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# UNPACKING ISSUES OF ADHERENCE

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**HSRC**  
Human Sciences  
Research Council

AIOS,

# BACKGROUND

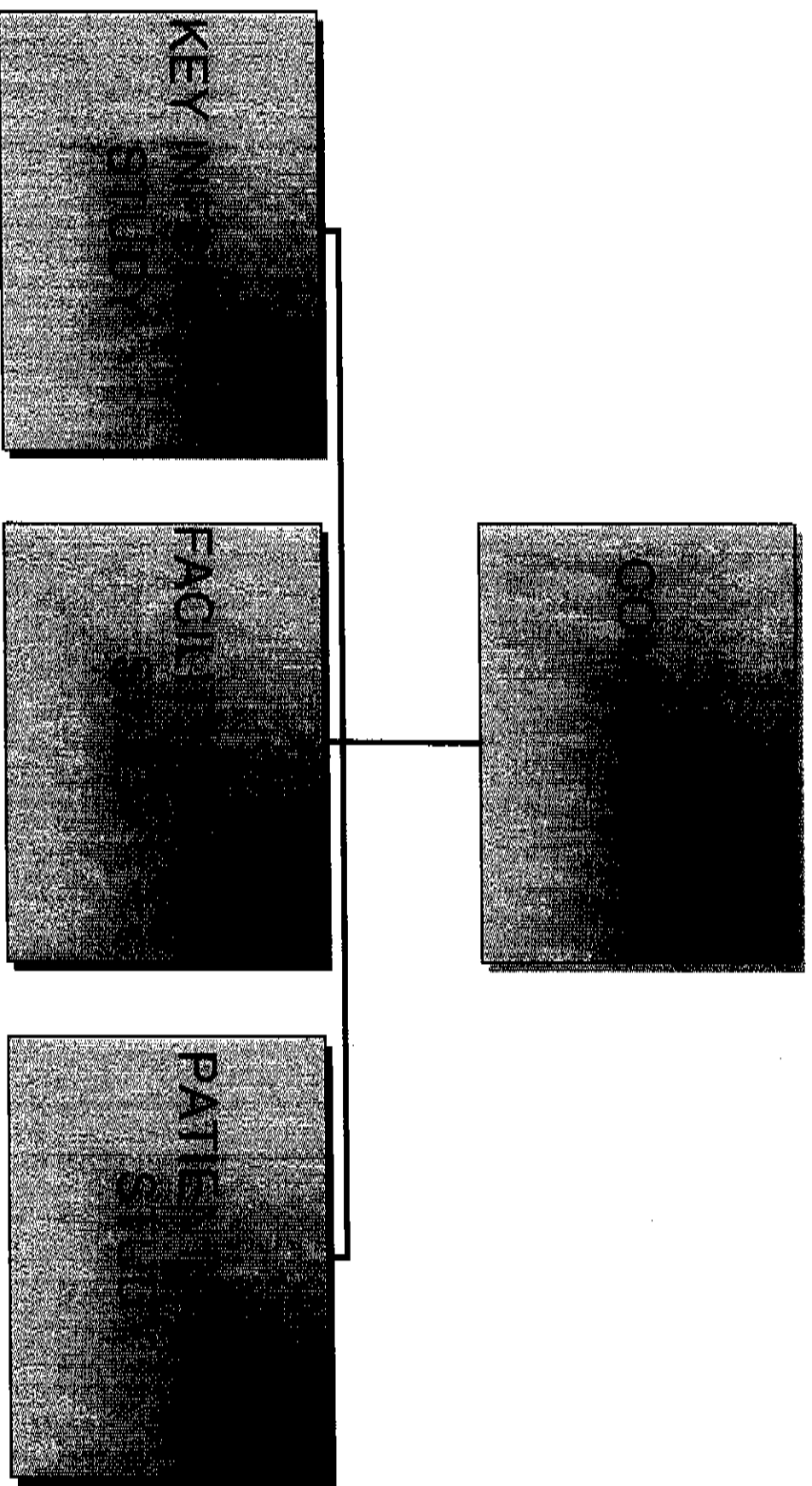
- SA's Strategic Plan for HIV and AIDS care, management and treatment is **necessarily ambitious**.
- 5,4 million PLWHA in SA (HST & MRC, 2008)
  - 2004: 19 500 on ARV's initiated in the public health sector.
  - 2009 estimates by DoH: 1.4 million people will need to be on ARV's.

**Major study:**  
**"Study on comprehensive ARV delivery models: Implications for scaling Up ART in SA"**

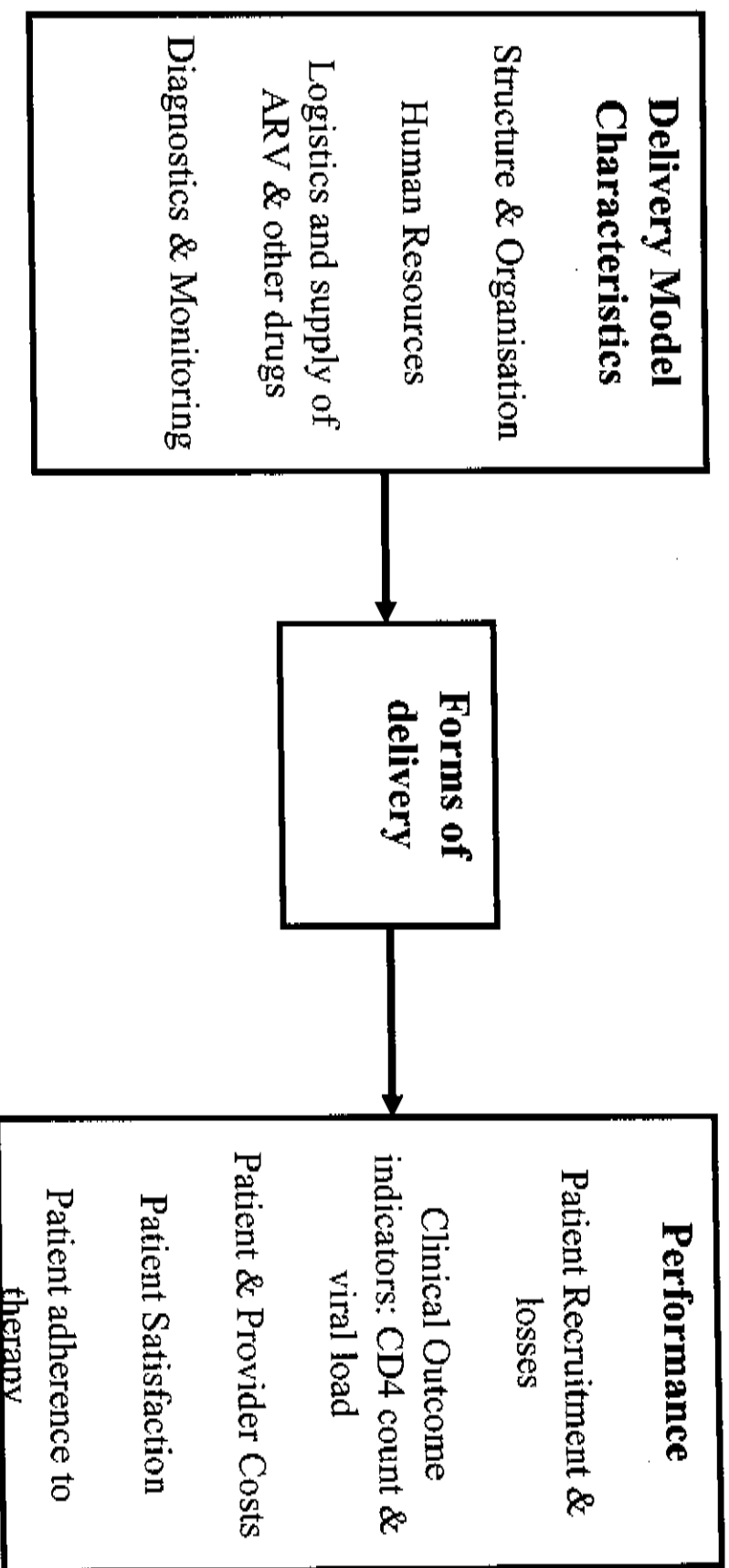
# SETTING, DESIGN & METHODOLOGY

- Multiple case study design
- 4 (out of 9) Provinces
- 2 districts/province - 1 urban, 1 rural
- Qualitative and Quantitative methods
- Sample description:
  - Key informants: 22
  - Health facility evaluations: 20
  - Exit interviews - patient questionnaires: 2115

# Major study



# ANALYTICAL FRAMEWORK



# ISSUE OF ADHERENCE

In drawing lessons for scaling-up ARV in SA:

*“Policies and programmes that aim to provide increased or universal access to treatment face a key challenge...*

*... in order to succeed, these programmes need to achieve an exceptionally high level of adherence for an indefinite period of time!”* (WHO, 2006)  
*... at least 95%.*

*If adherence means, taking the correct dose of drugs, at the correct time and in the correct way (e.g. with the right type of food or fluid, before or after a meal)...*

# Unpacking adherence

Poor adherence



WHY?

(Individual level)

- Missing 1 / 2 doses occasionally
- Taking smaller doses to reduce side-effects
- Forgetting, depression, out of routine etc
- Increased access cost



- Increased levels of HIV
- Increased risk of severe illness and hospitalization
- Resistance to AV's

But adherence to ARV's include other reasons which include systemic considerations of the health care environment as well broader societal factors... for long term success.

# Operationalizing adherence in research

## 1. Direct (medication) factors

- 4 day dosing recall
- Possible reasons for missing doses

## 2. Indirect factors

- Patient perspective
  - Socioeconomic profiles, satisfaction, cost, HIV/AIDS education etc.
- Provider perspective
  - Resource availability, HR capacity etc.



# RESULTS

## Direct measurement of adherence

### 1. Medication adherence:

*(Aspen Lamivudine/3TC; Stavudine/Stavir; Stocrin/Efavirenz; Nevirapine)*

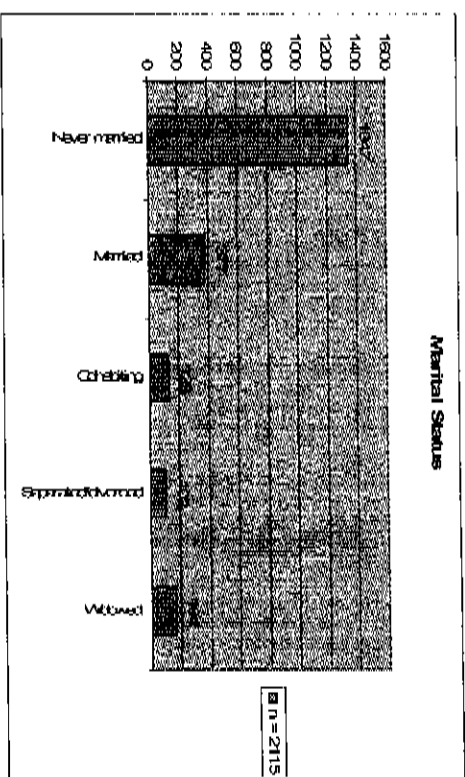
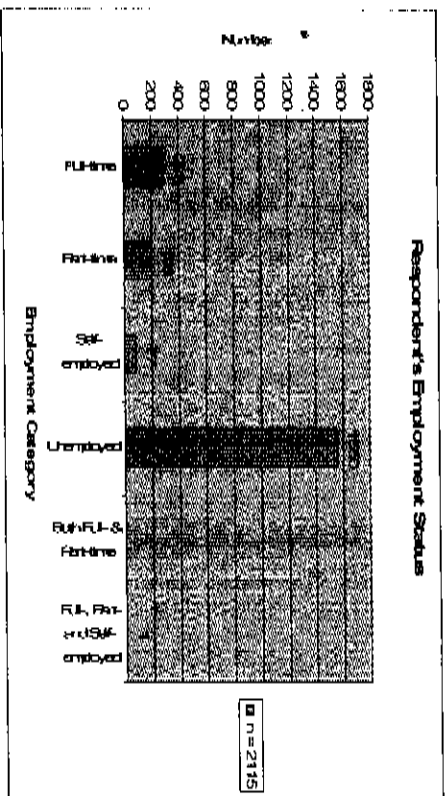
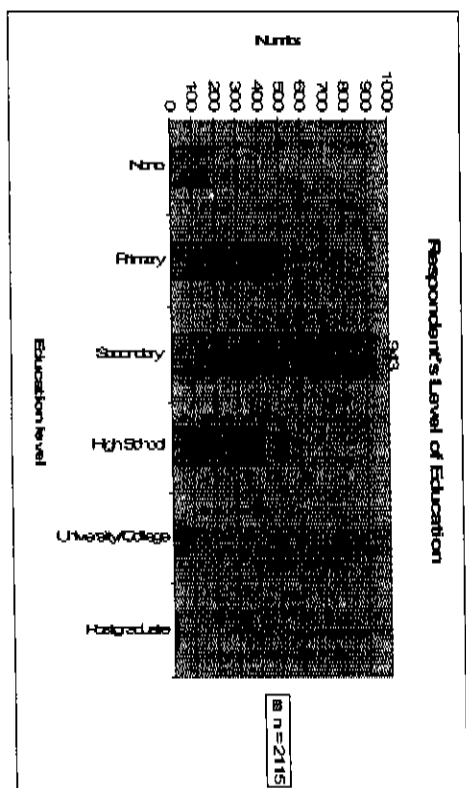
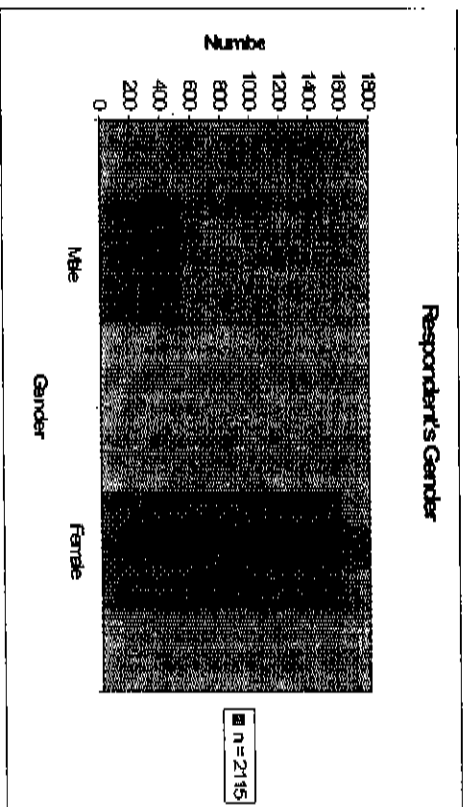
Mean of **97.5 %** adherence rate on the self-reported 4 day dose recall.

(n = 1147)

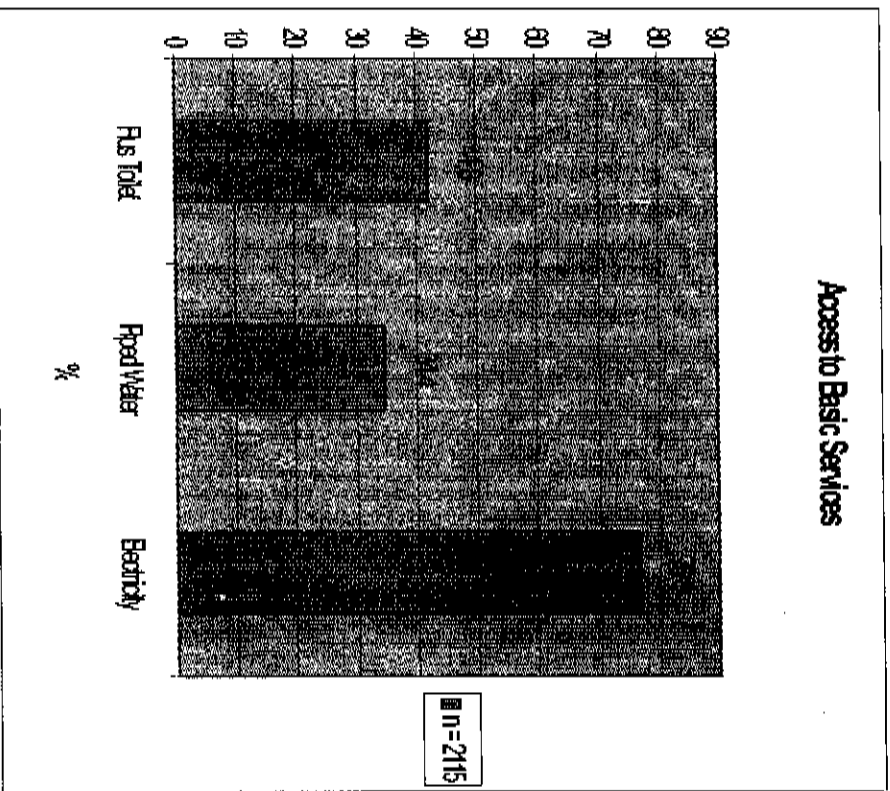
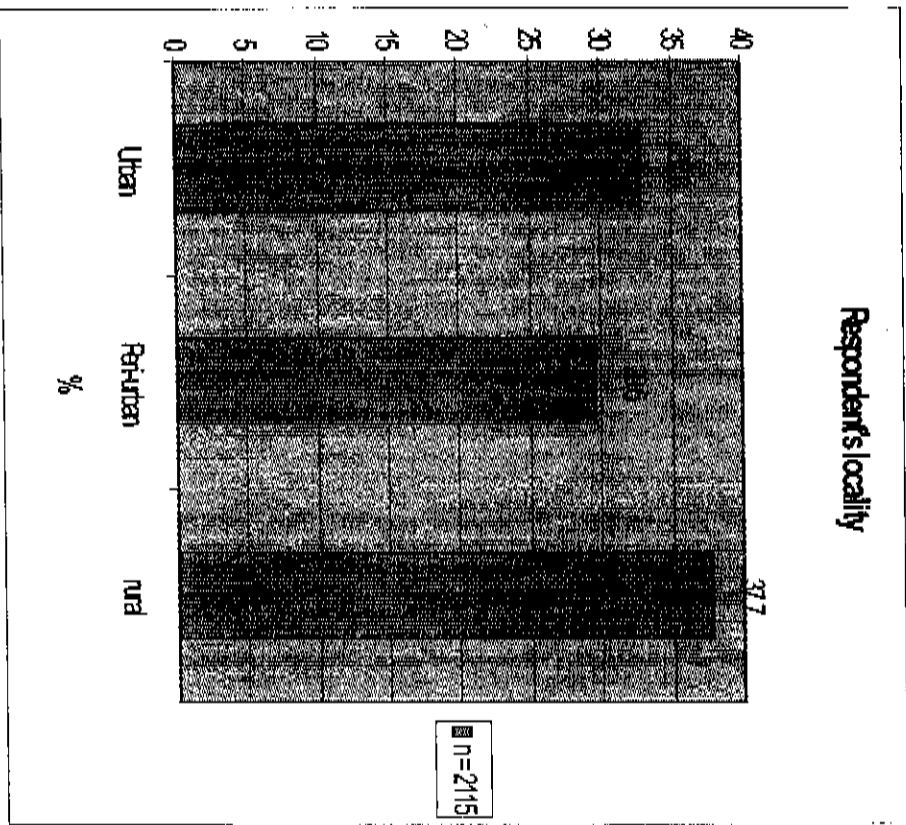
# Reported reasons for missing a dose

Reasons	Never	Rarely	Sometime	Often
a) Was away from home?	94.20	2.50	3.00	0.20
b) Was busy with other things?	95.60	2.00	2.40	0.00
c) Simply forgot?	96.40	2.00	1.60	0.00
d) Had too many pills to take?	99.50	0.30	0.10	0.00
e) Wanted to avoid side effects?	99.50	0.20	0.30	0.00
f) Did not want others to notice you taking medication?	98.90	0.70	0.30	0.10
g) Had a change in daily routine?	98.00	1.10	0.90	0.10
h) Felt like the drug was toxic/harmful?	99.10	0.30	0.50	0.00
i) Fell asleep/slept through dose time?	97.40	1.00	1.40	0.10
j) Felt sick or ill?	98.40	0.70	0.90	0.00
k) Felt depressed/overwhelmed?	98.30	0.70	0.90	0.10
l) Had problem taking pills at specified times (with meals, on empty stomach, etc.)?	97.80	0.90	1.20	0.10
m) Ran out of pills?	98.90	0.80	0.30	0.00
n) Felt good?	99.20	0.20	0.30	0.20
o) Had to take other medications	99.50	0.30	0.20	0.00

# Indirect factors: Patient perspective



# Indirect factors: Patient perspective



## Indirect factors: Patient perspective

### Perceived quality of care

- **Waiting time as reported by patients:**
  - **Mean: 2.07hours, with a maximum time of 10.33hrs**
  - **83.2% of respondents satisfied with staff**
  - **However, majority wanted lengthier consultation time**

## Indirect factors: Patient perspective

PARTICIPATION COSTS		
Items	Before ARVs	After ARVs
Medical Fees	R 17.46	R 48.69
Food	R 14.08	R 43.42
Transport	R 27.38	R 101.50
Companion	R 7.20	R 17.74
Other costs (social etc.)	R 5.49	R 17.95
<b>TOTAL COST</b>	<b>R 71.61</b>	<b>R 229.30</b>

- Average distance travelled = 19.45km
- Mode of transport:
  - 75.4% used taxi;
  - 10.9% by foot;
  - 7.7% used bus

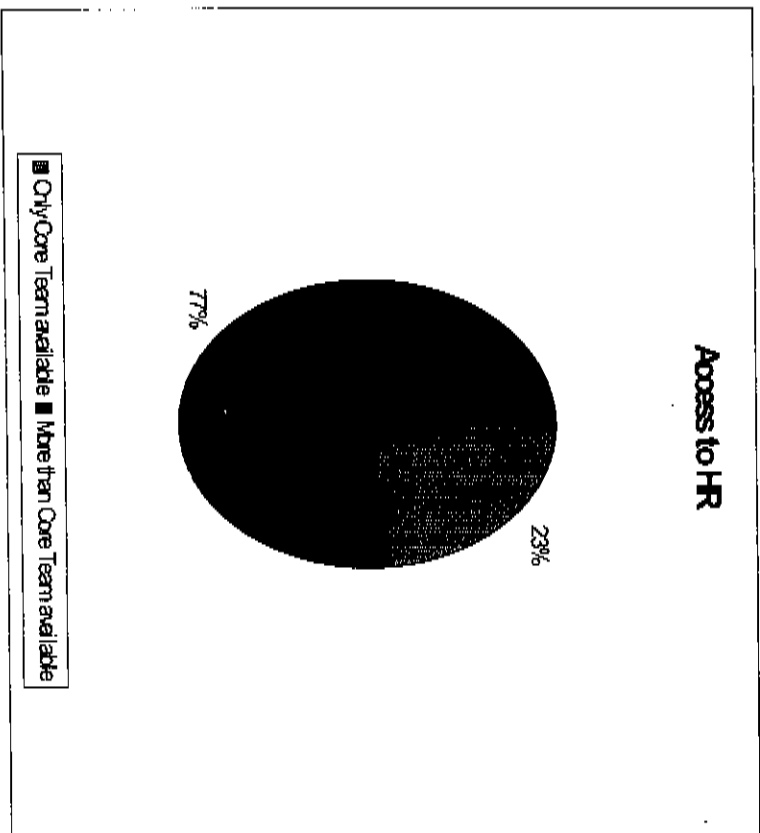
## Indirect factors: Patient perspective

### Counselling & support

- 93.9% received support after testing +ve
  - Social support = minimal (16.0%)
  - Counselling = high (82.7%)
  - Other (nutritional) = 1.3%

# Provider perspective

## Human resource capacity

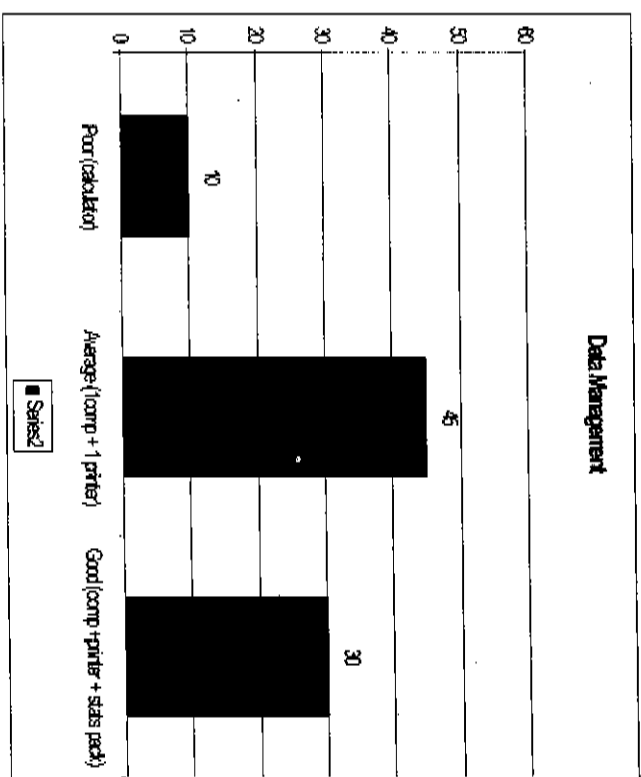
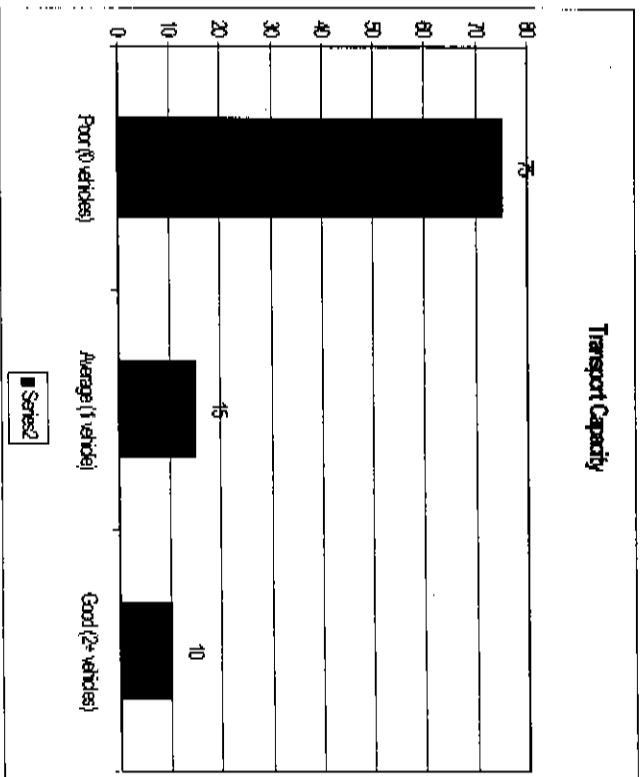


FACILITY	DATE ARR STARTED	Patients on ART
KZN2001	20-11-2006	556
KZN002	101-05-2005	5327
KZN003	01-10-2004	858
GP001	01-04-2004	5154
GP002	05-05-2005	2309
GP003	14-09-2006	310
GP004	10-10-2005	2000
GP005	05-03-2005	900
GP006	06-06-2004	7148
GP007	03-03-2006	679
EC001	05.10.2007	44
EC002	03-03-2006	359
EC004	04-04-2004	5000



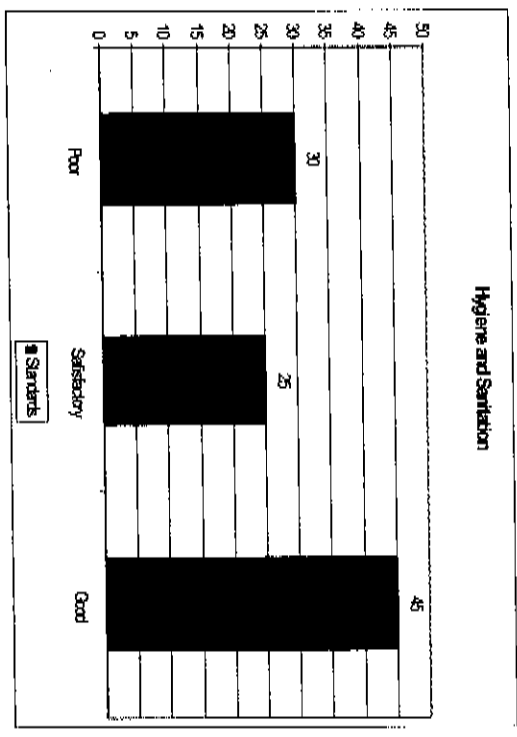
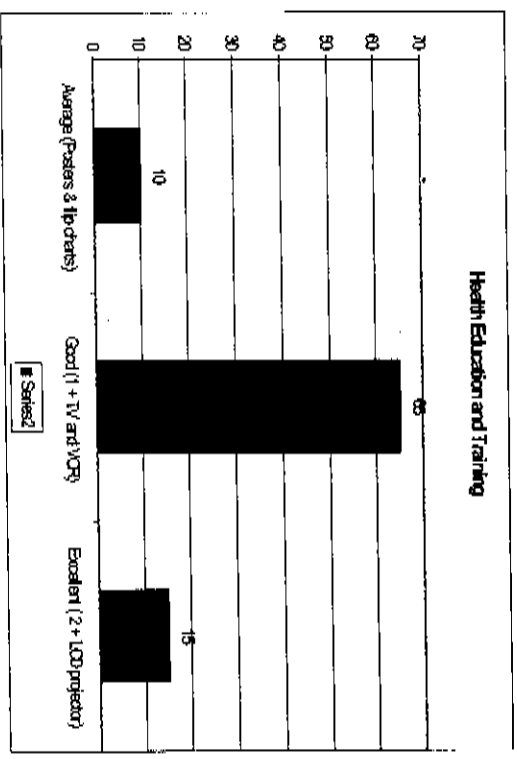
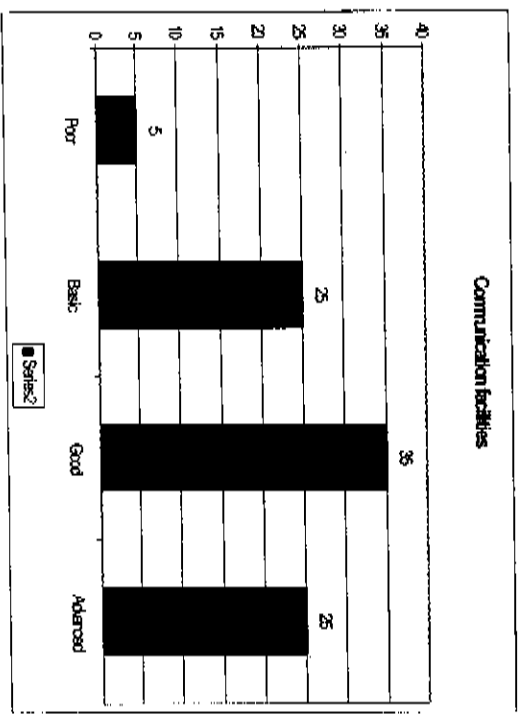
# Provider perspective

## Physical resources



# Provider perspective

## Physical resources



# Discussion

- Study revealed high adherence rates:
  - majority of respondents are new on the programme (85%: on programme - average 2yrs)
    - Does not confer with evidence = poor socio-econ status correlates with poor adherence rates
- Challenges still remain:
  - Chronic care model (Wagner, 1998) = illustrates need for coherence between Health Care system (design, protocols, management etc) + Community Care + Public policies
  - Factors influencing Adherence have to be built into M&E from programme conceptualisation and design

# LESSONS

Can the public health system absorb the target set to scale-up access to Anti-Retroviral Therapy?

- SA's system of accreditation of ARV sites - follow-up process need strengthening
- Access to more sites/decentralization to primary care facilities
- Need for equitable Human resource distribution, recruitment and retention policies
- Ensure Drug procurement, effectiveness and sustainability for future supply
- Tackle Socio-cultural and economic factors impacting on adherence