

Enhancing
CARE
Initiative



**The cost of scaling up
antiretroviral therapy to
health care workers in
hospitals in KwaZulu-Natal**

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A decorative graphic on the left side of the slide consists of several overlapping squares in various shades of light blue and purple. A solid dark blue horizontal bar extends from the right edge of these squares across the top half of the slide. The word "Background" is written in white, sans-serif font on this dark blue bar.

Background

HIV in SA

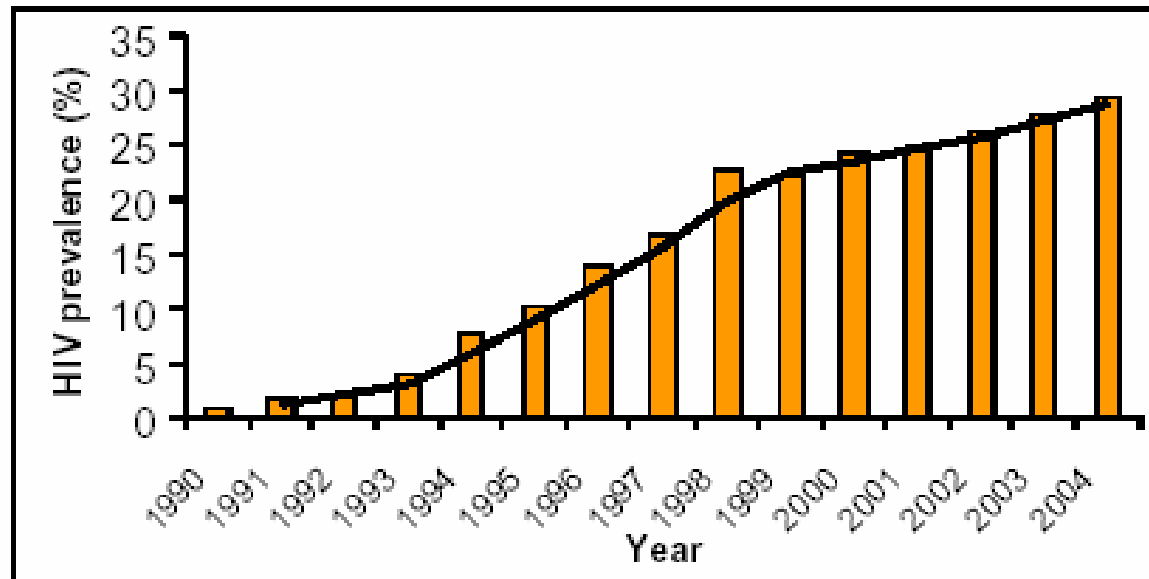


Figure 1: Prevalence of HIV among antenatal care attendees in South Africa, 1990-2004

Source: DOH 2005. National HIV and syphilis antenatal sero-prevalence survey in South Africa 2004.

The situation in KZN is worse..

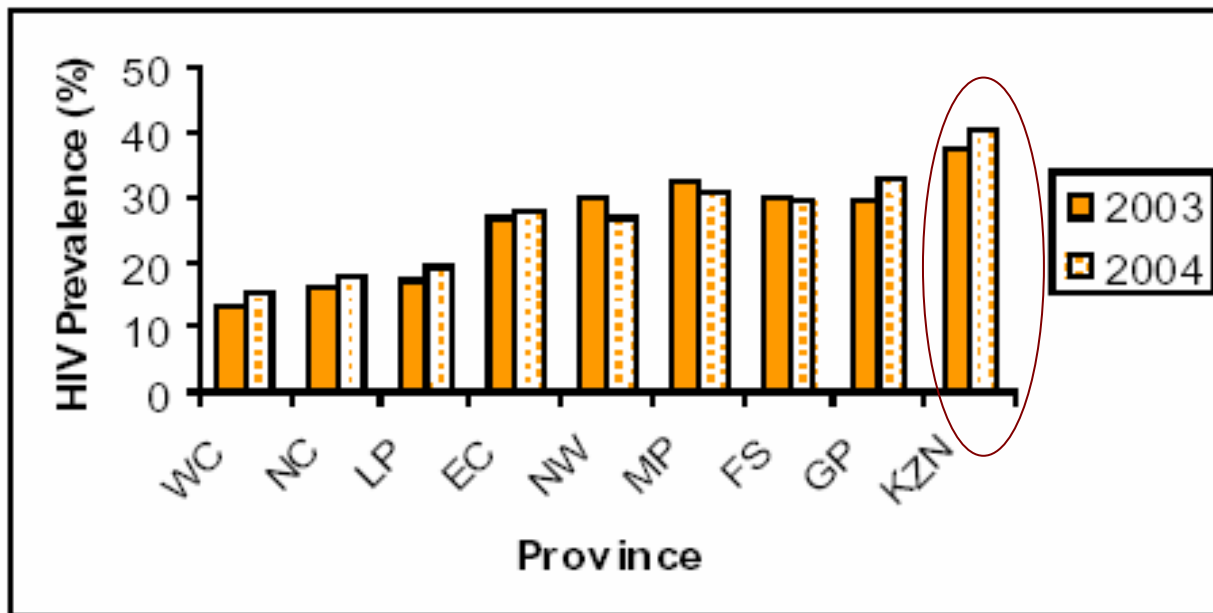
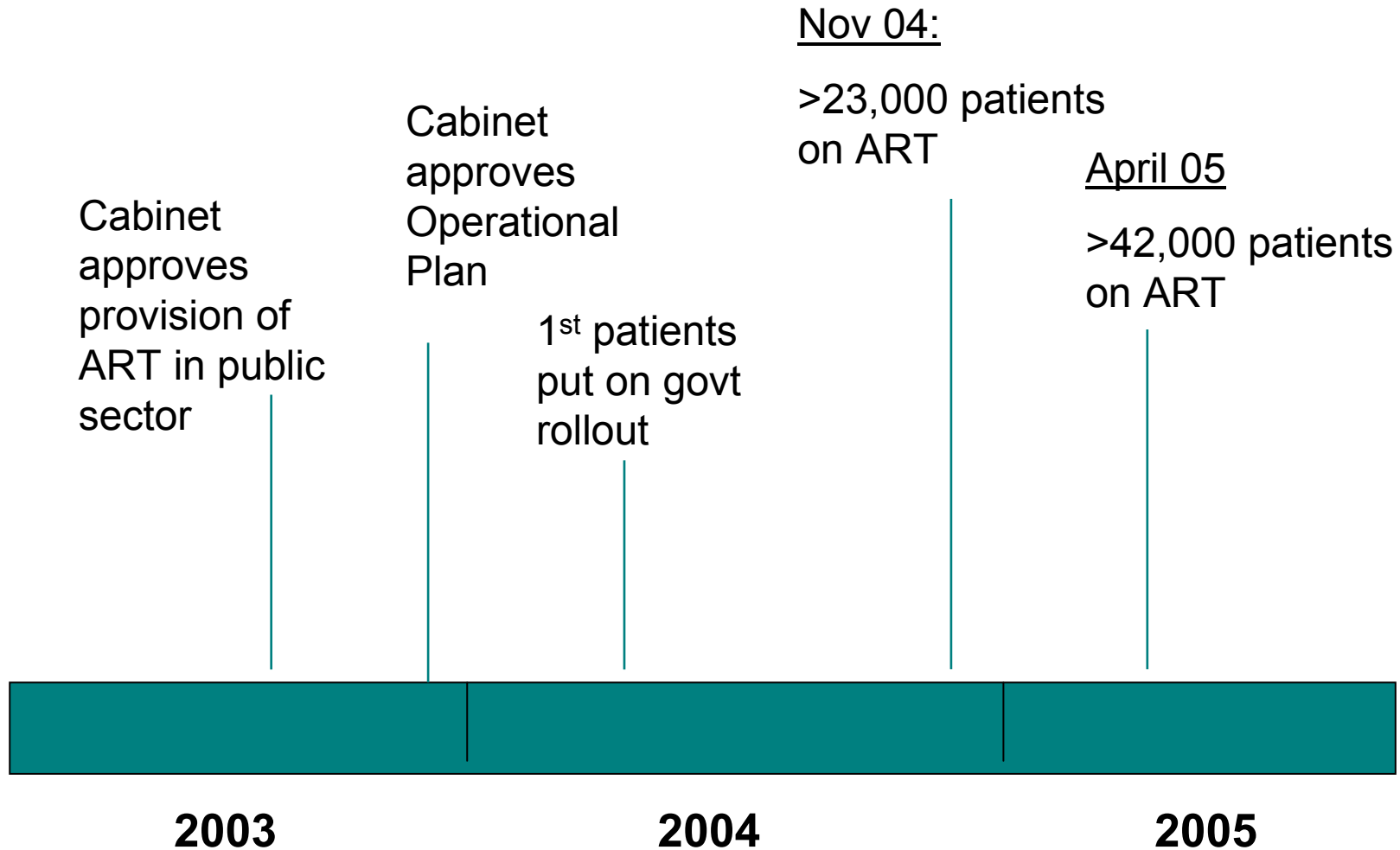


Figure 2. HIV prevalence by province among antenatal clinic attendees, South Africa: 2003 – 2004

Source: DOH 2005. National HIV and syphilis antenatal sero-prevalence survey in South Africa 2004.

The response: ART rollout





Health care staff shortages

- Severe staff shortages in public health service.
- Likely to worsen due to:
 - an increase in demand for health care due to HIV/AIDS;
 - increased demand for health care workers due to ART rollout; and
 - health care worker HIV prevalence estimated at 16%. (Shisana et al, 2005)



One approach to lessening the crisis:

- One strategy = the provision of free ART to HIV-infected health care workers.
 - Several hospitals are implementing this strategy, but many are not.
- This should be used in tandem with other approaches.



Study objective & methods



Research study objectives

- **To estimate the financial and economic cost of scaling up the provision of HAART to health care workers in hospital settings in KwaZulu-Natal.**
- **Why is cost important?**
 - planning purposes, if this strategy is to be adopted as a health policy.
 - Can illustrate the merit of this strategy (in money terms).

Research sites

- McCord Hospital
 - urban
 - govt-subsidised
 - Providing ART since 1999.
 - HAART to health care workers since 2001.
 - HIV counseling, testing, treatment integrated into the staff GP service.



Research sites

- iThemba Clinic, St Mary's Hospital
 - Peri-urban
 - govt-subsidised
 - Providing HAART since 2003.
 - Full-time hospital staff are given preferential access
 - Staff clinic and HIV clinic operate out of the same premises.



At both hospitals VCT, counseling and treatment is done on a one-to-one basis with the staff doctor



Methods

- Financial and economic costs were estimated.
- Perspective = individual hospital
- Staff doctors interviewed, protocols reviewed to identify:
 - clinician time & resources used to provide ART to health care workers;
 - frequency of consultations and lab. testing.



Methods

- Costs available to provincial hospitals were used.
- Excel model was used to estimate the cost of each component activity.
- The model is unique:
 - estimates how resource requirements (and thus cost) will change as patient numbers increase;
 - focuses on human resources cost of a programme.

The model

Staff	Yearly patient usage	Operational days per year	Operational hours per day	Functions per hour	Max no. of patients that can be seen per year	Current number of staff	Current utilisation of capacity
Doctor	15	220	6	3	264	1.5	13%
Registered nurse	15	220	6	3	264	2	9%
community outreach director	1	220	6	50	66000	2	0%

- The model is unique:

- estimates how resource requirements (and thus cost) will change as patient numbers increase;
- focuses on human resources cost of a programme.



Methods (2)

- Cost estimates include:
 - ARV drug cost
 - Laboratory tests
 - consumables
 - Human resources cost
- No capital spending in either programme



Results




Total Financial cost per health care worker (hcw) per year

Patient numbers	McCord	St Mary's
Current no. patients	R8,762	R5,697
16% prevalence	R7,088	R5,697
20% prevalence	R6,858	R5,697



Total Economic cost per hcw per year

Patient numbers	McCord	St Mary's
Current no. patients	R8,893	R6,778
16% prevalence	R7,219	R6,778
20% prevalence	R7,114	R6,778



Breakdown of economic cost: at current patient numbers

	McCord	St Mary's
Labour	31%	14%
Equipment	1%	2%
Drugs	42%	48%
Tests	21%	27%
Medical consumables	5%	9%



The cost of not providing tx?

- Cost of no-HAART treatment and absenteeism not estimated in this study.
- Other studies show:
 - average cost of inpatient care & sick leave for 4 hospital staff members who died of AIDS = R26,500.
 - The loss of a nurse to HIV/AIDS cost Johannesburg hospitals the equivalent of approximately 10 months of nursing time (excluding treatment cost).



The cost of not providing tx? (cont.)

- Data from Anglo American's HIV/AIDS tx programme shows that 70% of the cost of ART is covered by savings in absenteeism.



Conclusions

- The annual cost of treating hospital staff members with HAART appears to be modest.
- These costs likely to be offset against savings to the hospital.
- This strategy appears affordable and could lessen human resources shortages in the future.
- In the short term it could have a profound impact on absenteeism



Acknowledgements

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- Dr Kofi Koranteng (iThemba Clinic)



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