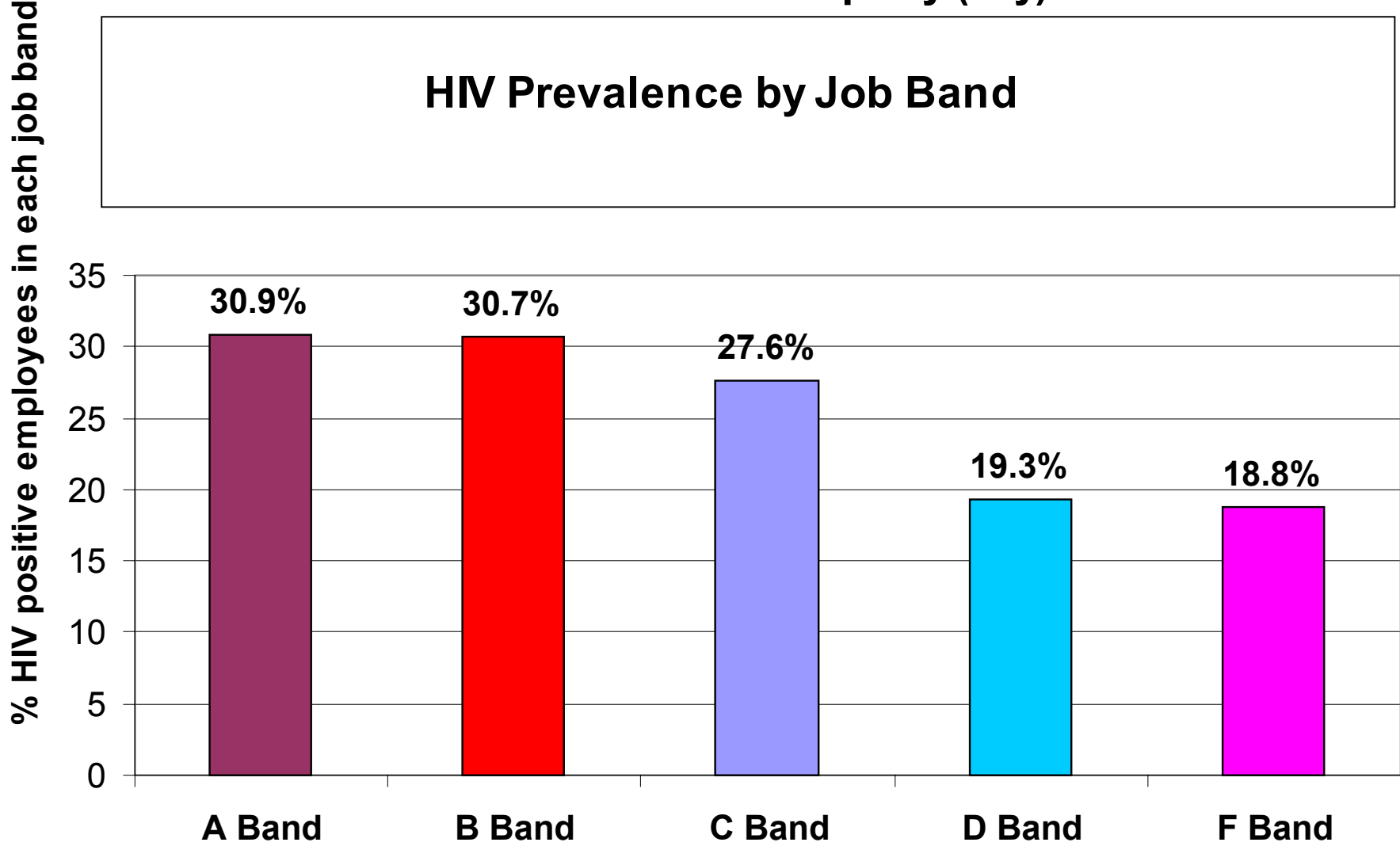


Wealth and HIV



Debswana Diamond Company (Pty) Ltd

HIV Prevalence by Job Band



HIV Epidemic – Where we responded

Determinants	Macro-environment	Micro-environment	Sexual behaviour	Biomedical
Interventions			Behaviour change communication Condom Promotion and marketing	STD treatment Blood safety Anti-retroviral therapy during pregnancy Provision of condoms

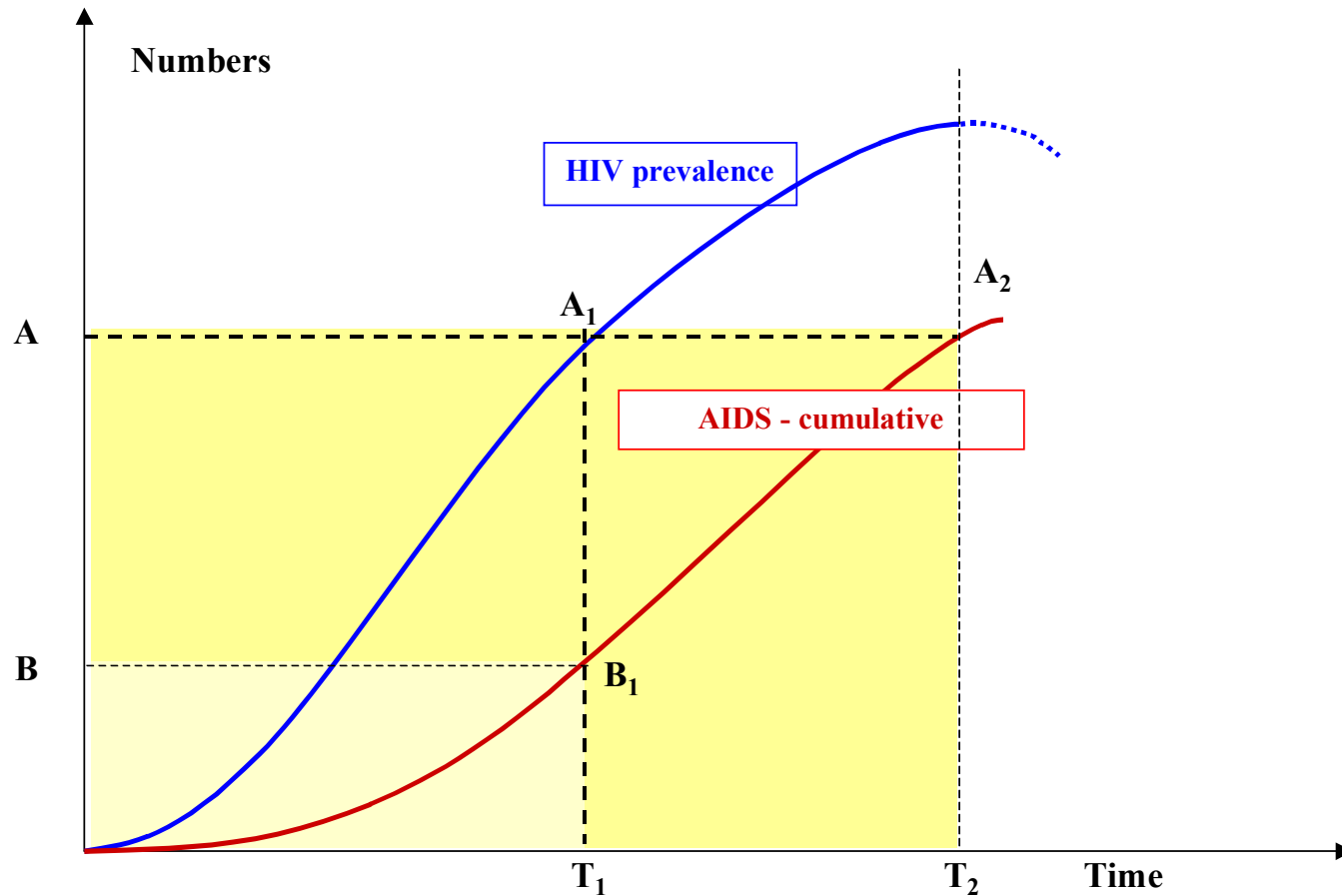
HIV Epidemic – Where we should respond

Determinants	Macro-environment	Micro-environment	Sexual behaviour	Biomedical
Interventions	<ul style="list-style-type: none"> Social policy – redistribution Legal Reform Human Rights Taxation Debt relief Terms of Trade 	<ul style="list-style-type: none"> Social Policy Economic Policy Legal Reform Employment legislation 	<ul style="list-style-type: none"> Behaviour change communication Condom promotion and marketing 	<ul style="list-style-type: none"> STD treatment Blood safety Anti-retroviral therapy during pregnancy Provision of condoms

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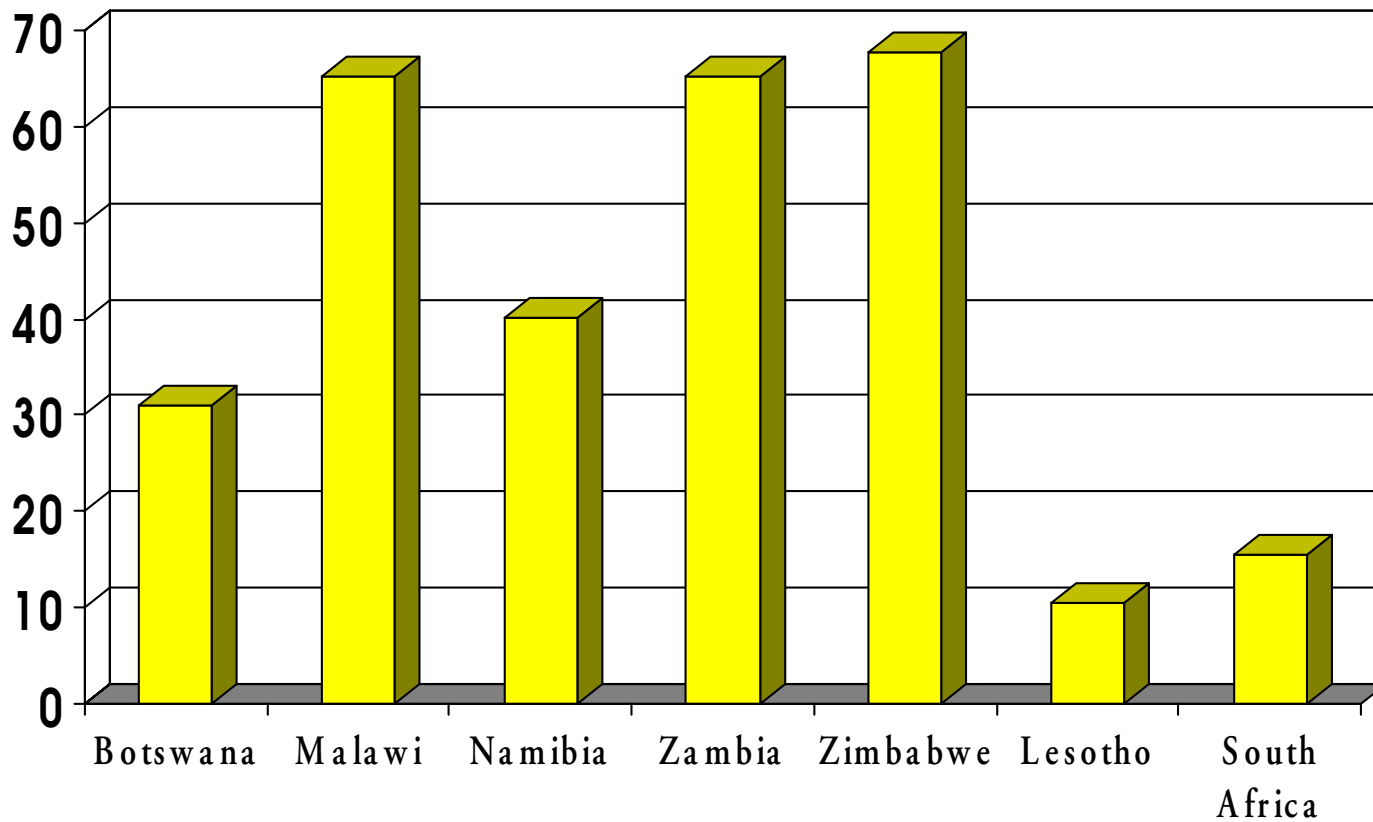
Epidemic Curves, HIV and AIDS



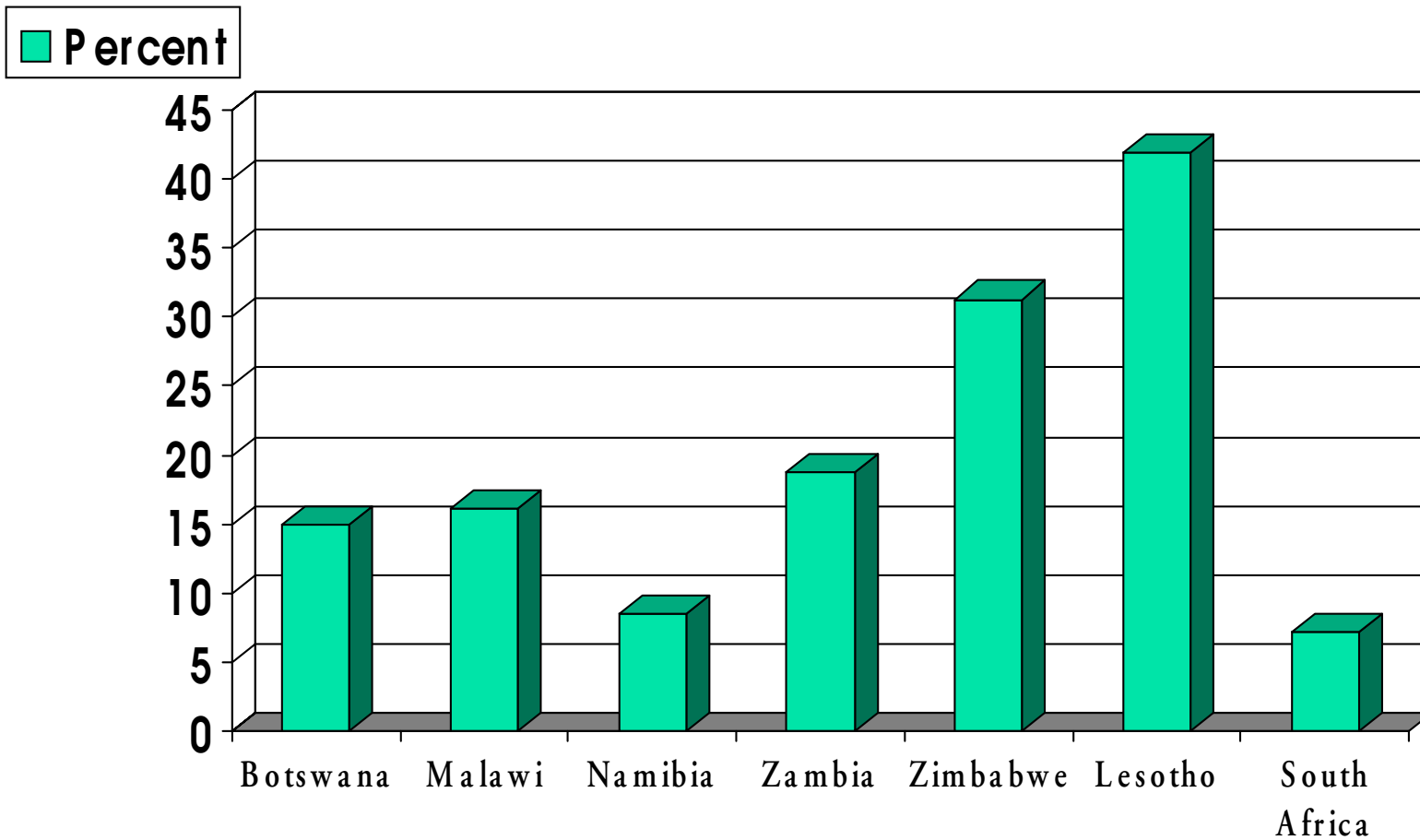
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Percent who know a close friend or relative who died of AIDS?

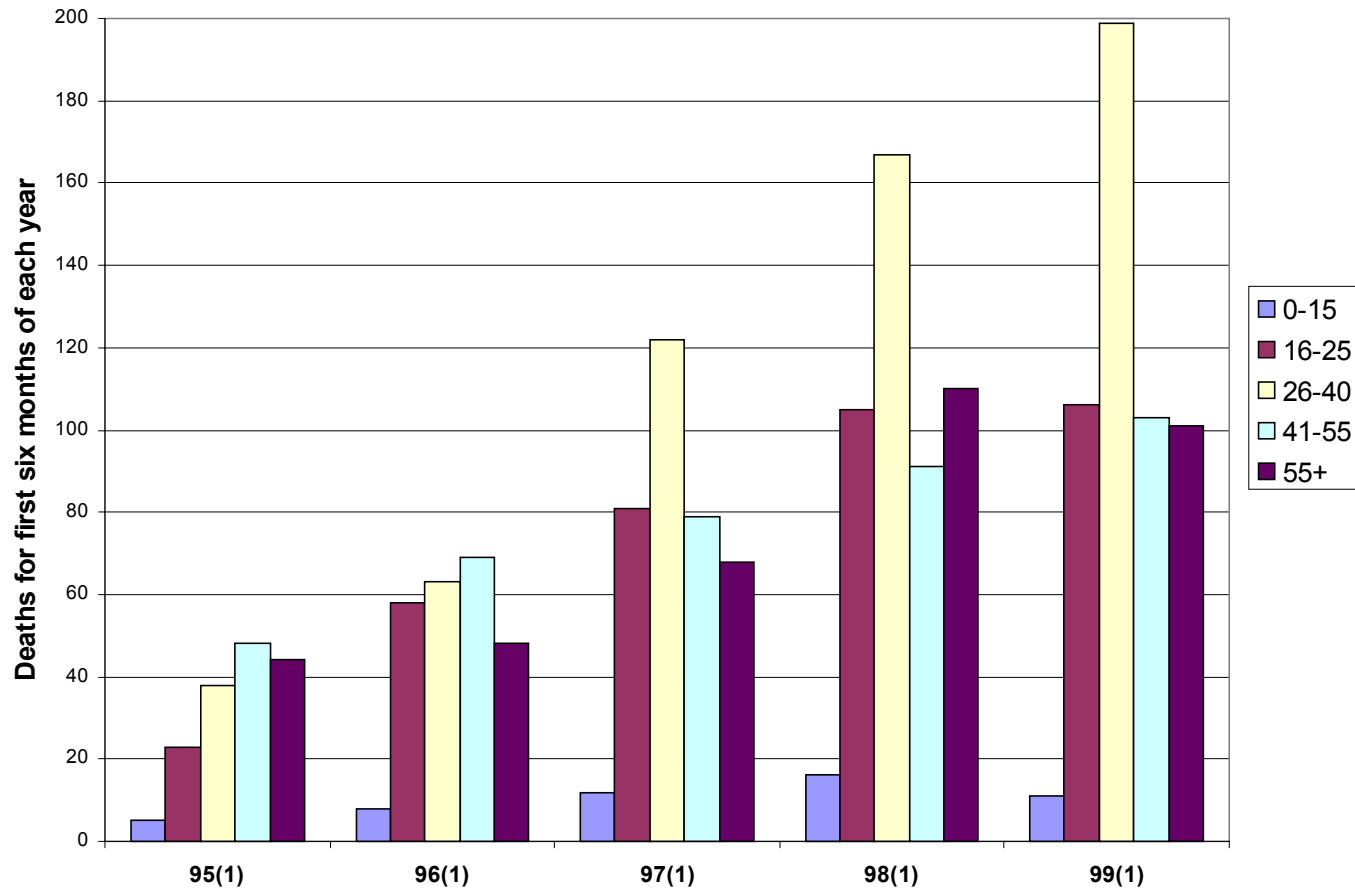
■ Percent



Percent whose physical health reduced the amount of work they do?

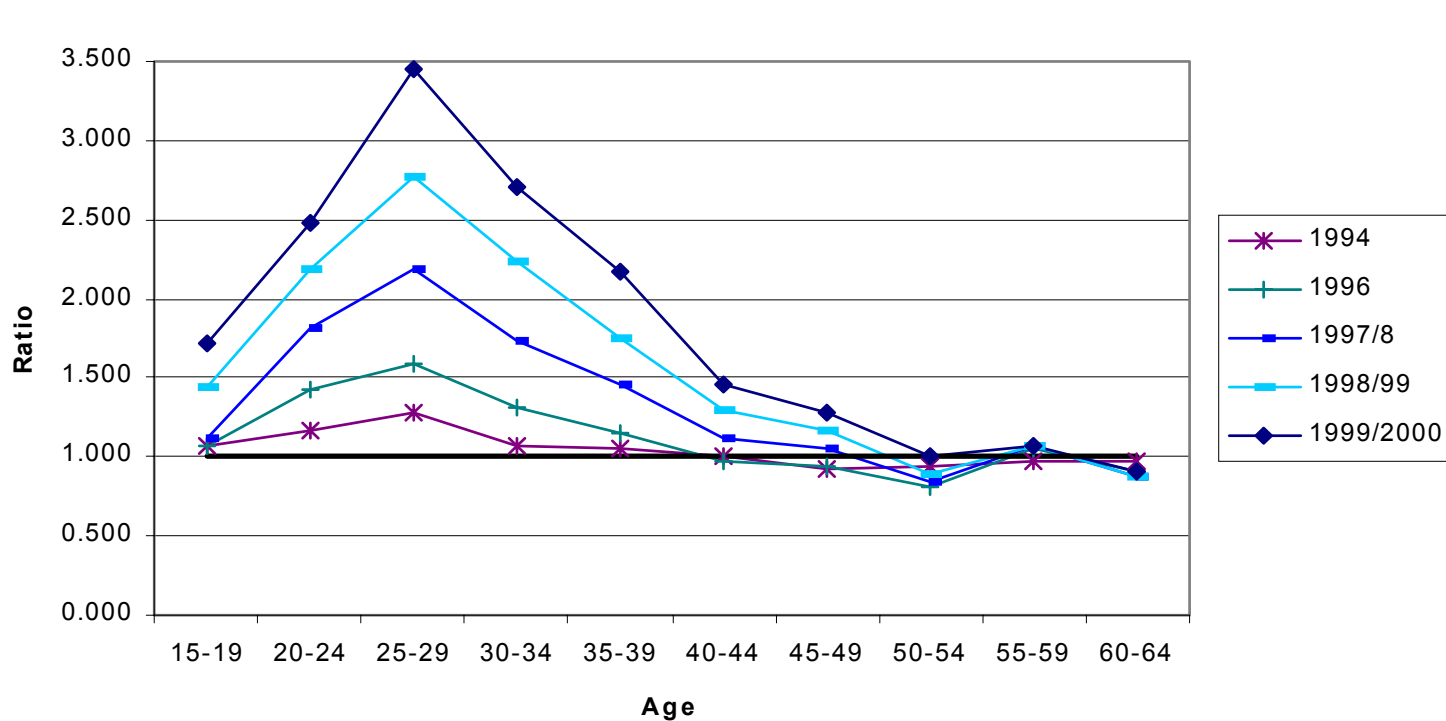


Mortality in Swaziland



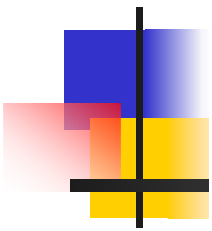
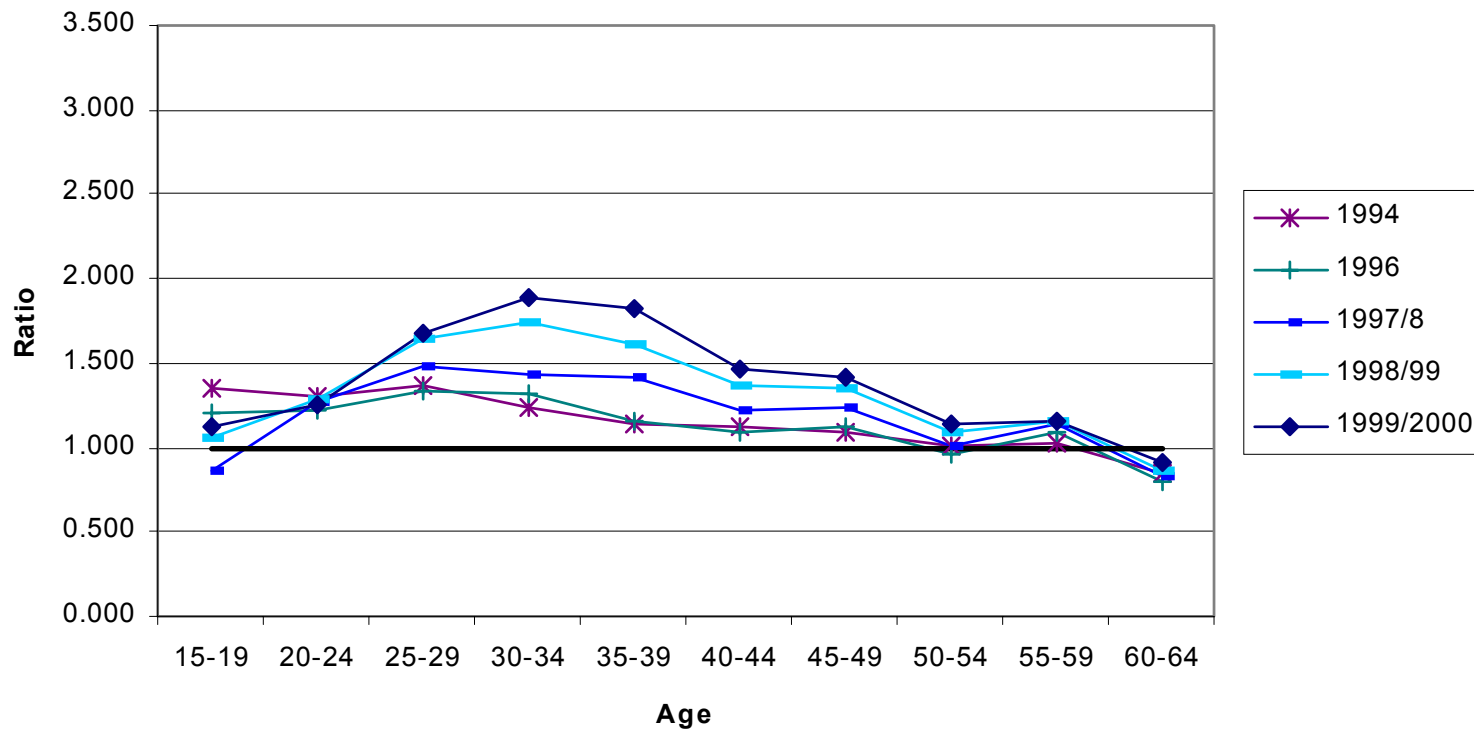
Estimated increase in adult death rates relative to the 1985 rates

Women

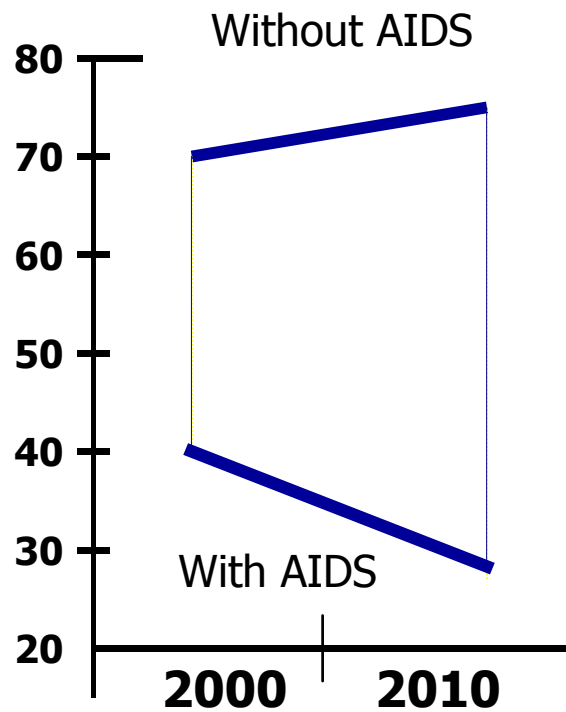


Estimated increase in adult death rates relative to the 1985 rates

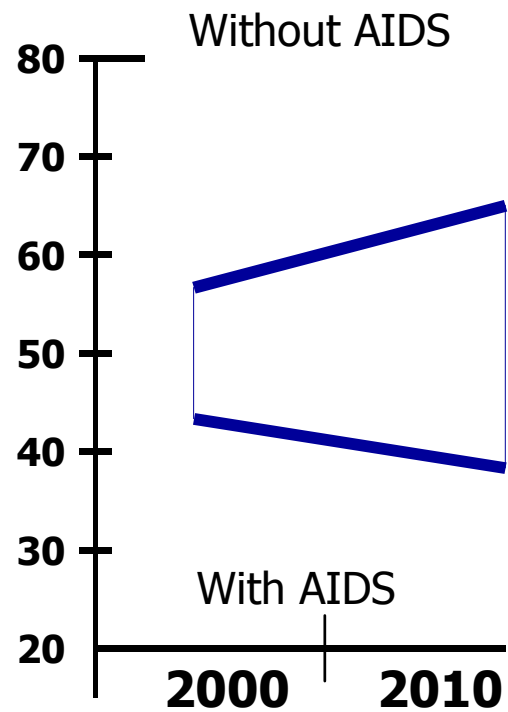
Men



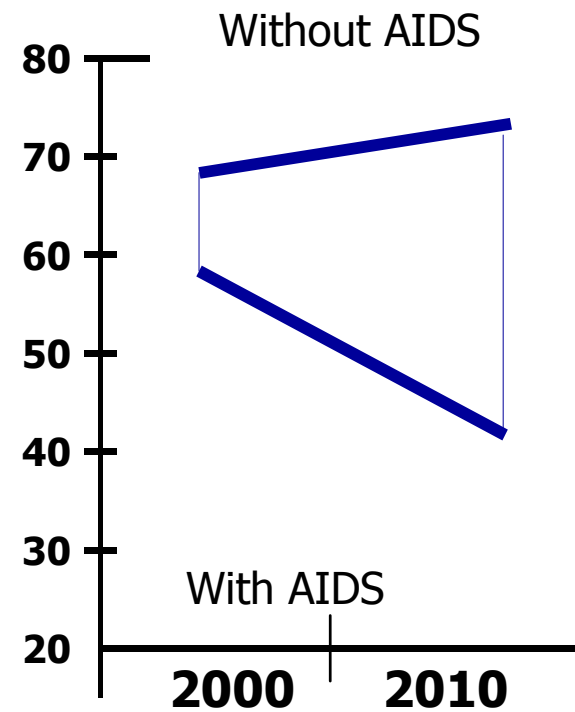
Life expectancy 2000 and 2010



Botswana



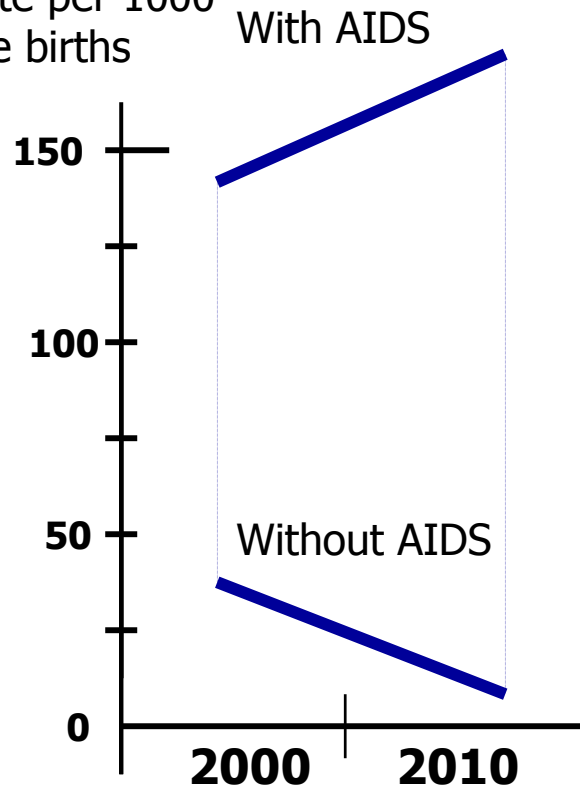
Cote d'Ivoire



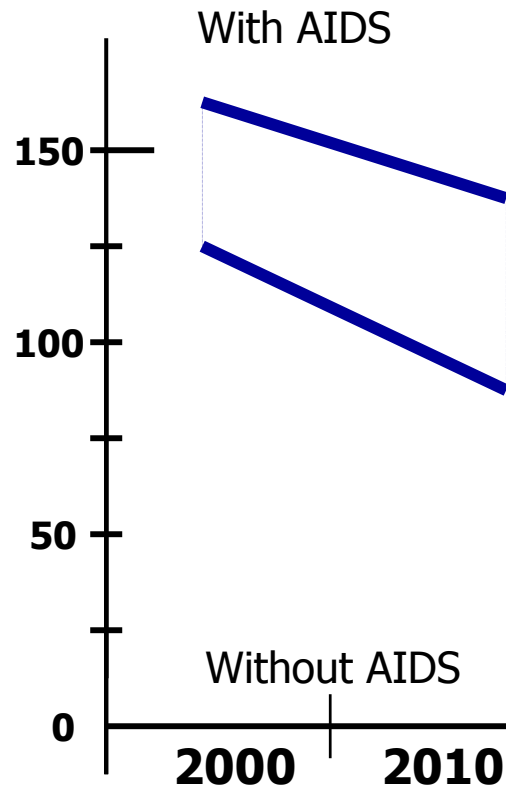
South Africa

Under Five Mortality 2000 and 2010

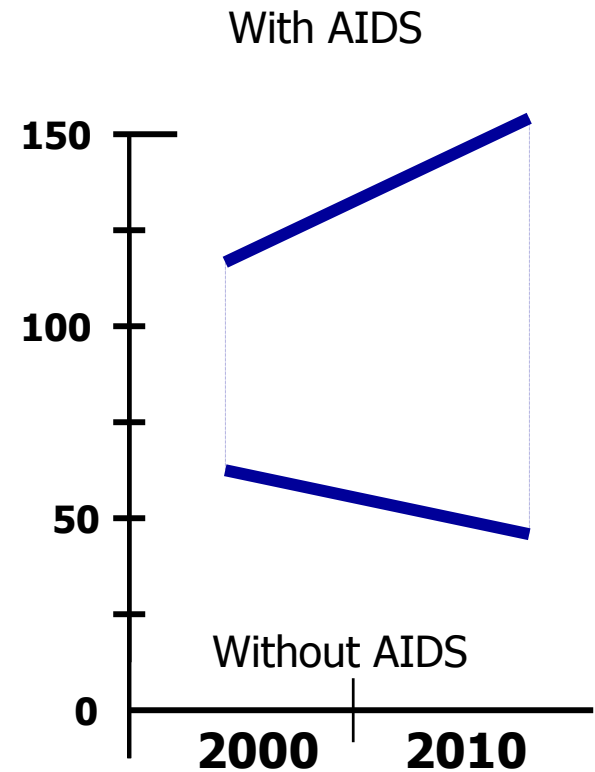
Rate per 1000
live births



Botswana

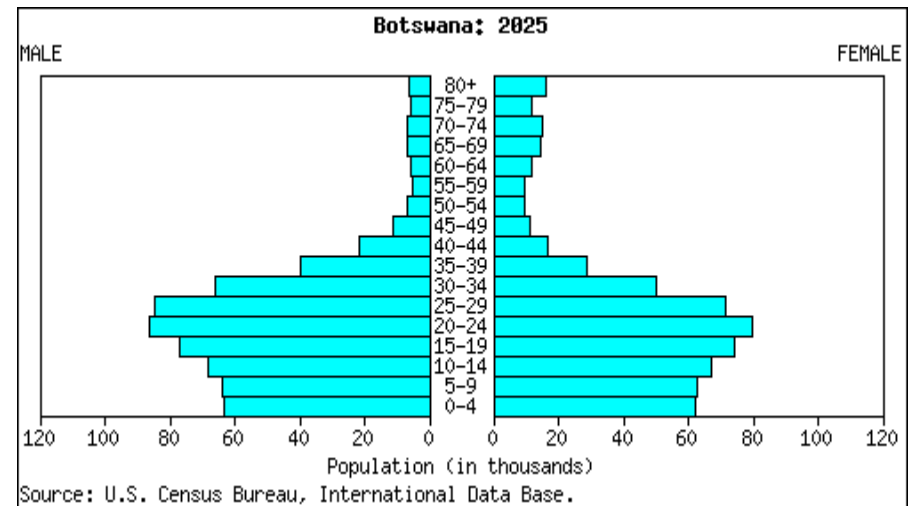
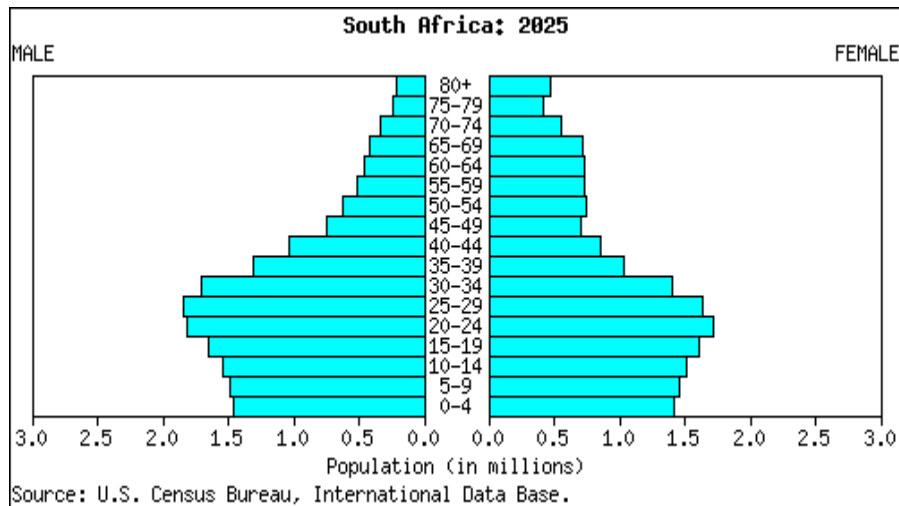
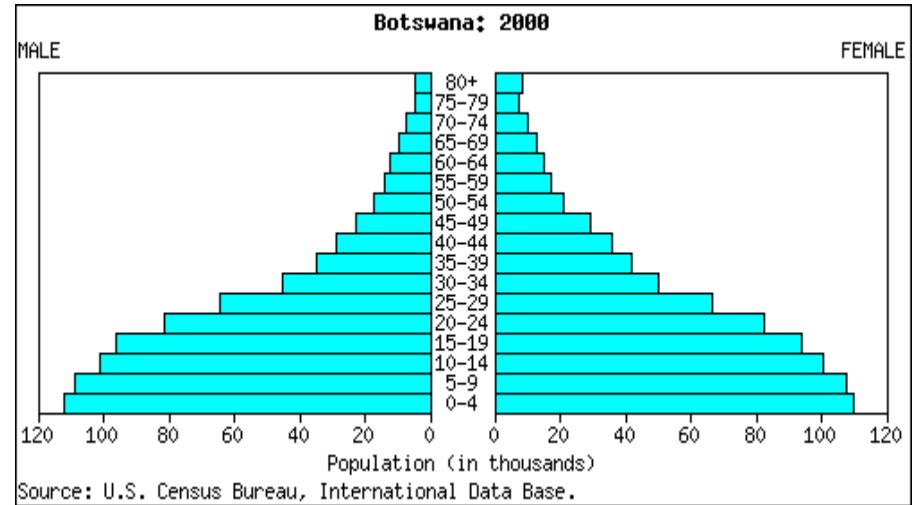
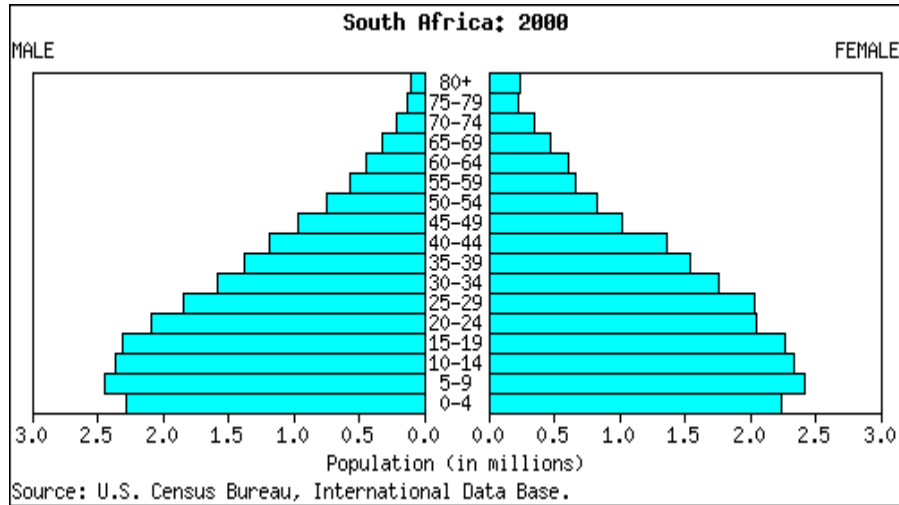


Cote d'Ivoire



South Africa

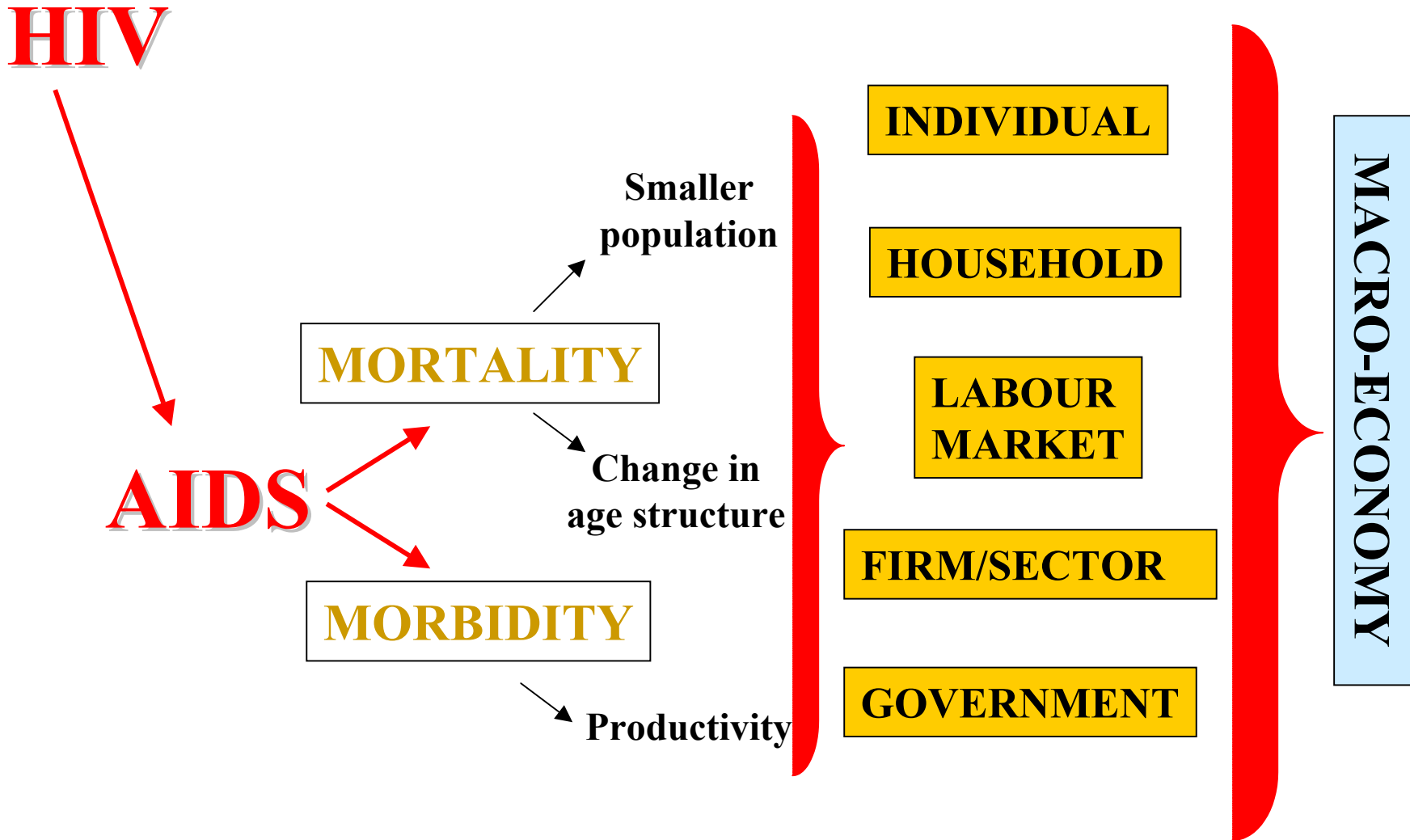
Changes in Population Structure due to AIDS – 2000-2025



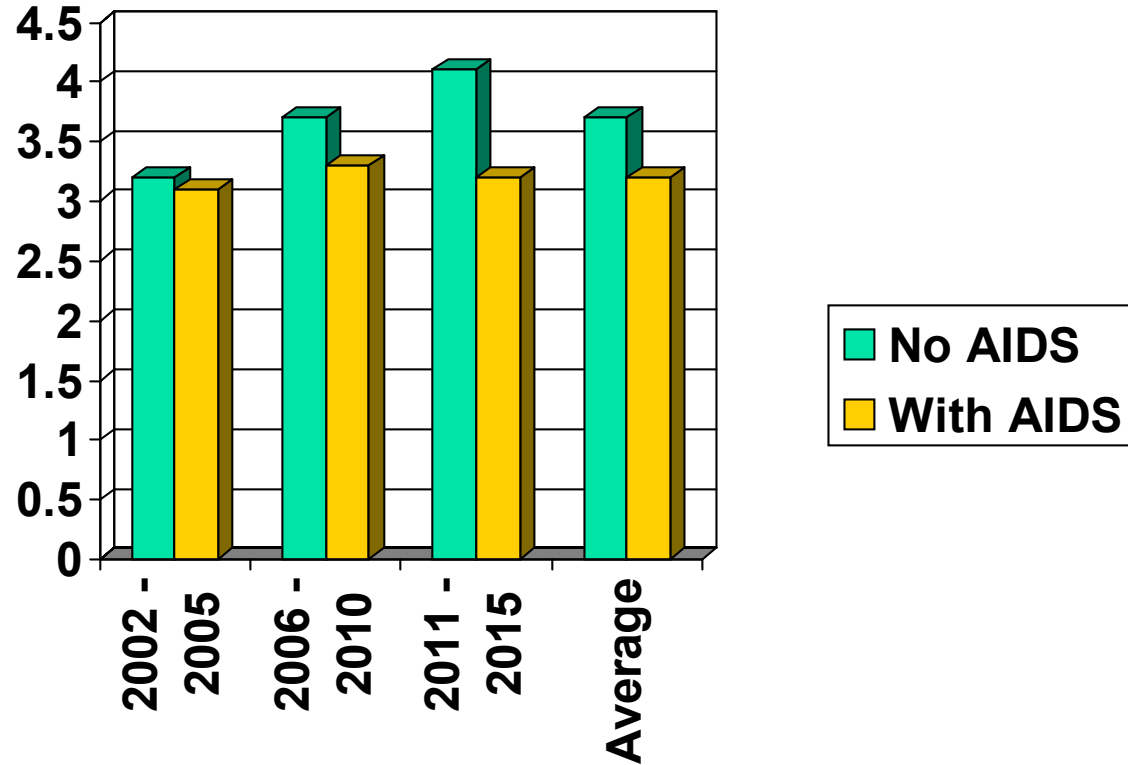
South Africa

Botswana

Pathways to Economic Impact



Forecast GDP Growth 2002-15



Conclusions re Households

- Households will try to adapt.
- New forms of household.
- Coping & distress can both be found.

Assets will be sold.

- Households → poorer
- Households → disappear

Zambia

5 year retrospective study of AIDS-affected families
(232 urban +101 rural)

Monthly disposable income fell by >80%

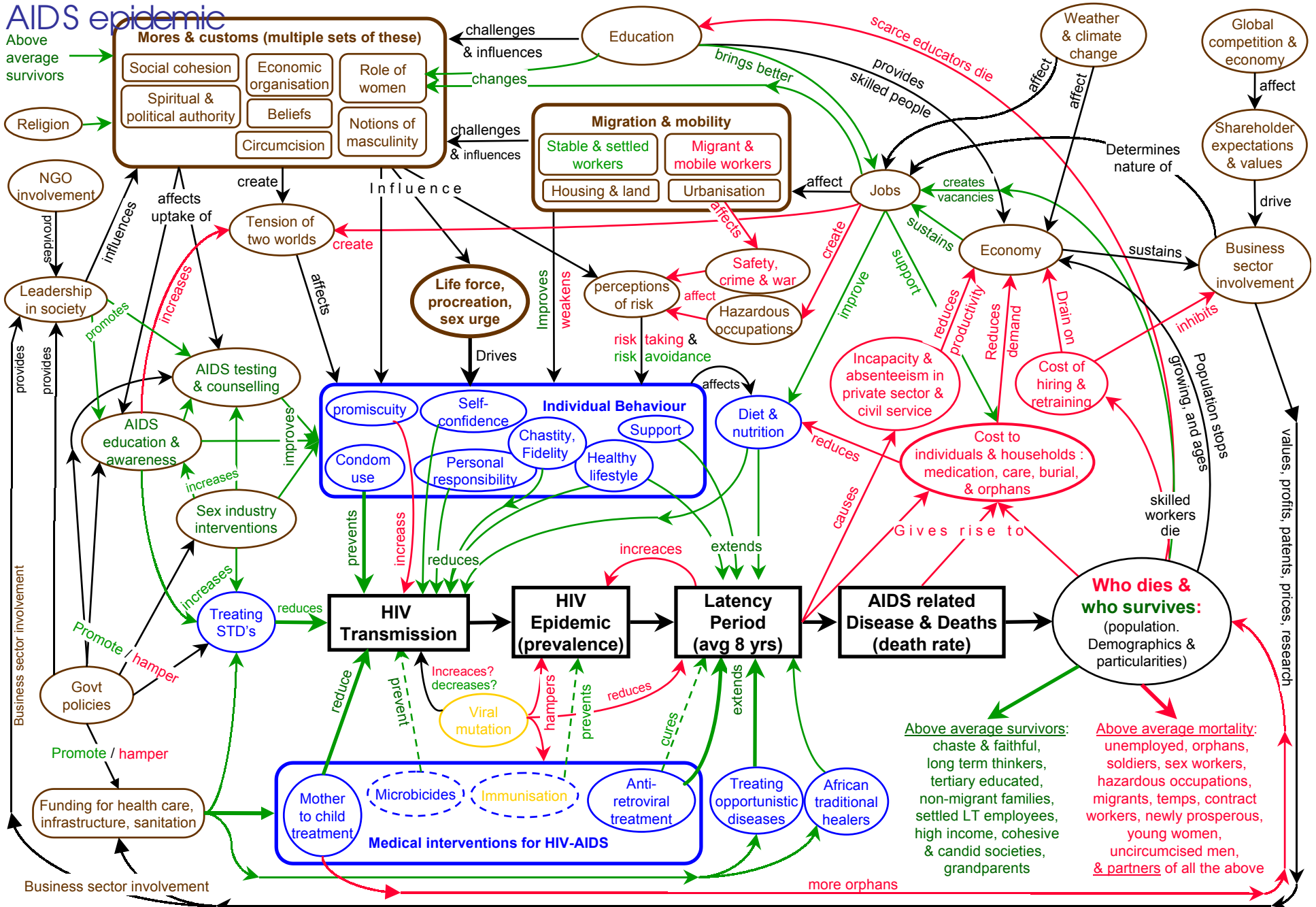
Rakai, Uganda

Bicycles & radios in houses with adult AIDS death

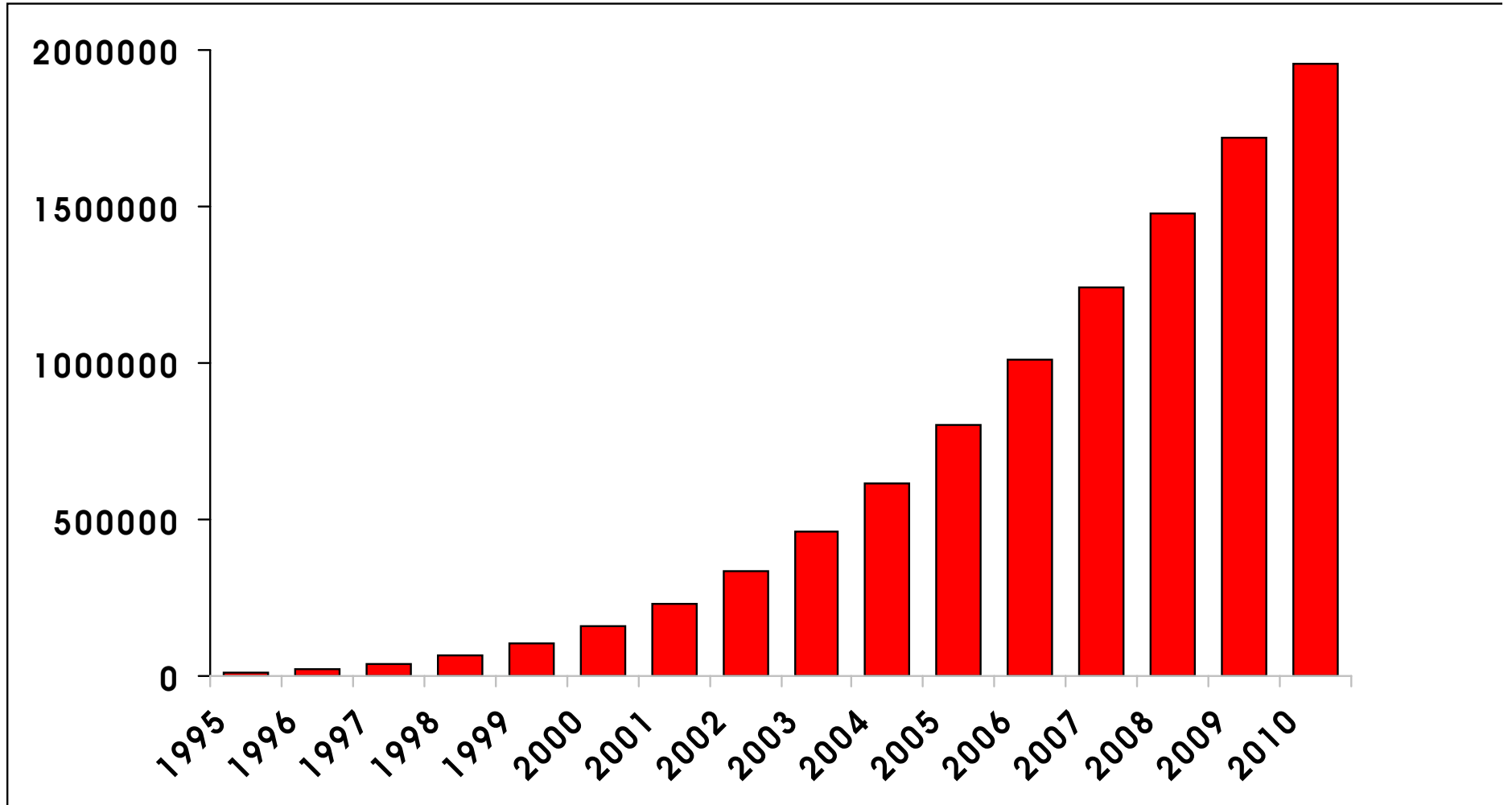
	<i>Bike</i>	<i>Radio</i>
<i>First visit</i>	39	40
<i>Last visit</i>	35	36

Autonomy of HIV in Complex Societies - A systems model of the S'n Africa

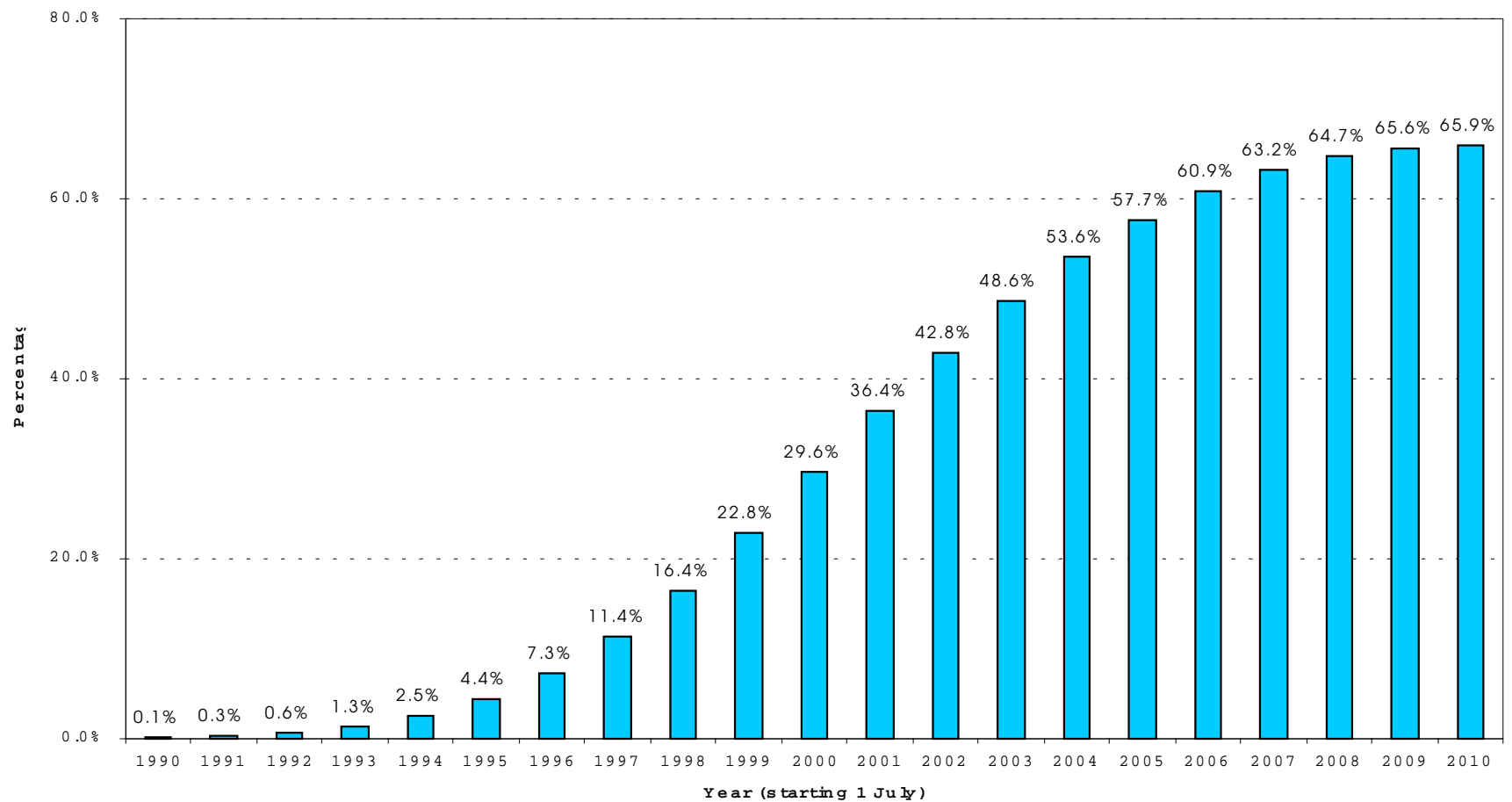
AIDS epidemic



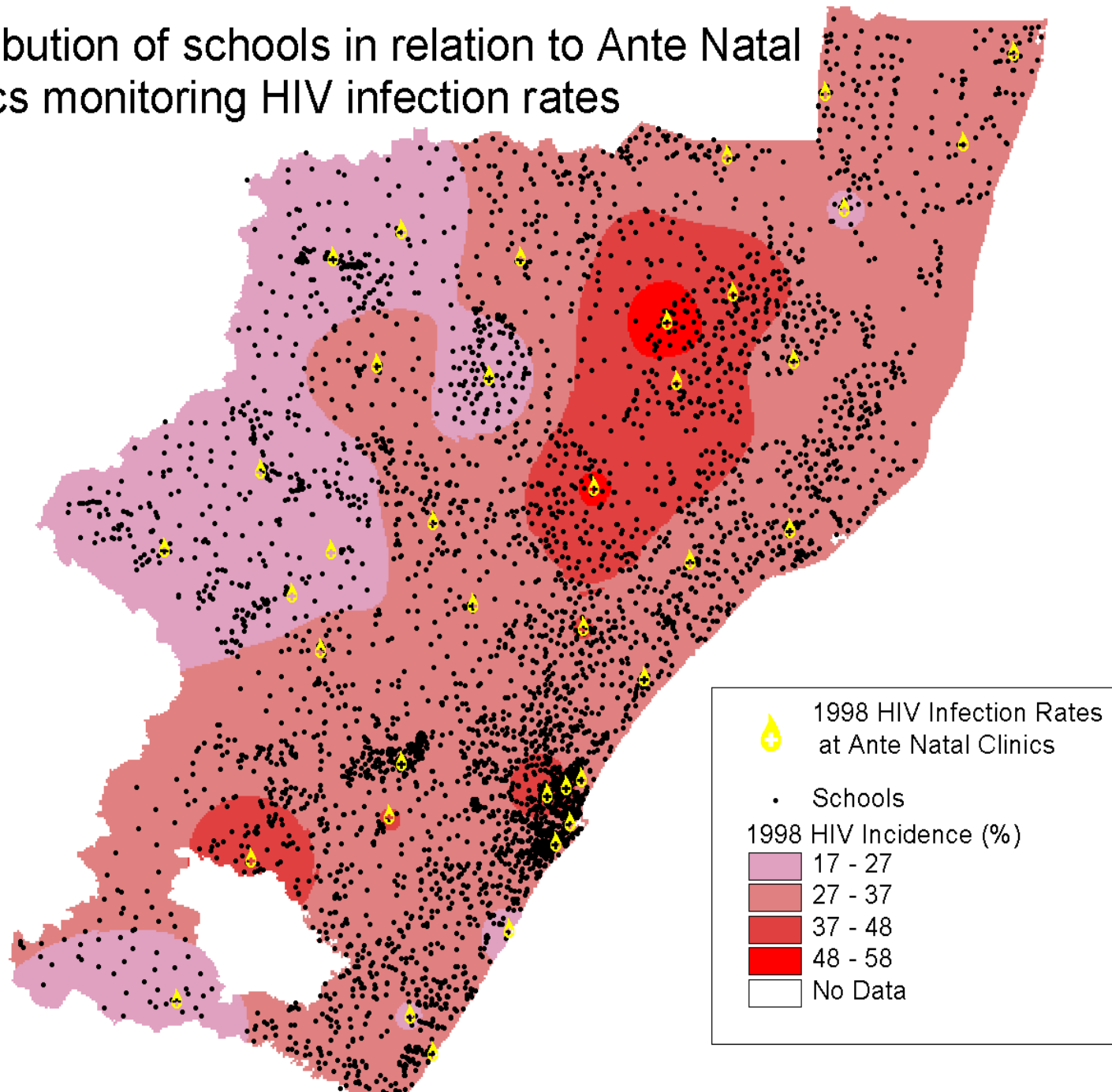
AIDS orphans in South Africa



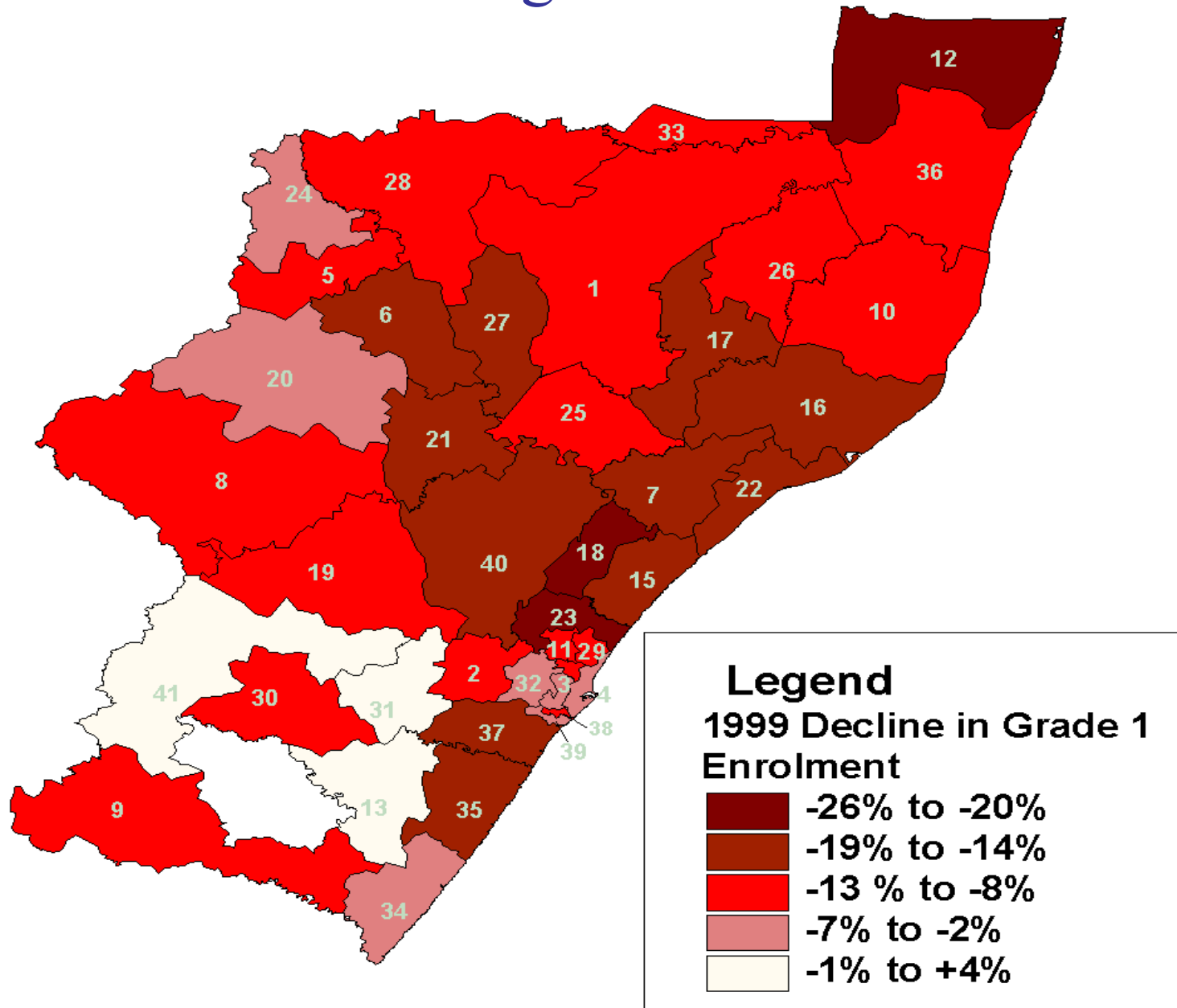
AIDS deaths as a % of total mortality ASSA2000 model (no interventions)



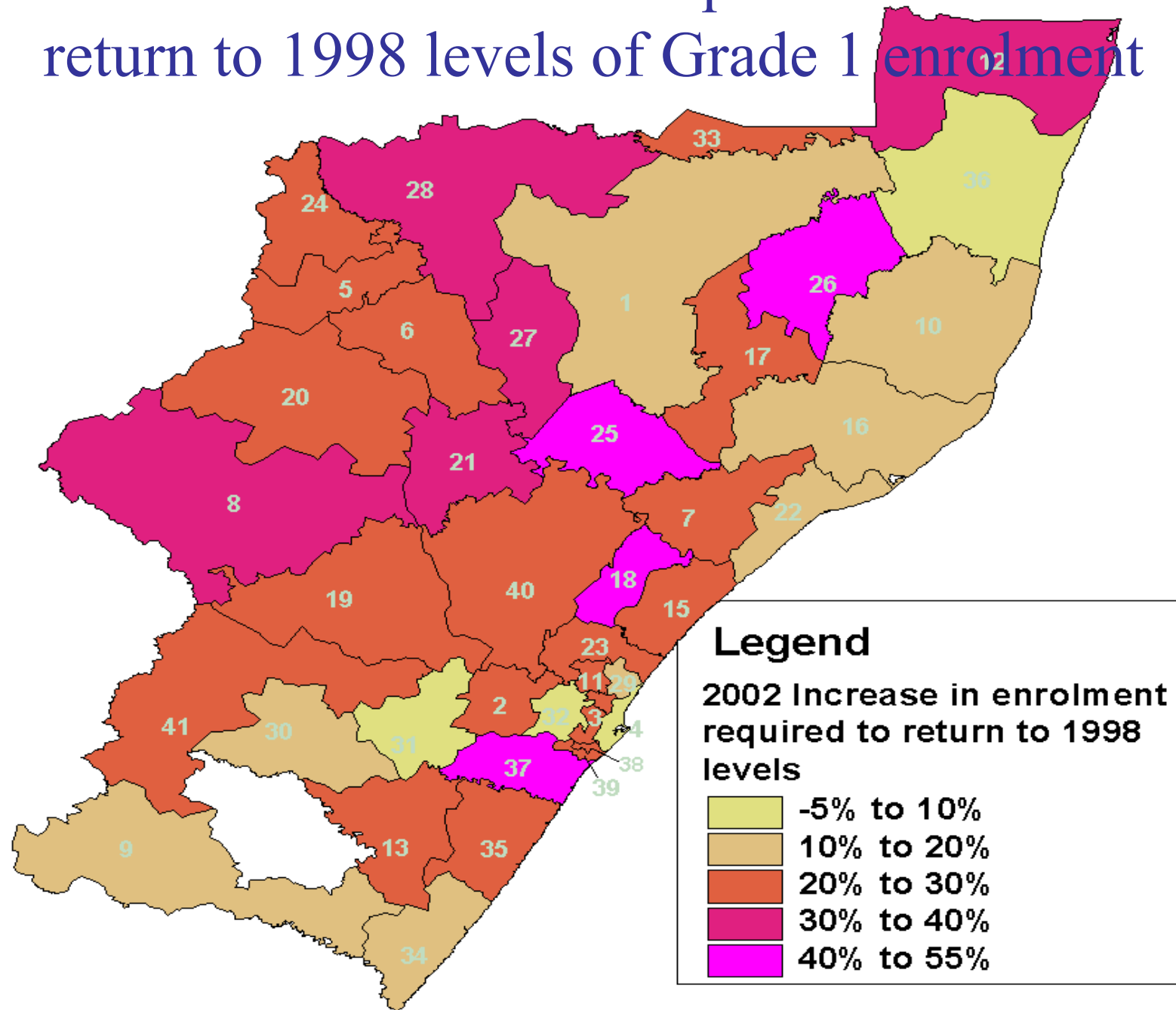
Distribution of schools in relation to Ante Natal Clinics monitoring HIV infection rates



1998 - 1999 Change in Grade 1 Enrolment



Increase in enrolment required in 2002 to return to 1998 levels of Grade 1 enrolment



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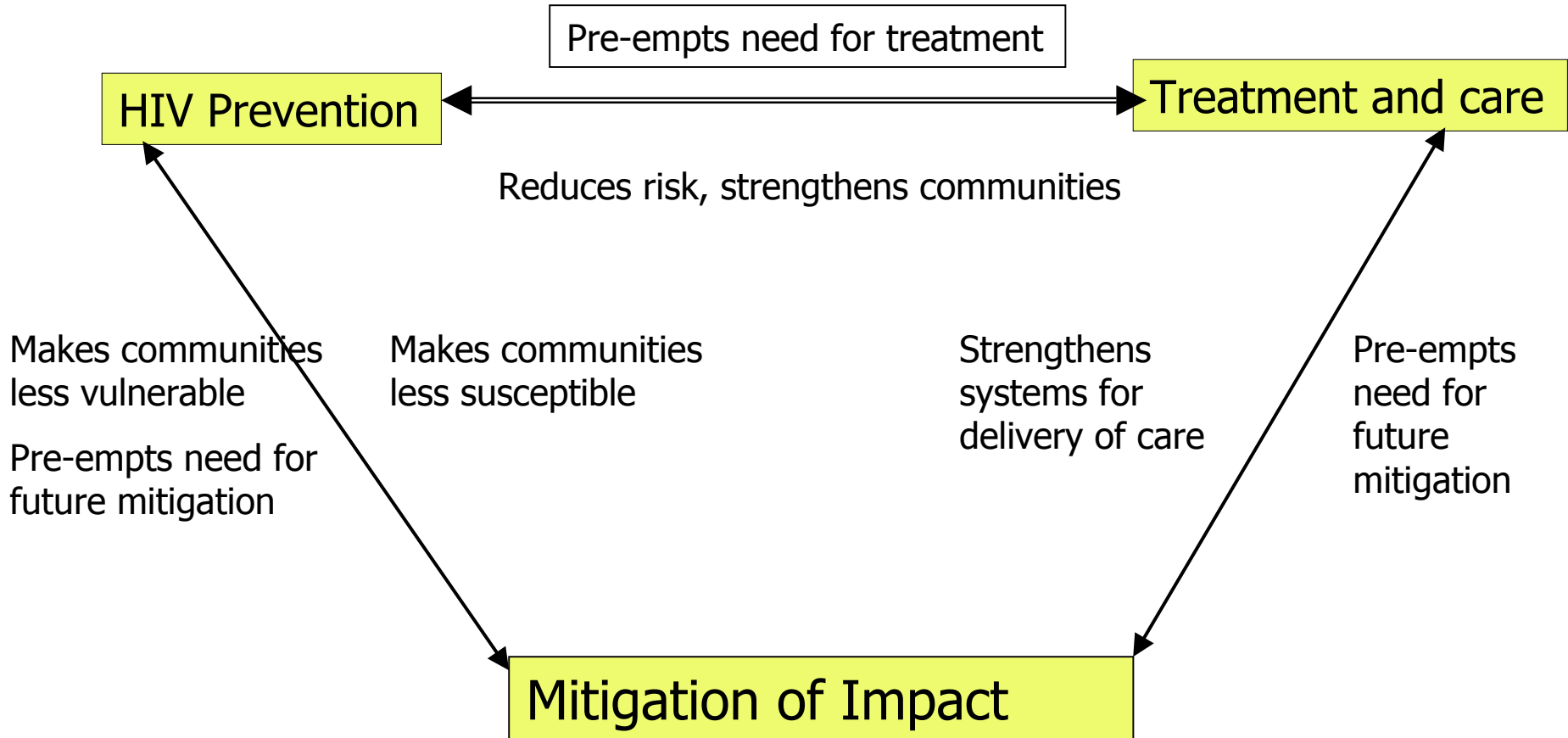
9/11: The Day the World Changed & HIV/AIDS

- **Focus:** switching to terrorism.
- **Context:** global economic slowdown creates an environment for HIV spread.
- **Resources:**
 - international aid will follow the focus.
 - African governments' own resources reduced.

The Priorities

- prevention and mitigation for the next generation – “towards an AIDS free generation”
- opportunity and rights for women
- leadership
- Put HIV/AIDS into development and development into HIV/AIDS

A Virtuous Circle



An Action Agenda

There are no:

- Simple solutions
- Short term solutions
- Technical/medical solutions
- Imposed solutions
- Money is not the answer
- Drugs are only part of the answer
- **A multisectoral response**