# Educators and HIV : Findings from a national study among educators.


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**Executive Director, HAST Programme, HSRC**



**Paper to be presented at the Fourth Annual UWC "HIV in Context" Research Symposium, 26-27 March, 2012**


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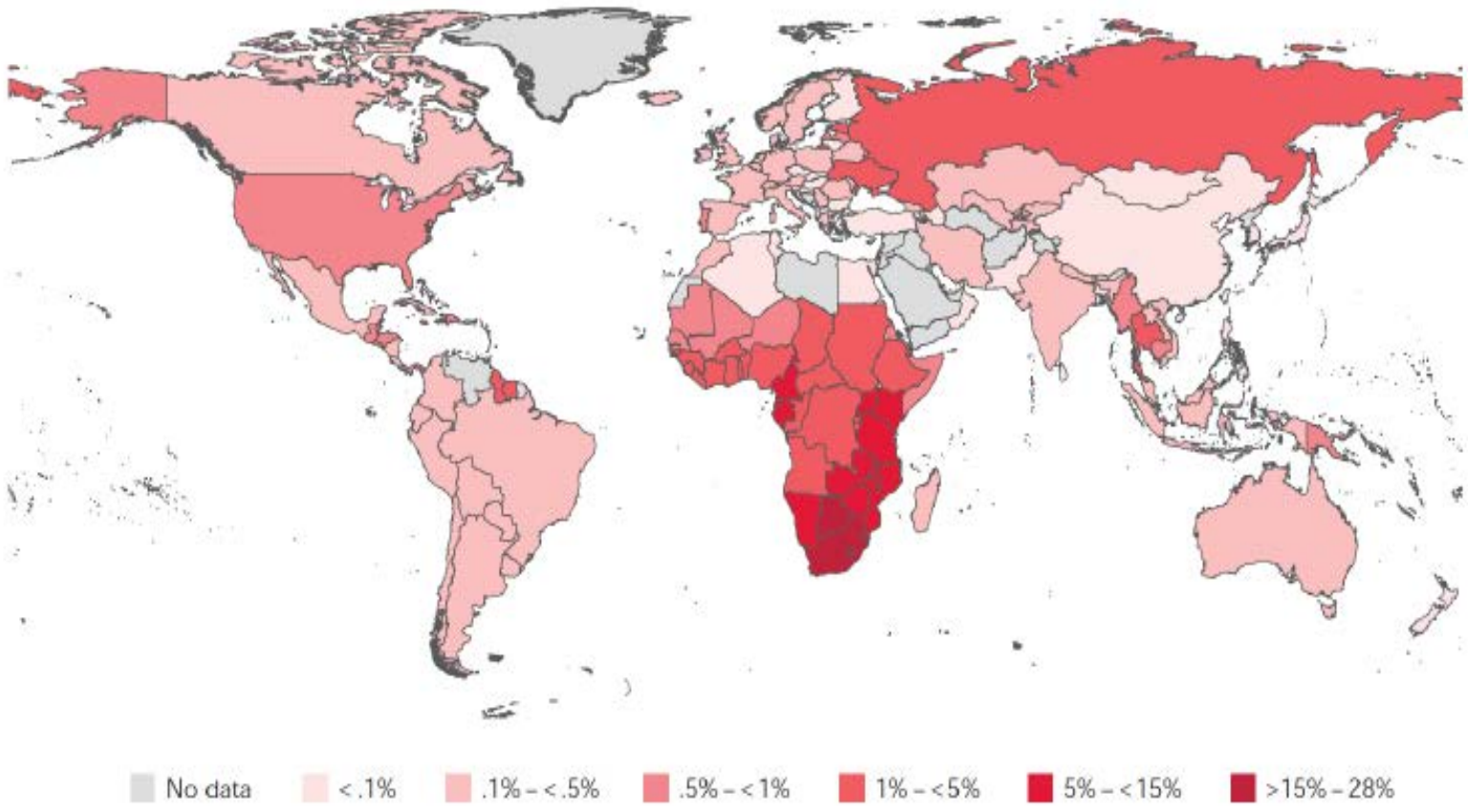
# Outline of the presentation

- Background
- Study of determinants of supply of and demand for Educators in Public Schools
  - Research questions and methodology
  - Results: 4.What impact does health have on the attrition of educators?
  - Needs for ART by educators
  - Results: 5. Do government workplace policies address these factors?
- Conclusions

# Background

# Background: Global prevalence of HIV, 2009

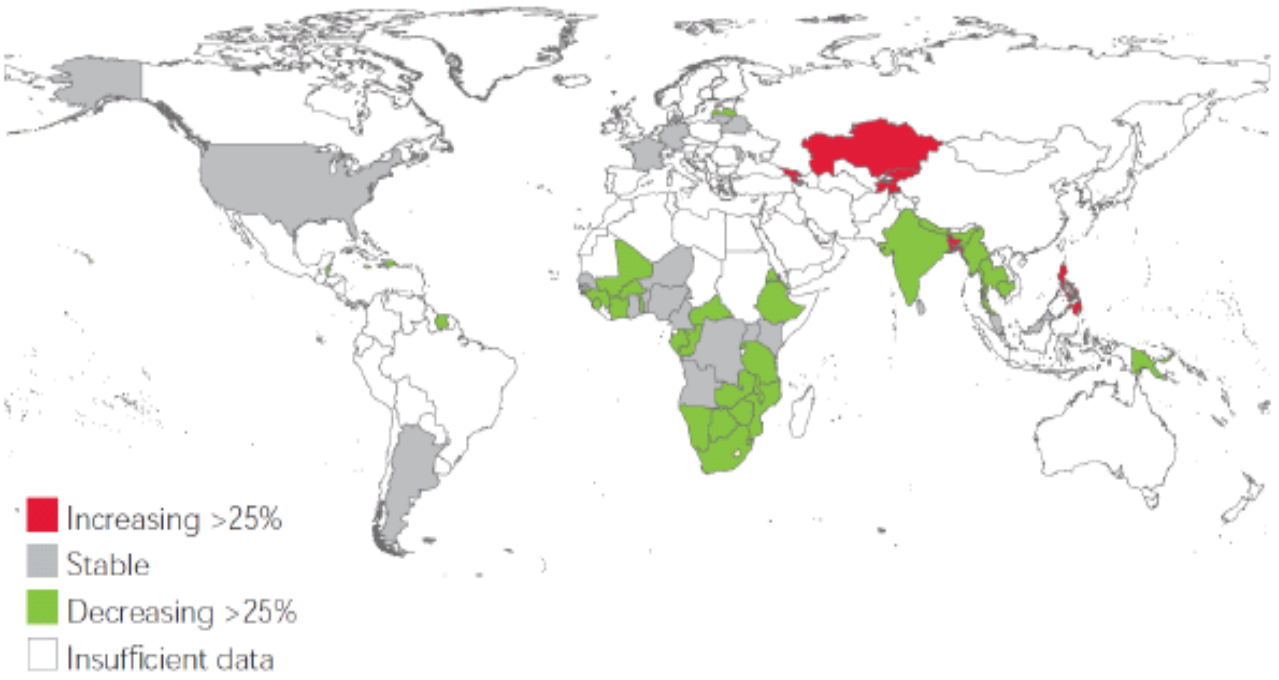



Source: UNAIDS.

World Health Organization

UNAIDS

# Background: Changes in the incidence of HIV infection, 2001 to 2009



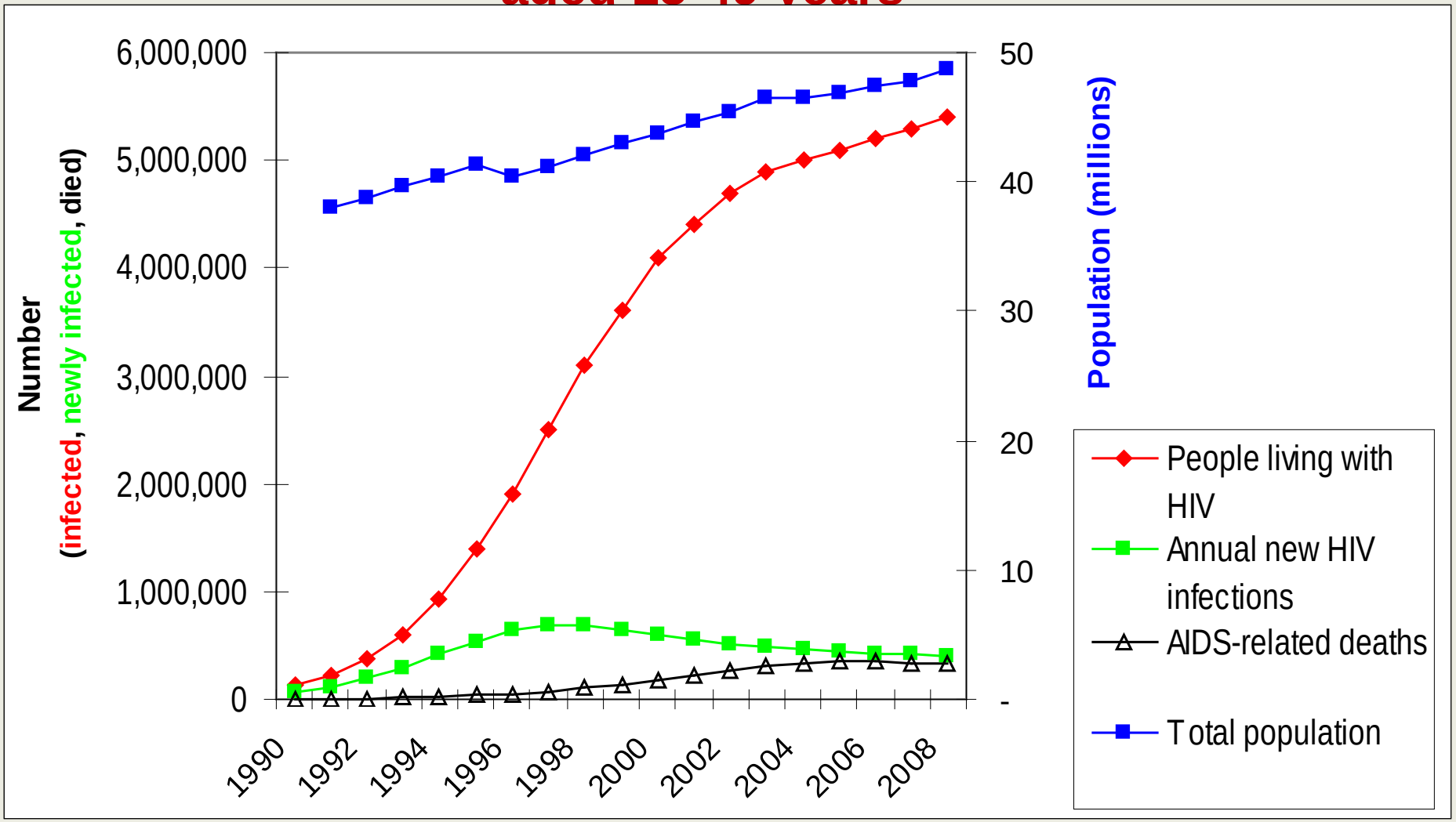

To assess changes in incidence, the estimated national incidence rate was compared between 2009 and 2001. Countries with a change (decrease or increase) in the incidence rate of 25% or more during this period were identified. In most cases, the assessment was based on EPP/Spectrum modelling results (1,2). For selected countries, published analyses of country-level incidence were also used. The EPP/Spectrum criteria for including countries in this analysis were as follows. EPP files were available and trends in EPP were not derived from workbook prevalence estimates; prevalence data were available up to at least 2007; there were at least four time points between 2001 and 2009 for which prevalence data were available for concentrated epidemics and at least three data points in the same period for generalized epidemics; for the majority of epidemic curves for a given country, EPP did not produce an artificial increase in HIV prevalence in recent years due to scarcity of prevalence data points; data were representative of the country; the EPP/Spectrum–derived incidence trend was not in conflict with the trend in case reports of new HIV diagnoses; and the EPP/Spectrum–derived incidence trend was not in conflict with modelled incidence trends derived from age-specific prevalence in national survey results.

*Source:* UNAIDS.

World Health Organization

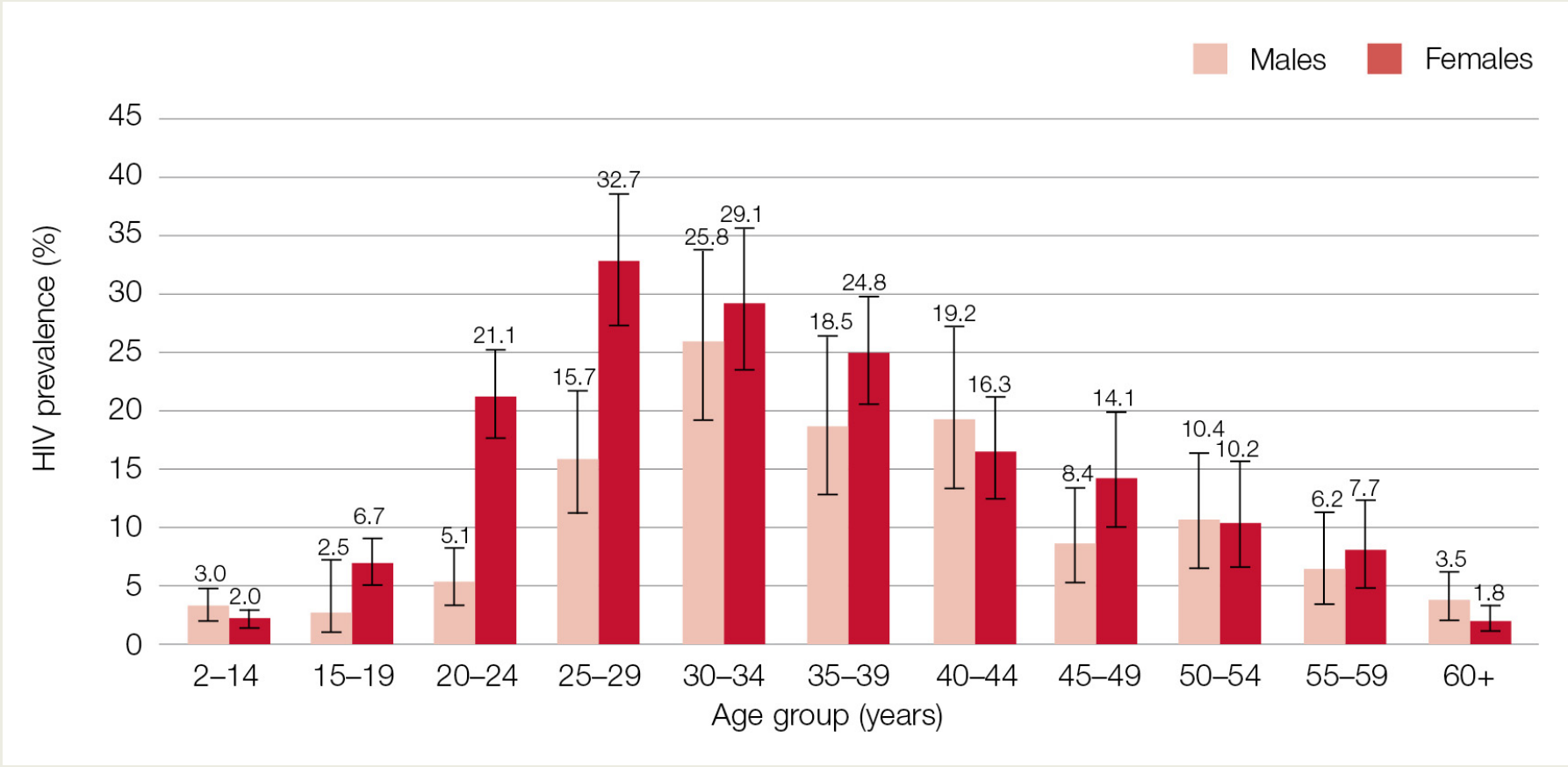
UNAIDS

# Modelled numbers of PLHIV, annual new infections, AIDS-related deaths and total population size in SA among adults aged 15-49 years




**Sources:** Spectrum estimations and mid-year population estimates from www.statssa.gov.za

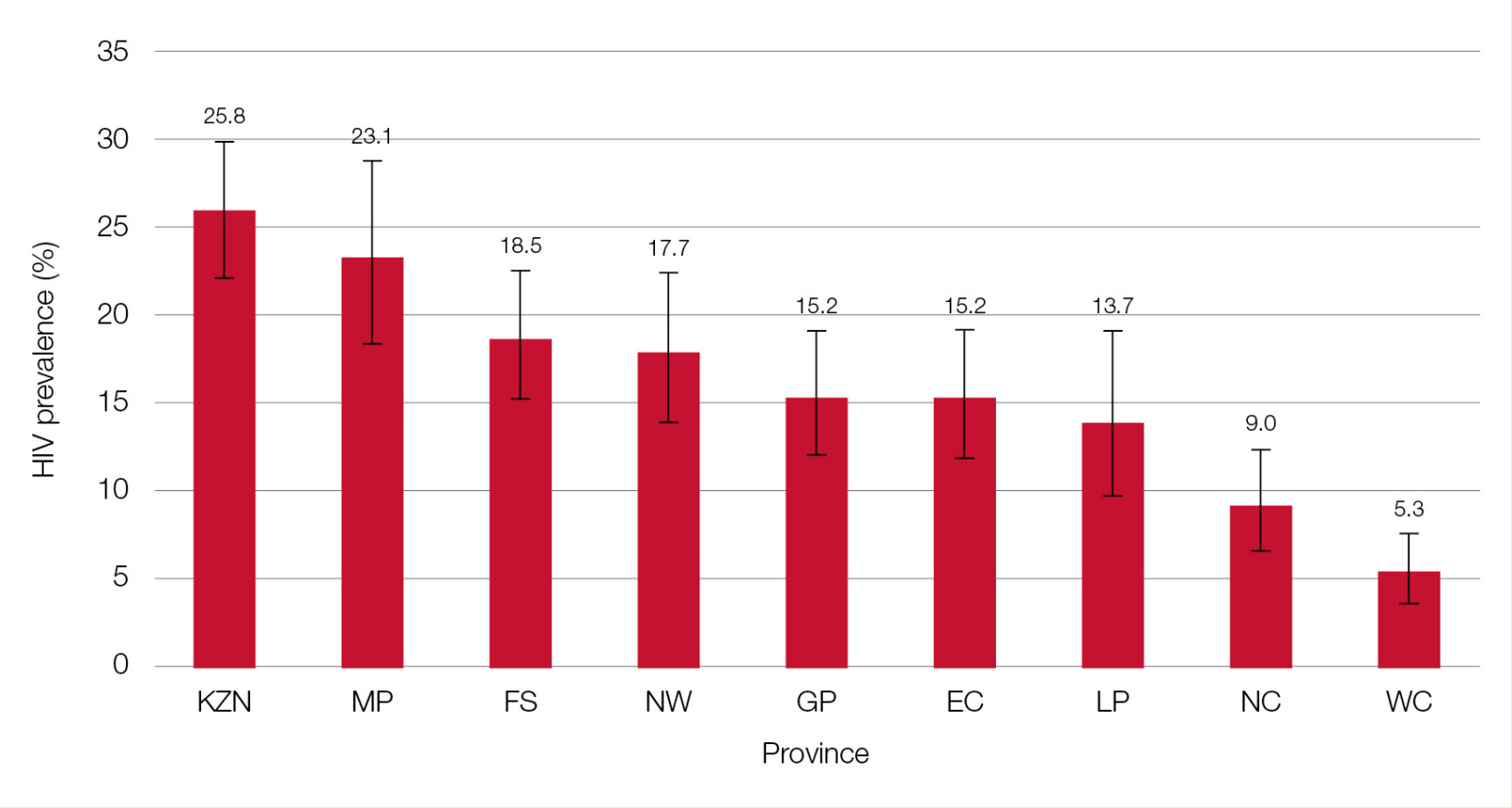
# HIV prevalence, by sex and age, South Africa, 2008



# HIV prevalence and race, South Africa 2008 (2 years and older)

| Race | HIV prevelance (%) |
|---|---|
| African | 13.6 |
| Coloured | 1.7 |
| Indian | 0.3 |
| White | 0.3 |

# HIV prevalence among 15 - 49 year olds by province, South Africa 2008



# HIV prevalence among the most-at-risk populations, South Africa 2008

| Most-at -risk population | n | HIV + % | 95% CI |
|---|---|---|---|
| African females 20-34 | 1395 | 32.7 | 29.7-36.0 |
| African males 25- 49 | 944 | 23.7 | 20.1-27.7 |
| Males 50 years and older | 946 | 6.0 | 4.4-8.1 |
| Men who have sex with men | 86 | 9.9 | 4.6-20.2 |
| People who are high-risk drinkers | 965 | 13.9 | 10.4-18.2 |
| Persons who use drugs for recreational purposes | 490 | 10.8 | 7.2-15.8 |
| People with disabilities | 458 | 14.1 | 9.9-19.6 |

# Study of determinants of supply of and demand for Educators in Public Schools

## "Education for Life Project"

*Funded by*


# Research Questions

1. What drives educators in or out of the system?
2. In what context do they work?
3. What impact does health have on the attrition of educators?
4. Do government workplace policies address these factors?
5. What interventions can be introduced to address the attrition and supply of educators?

# Methodology

- National survey: random selection of 1 766 schools out of 26 713 schools
- 21 358 educators  were present on research day
- 97% agreed to be interviewed; 83% gave a specimen for HIV testing
- Questionnaires: institutional and individual
- HIV test: choice of blood or oral; CD4 count
- Anonymous, bar-coded questionnaire and HIV test results

# Distribution of selected schools

# Results: 3.What impact does health have on the attrition of educators?

FACTORS DETERMINING EDUCATOR SUPPLY AND DEMAND IN SOUTH AFRICAN PUBLIC SCHOOLS

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Report prepared by a research consortium comprising the Human Sciences Research Council and the Medical Research Council of South Africa

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# Results: 4. What impact does HIV and AIDS have on attrition and supply of educators?

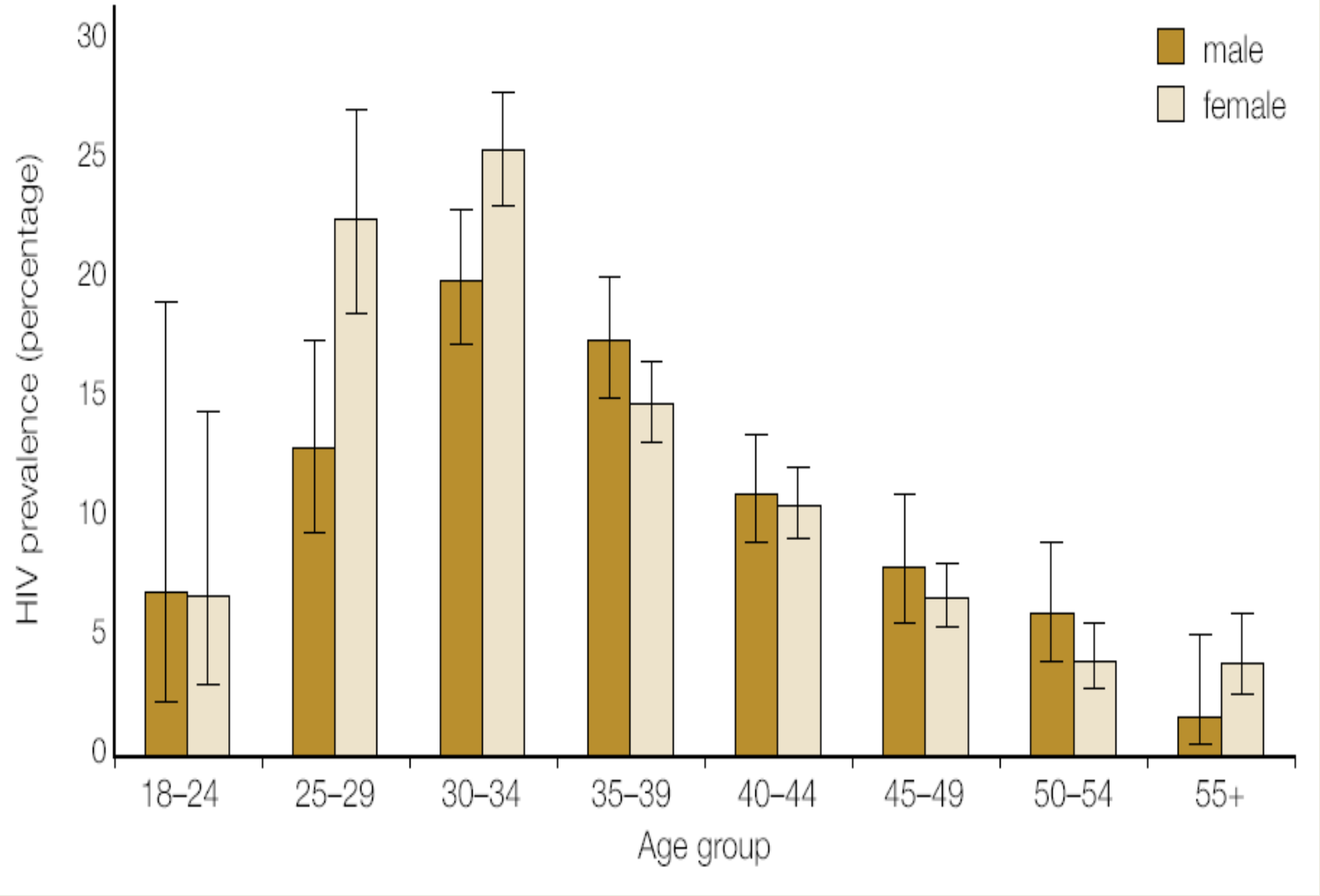
# What impact does HIV and AIDS have on attrition and supply of educators?

| Demographics | n | (%) |
|---|---|---|
| **Sex** | | |
| Male | 6 580 | 32.2 |
| Female | 14 018 | 67.8 |
| **Race** | | |
| African | 14 439 | 77.4 |
| White | 2 778 | 10.1 |
| Coloured | 2 705 | 8.1 |
| Asian | 623 | 4.4 |
| **Age in years** | | |
| 18–24 | 272 | 1.1 |
| 25–34 | 5 135 | 25.4 |
| 35–44 | 8 965 | 44.5 |
| 45–54 | 5 189 | 23.9 |
| 55 and above | 1 040 | 5.0 |

# What impact does HIV and AIDS have on attrition and supply of educators? - HIV prevalence

| CHARACTERISTICS | N | HIV positive (%) | 95% CI |
|---|---|---|---|
| **Total** | **17 088** | **12.7** | **12.0–13.5** |
| | | | |
| **Sex** | | | |
| Men | 5 455 | 12.7 | 11.6–13.9 |
| Women | 11 621 | 12.8 | 12.0–13.6 |
| **Race** | | | |
| African | 12 022 | 16.3 | 15.5–17.1 |
| White | 2 165 | 0.4 | 0.2–0.8 |
| Coloured | 2 309 | 0.7 | 0.4–1.3 |
| Indian | 533 | 1.0 | 0.5–2.1 |
| **Age** | | | |
| <24 | 240 | 6.5 | 3.4–12.0 |
| 25-34 | 4 282 | 21.4 | 19.9–23.0 |
| 35-44 | 7 443 | 12.8 | 11.8–13.8 |
| 45-54 | 4 274 | 5.8 | 5.0–6.7 |
| 55 and above | 842 | 3.1 | 2.1–4.6 |

# What impact does HIV and AIDS have on attrition and supply of educators? -HIV prevalence by age and gender



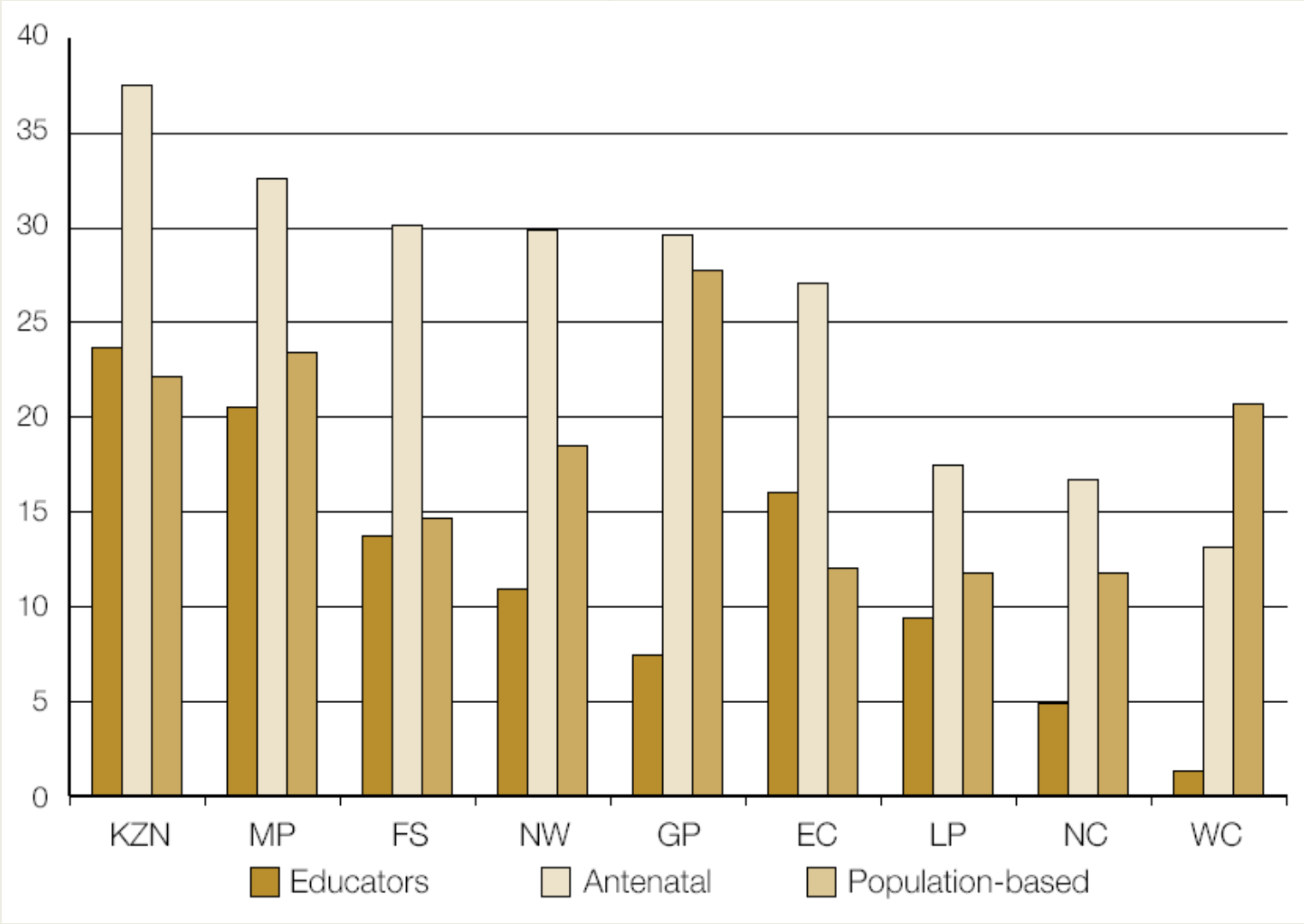
# What impact does HIV and AIDS have on attrition and supply of educators? -HIV prevalence by socio-economic status

| SOCIO-ECONOMIC STATUS | n | HIV POSITIVE (%) | 95% CI |
|---|---|---|---|
| **Level of qualification** | | | |
| First degree and above | 8 551 | 10.0 | 9.1–10.9 |
| Diplomas | 7 094 | 15.9 | 14.8–17.0 |
| Grade 12 and under1 | 420 | 14.0 | 11.9–16.4 |
| **Annual income** | | | |
| Low | 2 915 | 17.5 | 16.0–19.2 |
| Medium | 13 231 | 12.1 | 11.3–12.9 |
| High | 813 | 5.4 | 4.0–7.4 |
| **Household economy** | | | |
| Not enough money | 1 253 | 15.5 | 13.3–18.0 |
| Money for food etc | 8 588 | 14.7 | 13.8–15.6 |
| Have most important things | 5 880 | 10.7 | 9.6–11.9 |
| Some extra money | 1 250 | 3.9 | 2.7–5.6 |

# What impact does HIV and AIDS have on attrition and supply of educators? HIV prevalence by province

| PROVINCE | N | HIV POSITIVE (% | 95% CI |
|---|---|---|---|
| WC | 2 134 | 1.1 | 0.6–2.0 |
| EC | 1 855 | 13.8 | 12.0–15.8 |
| NC | 891 | 4.3 | 2.9–6.5 |
| FS | 1 152 | 12.4 | 10.1–15.0 |
| KZN | 3 627 | 21.8 | 19.8–23.9 |
| NW | 1 437 | 10.4 | 8.7–12.4 |
| GP | 2 772 | 6.4 | 5.4–7.7 |
| MP | 1 315 | 19.1 | 16.2–22.3 |
| LP | 1 905 | 8.6 | 7.3–10.1 |

# Comparison of HIV prevalence among women: educators, antenatal and population survey data, South Africa



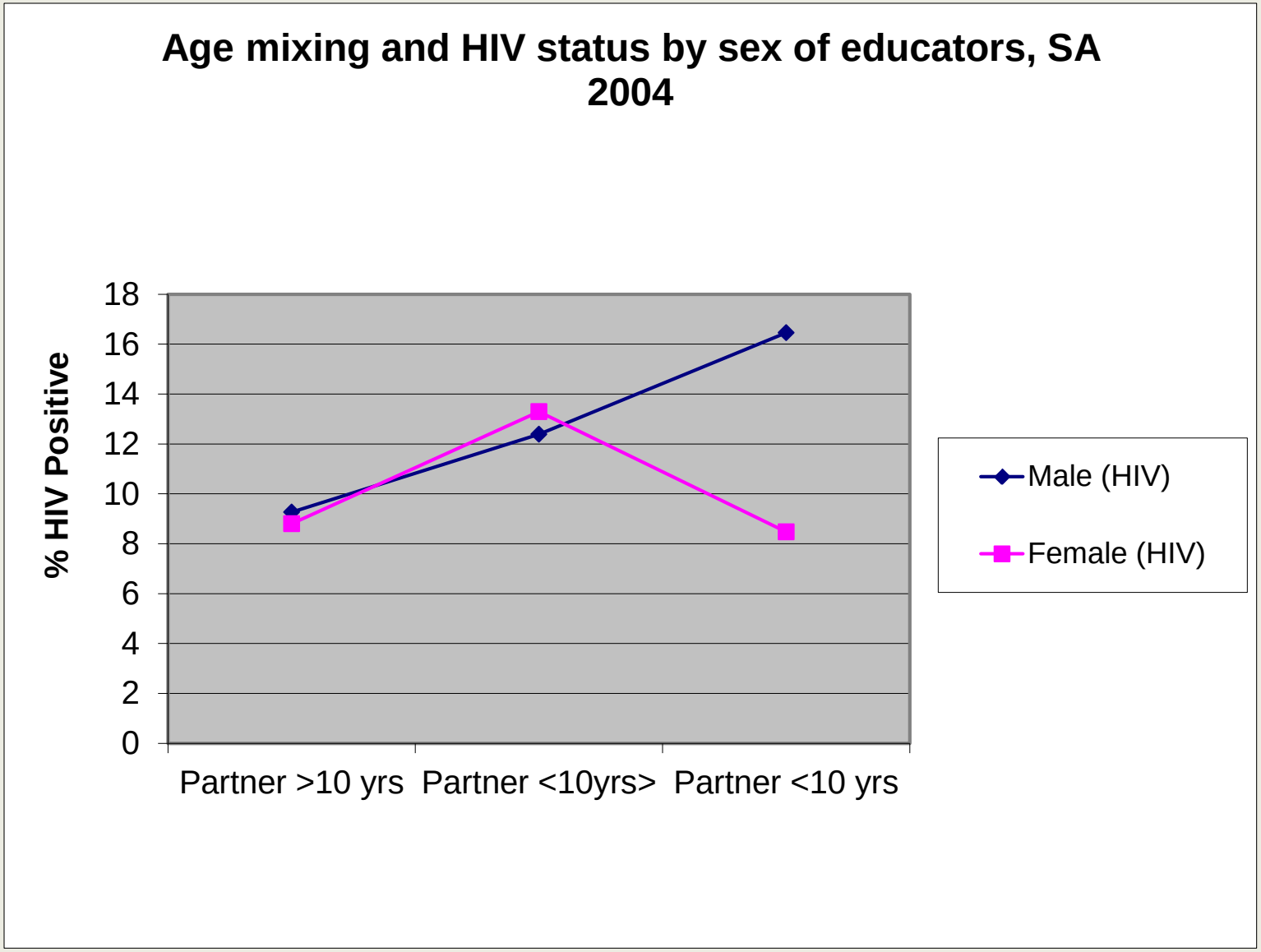
# HIV prevalence by learning area taught, (trained in), South Africa, 2004

| LEARNING AREAS | N | HIV POSITIVE % | 95% CI |
|---|---|---|---|
| Foundation phase | 10552 (3871) | 12.9 (12.7) | 11.6-14.2 (10.7-14.9) |
| Foundation languages | 9922 (22044) | 11.2 (11.5) | 10.0-12.6 (10.5-12.5 |
| Additional languages | 1086 (2215) | 23.6 (24.0) | 19.2-28.7 (20.1-28.4) |
| Arts and culture | 2777 (2349) | 13.2 (10.8) | 9.7-17.6 (6.6-17.0) |
| Economics and management sciences | 4059 (3108) | 14.1 (15.3) | 11.7-16.9 (12.3-18.9) |
| Social sciences | 2255 (8860) | 11.8 (11.8) | 9.3-15.0 (10.0-14.0) |
| Life orientation | 8814 (6167) | 13.4 (11.3) | 11.4-15.7 (8.6-14.7) |
| Mathematics | 6129 (7978) | 12.9 (13.8) | 11.5-14.4 (12.4-15.4) |
| Natural sciences | 5752 (7464) | 12.6 (13.9) | 10.3-15.2 (11.7-16.4) |
| Technology | 5429 (1708) | 7.4 (8.2) | 4.7-11.7 (5.7-11.5) |
| Special | 59 (298) | 0.0 (11.9) | -- (4.1-30.5) |
| Other | 233 (5589) | 13.8 (13.4) | 11.9-16.1 (10.9-16.5) |

# HIV prevalence by type of institution, position in education system and years of teaching experience

| TYPE OF INSTITUTION | N | HIV POSITIVE (%) | 95% CI |
|---|---|---|---|
| Primary school | 9528 | 12.29 | 11.38-13.26 |
| Combined/Intermediate | 1447 | 16.51 | 13.74-19.70 |
| Secondary/high school | 6006 | 12.51 | 11.22-13.93 |
| Position in education system | | | |
| Teacher | 12669 | 14.06 | 13.24-14.92 |
| Senior Teacher | 1846 | 9.63 | 8.08-11.44 |
| Education Specialist | 534 | 9.95 | 7.50-13.09 |
| Deputy Principal/Principal | 1709 | 7.25 | 5.97-8.78 |
| Years of teaching experience | | | |
| 0-4 | 2031 | 21.12 | 19.05-23.34 |
| 5-9 | 2724 | 19.53 | 17.77-21.43 |
| 10-14 | 4484 | 14.76 | 13.45-16.17 |
| 15-19 | 2712 | 8.79 | 7.57-10.17 |
| 20-24 | 2416 | 6.99 | 5.89-8.28 |
| 25-29 | 1494 | 5.44 | 4.13-7.13 |
| 30 + | 1105 | 2.60 | 1.80-3.75 |

# Age mixing and HIV status by sex of educator, South Africa



# Mobility and HIV status

| | HIV POSITIVE | | |
|---|---|---|---|
| **MOBILITY** | **n** | **%** | **95%CI** |
| **In past 12 months been away from home for more than one month** | | | |
| **Yes** | **328** | **17.8** | **15.8-20.0** |
| **No** | **1710** | **12.1** | **11.4-12.9** |
| **Number of nights per week usually stay away from home** | | | |
| **None** | **203** | **8.6** | **7.2-10.4** |
| **1-2 days** | **77** | **16.5** | **12.8-21.0** |
| **3-4 days** | **87** | **16.7** | **13.5-20.5** |
| **5 days** | **122** | **20.5** | **19.9-24.7** |
| **6 and more days** | **107** | **27.6** | **23.0-32.7** |

# HIV-positive educators in South African public schools

## Predictions for prophylaxis and antiretroviral therapy

The HIV/AIDS epidemic in South Africa is severe and it is to be expected that various sectors, including the education sector, will be affected negatively. It is well known that those living with the virus are able to continue being productive for years. However, once illness sets in and the immune system is compromised, absenteeism for both short and long periods may become common and without antiretroviral therapy (ARV) intervention, many will die. In our schools, the illness and death of one educator has serious implications for other educators, the school and learners. Increased workload, loss of skills and experience, overcrowded classes and learner adjustment problems are just some of the consequences that can be expected. While it has long been suspected that HIV prevalence among educators is high, there has been no scientific study to assess this. Responding to the need for empirical evidence, the Education Labour Relations Council (ELRC) commissioned the Human Sciences Research Council-led consortium to conduct this nation-wide research assessing the prevalence of HIV/AIDS, as well as issues such as the health status and attrition of our educators. The results of the research suggest that the high number of our educators living with AIDS is cause for serious concern. This report is part of a broader report and presents predictions for prophylaxis and antiretroviral therapy. The ELRC, as representative of both employer and unions, is best suited to facilitate the means to address the recommendations of this study.

This report can be downloaded at:
www.elrc.org.za
www.hsrcpress.ac.za
www.sahara.org.za

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# HIV-positive educators in South African public schools

## Predictions for prophylaxis and antiretroviral therapy

Thomas Rehle MD, PhD, Olive Shisana ScD,
Deborah Glencross MBBCh and Mark Colvin MBChB, MS

Report funded by and prepared for the Education Labour Relations Council

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# What impact does HIV and AIDS have on attrition and supply of educators? -Number of educators eligible for ART

- HIV-positives eligible for ART under national guidelines is 2.8 %.
- 10 000 of the total 356 749 educators were eligible for immediate antiretroviral therapy in 2005.
- Taking a CD4 cell count of ≤ 350 cells/mm3 as the level for the initiation of ART, would increase the proportion of eligible HIV-positive educators to more than 23 500.

# The impact of antiretroviral treatment on AIDS mortality

## A study focusing on educators in South African public schools

One of the key determinants for the loss of public educators in South Africa is mortality due to AIDS. This report presents an estimate of the number of educators who died from AIDS in 2004, including the projected distribution of AIDS deaths by age group. While antiretroviral treatment cannot avert AIDS deaths entirely, it can delay AIDS-related mortality. This report estimates the extent to which the provision of antiretroviral treatment might reduce AIDS mortality among our educators.

This report can be downloaded at:
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Thomas Rehle MD, PhD and Olive Shisana MA, ScD

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# ART impact on reduction in AIDS deaths by age in 2010

| AGE GROUP | ART1 | ART2 |
|---|---|---|
| 20-24 | 31.8 % | 64.8 % |
| 25-29 | 26.0% | 59.7 % |
| 30-34 | 22.2 % | 56.2 % |
| 35-39 | 18.7 % | 52.9 % |
| 40-44 | 18.1 % | 52.3 % |
| 45-49 | 16.5 % | 50.8 % |
| 50-54 | 16.7% | 50.9 % |
| 55-59 | 13.4% | 48.0 % |
| 60-64 | 7.9 % | 42.7 % |

# Provision of ART is critical

- To reduce morbidity and mortality
- Improve the quality of life of educators
- Prolong educators' stay in the profession and availability to teach

# Results: 5. Do government workplace policies address these factors?

# Workplace Policies in Public Education

A review focusing on HIV/AIDS

Policy governs many aspects of the professional lives of educators. It is also central to their and the sector's response to crises such as the HIV/AIDS epidemic. As such policy can contribute directly to curtailing the attrition of educators, by encouraging and providing protection against threats such as HIV/AIDS, and by creating a positive and supportive working environment. This study examines workplace and HIV/AIDS policies from the Department of Education (DoE) and the HIV/AIDS policies of two trade unions, as part of a broader study looking at the attrition of educators. The policies themselves were found to be well written and if implemented, would create a good environment for educators. A number of successes were noted, particularly in terms of the transformation of education structures. The findings suggest that problems are centered on a lack of policy implementation, resulting from disjunctures between the national office and provincial and district offices, a lack of resources and inadequate planning and preparation for implementation.

This report can be downloaded at:
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Workplace Policies in Public Education A review focusing on HIV/AIDS

FACTORS DETERMINING EDUCATOR SUPPLY AND DEMAND IN SOUTH AFRICAN PUBLIC SCHOOLS


# Workplace Policies in Public Education

A review focusing on HIV/AIDS

Edited by Leickness C. Simbayi DPhil and Donald Skinner PhD

Report funded by and prepared for the Education Labour Relations Council

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# Government HIV policies in educational institutions

- Some of the policies require more detailed implementation plans and greater allocation of resources.
- Most educators are aware of the DoE HIV/AIDS policy (65%) and are prepared to implement the recommendations.
- In 2005 39% of schools have an HIV/AIDS committee.

# Conclusions

- Overall HIV prevalence among educators is significantly lower at 12% than among both male and female adults  in the general population at 18% due to economics factors as they are in employment and are also better educated.
- Nevertheless, HIV/AIDS is a major problem among educators who are mainly
  - Young (first few years of teaching career)
  - African
  - live in KZN and MP
  - male with partners who are 10 years younger than they are and
  - who are very mobile

# Conclusions (contd)

What can be done to ensure supply of educators?

- Restructure remuneration packages, reduce workload and manage job stress.
- Improve resource allocation to poorer schools, especially African schools and provide psychosocial support to educators.
- Set up a comprehensive workplace health care programme – available in some schools and not all.
- Improve on the implementation of current policies and programmes – done in some schools and not all
- Embark on a targeted positive prevention and ART programme for educators

# Conclusions (contd)

- The Prevention, Care And Treatment Access Project (ELRC-PCTA II) is a five year comprehensive HIV and AIDS workplace programme for the education sector in South Africa. The objectives of PCTA II is to:
  - Reduce the number of new HIV infections among educators and their families
  - Mitigate the impact of HIV and AIDS on educators and their families by:
    - expanding access to voluntary counseling and testing (VCT),
    - access to Anti-retroviral therapy (ART),
    - care and support for those living with and affected by HIV and AIDS.

# Conclusions (contd)

- Since a study about HIV/AIDS among educators was last done in 2005, there is a need for a follow-up study

- The HSRC, ELRC, and national departments of Basic Education, and Public Service and Administration are planning for one to be done asap (as well as among health professionals) as part of the Integrated Health Risk Assessment (IHRA).


Thank you for your attention