

# EXPANSION OF LUTHANDO PSYCHIATRIC HIV CLINIC: CO-EPIDEMICS OF SMI AND HIV

Is there an advantage over the value of standard care?

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A view from a fighter on the front lines of the ever changing HIV  
pandemic



# Introduction

- Prevalence of HIV amongst the mentally ill in USA is 13-76 times that of the general population Carey et al, Clin Psychol rev 1997
- Prevalence in Southern Africa amongst mentally ill patients: 0-59% Joska et al, S A med J 2008
- In SA prevalence amongst mentally ill patients largely matches general population Collins et al, AIDS Care 2009
- Nonetheless mental illness increases vulnerability to HIV infection Chandra et al, Indian J Med Res 2005



# SMI + HIV+ = 2X Stigmatized population

- Many HIV patients with multiple diagnoses receive less optimal care:
  - d.t co-occurring SA or MI which are barriers to medical care
  - Stigma and perceived public health risk
  - Suspected poor adherence to treatment Treisman et al JAMA 2001
  - Poor communication between clinicians
  - No case managers, lack of integrated care
  - Toxic effects of ART
  - Drug-drug interactions Soto et al AIDS Care 2004, Owe-Larsson et al African J Psychiatry 2009,



# Access to Medical services for mentally ill patients

- Patients with serious mental illness (SMI) are a medically underserved population. Nasrallah et al, Schizophrenia research 2006
- HIV infected individuals with co-occurring SMI and IDU are more likely to utilize HIV related medical inpatient services than individuals with no or only one co-morbidity. Himelhoch et al Gen Hosp Psychiatry 2007
- Patients with SMI and IDU were 48% less likely to receive HAART, however patients with SMI only were as likely to receive HAART as those without SMI.



## Integration of services: Improved quality of life outcomes

- Parallel run vertical programmes: no integration between services.
- May lead to prescription of incompatible drug regimens, mismanagement of adverse effects and inadequate adherence support. Howard et al CID 2010
- ? Integrate mental health into HIV services or HIV services into Mental Health services.
- Strengthen existing relationships between mental health and HIV services. Collins et al AIDS 2006
- Integrate mental health policies across all disease categories and care settings to maximize effectiveness of the small number of mental health professionals in low income countries. Prince et al Lancet 2007

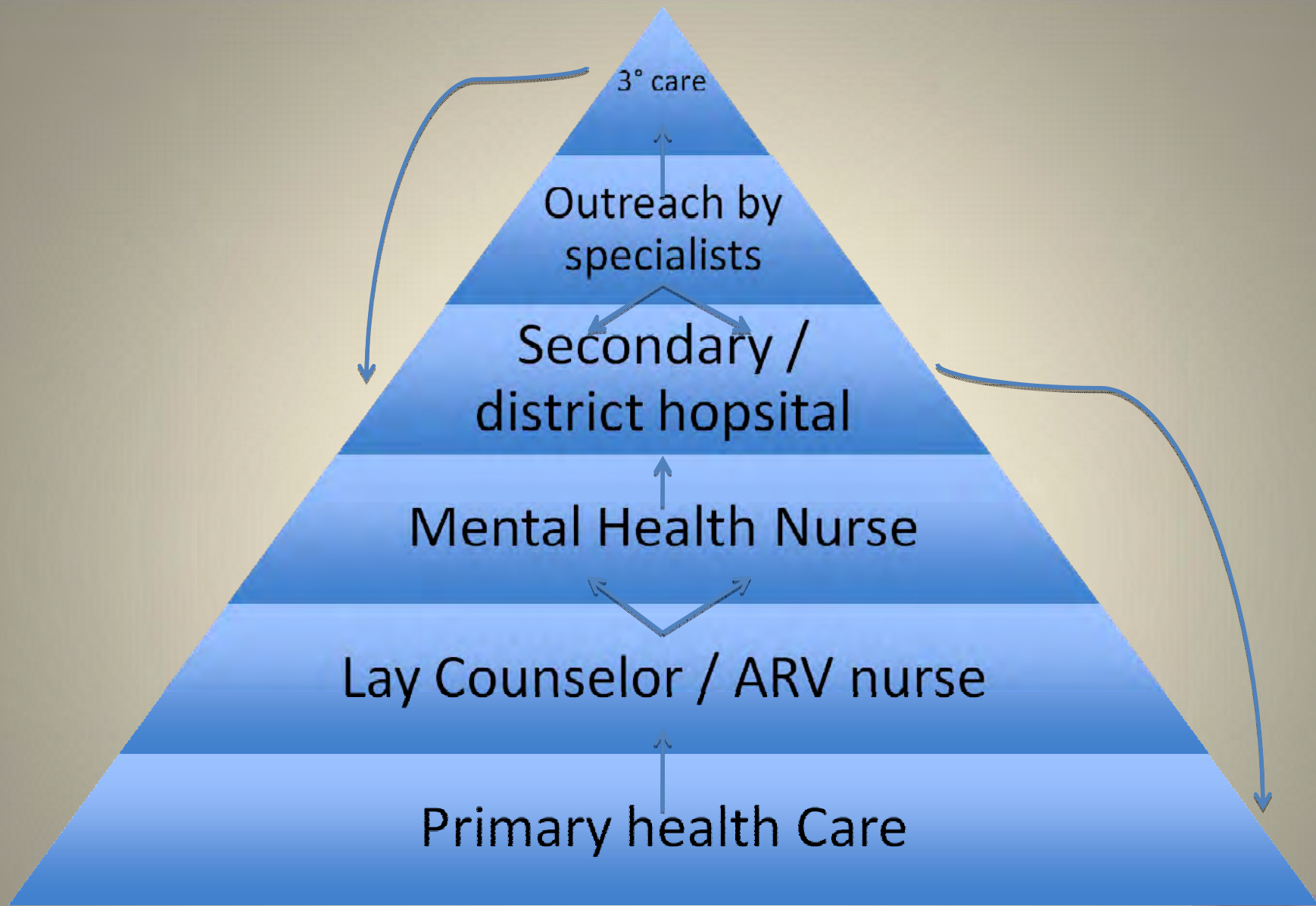


# Integration Programmes

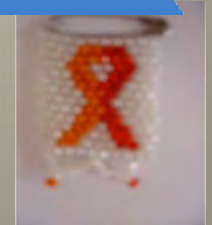
- Key aspects:
  - services convenient to pt
  - effective substance use Tx
  - Pharmaco-therapeutic expertise
  - monitoring of drug-drug interactions and side effects
  - cross training of generalist and specialist care
  - infrastructure for service delivery
  - expanding street level outreach
  - training community health workers to deliver cost effective service delivery

Cornos et al World Psychiatry 2005

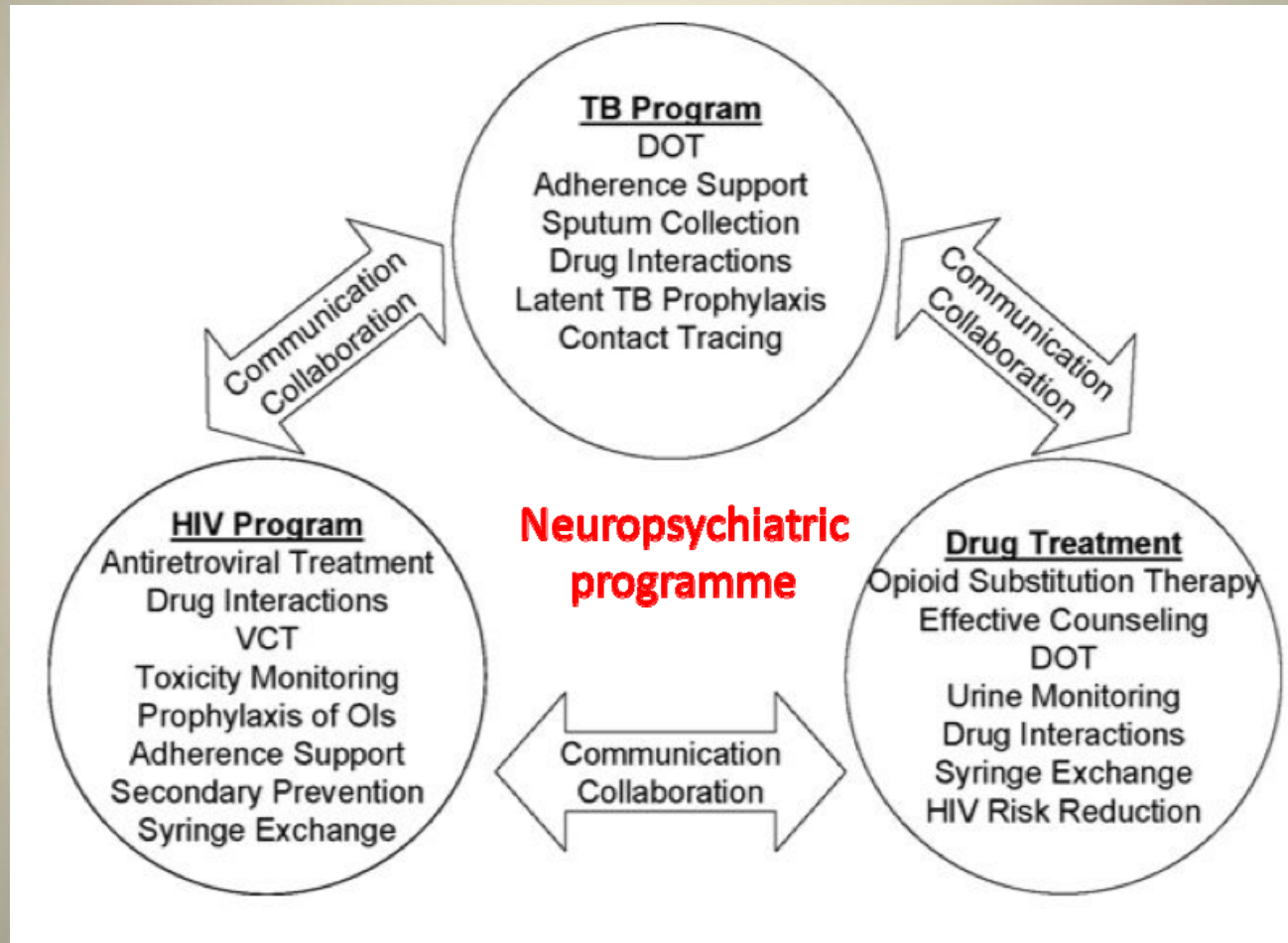




Service Care Package in line with DOH



# Separate, partial and fully integrated care



# Integrated Care

- Can integrated care lead to improvements of treatment adherence, health outcomes, patient satisfaction, reductions in cost, sustainable in long run?? Soto et al AIDS care 2004
- The ultimate programme: Provide access to ancillary services & delineate mechanisms for multidisciplinary provider collaboration
  - Material support – food and housing
  - Education re aids
  - Self help support gorups (?specific to drug users)
  - Case management
  - Transportation
  - Client advocacy
  - Child care
  - Dental care



## The outcomes and outpatient costs of different models of antiretroviral treatment delivery in South Africa

Sydney Rosen<sup>1,2</sup>, Lawrence Long<sup>2</sup> and Ian Sanne<sup>2,3</sup>

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**Table 5** Average cost per patient by outcome category and site (2006 USD)<sup>a</sup>

| Site      | Treated (all outcomes)<br>(n) | In care and<br>responding (IC)<br>n <sup>IC</sup> = all IC<br>subjects | In care but not<br>responding (NR)<br>n <sup>NR</sup> = all NR<br>subjects | No longer in care<br>at site (NIC)<br>n <sup>NIC</sup> = all NIC<br>subjects | Average cost to<br>produce a patient in<br>care and responding<br>sample/<br>n <sup>IC</sup> = all IC<br>subjects |
|-----------|-------------------------------|--|--|--|---|
| Site 1    | \$776 (\$308) <sup>b</sup>    | \$903 (\$173)  | \$981 (\$53)   | \$317 (\$154)  | \$1128  |
| Site 2    | \$896 <sup>a</sup> (\$394)    | \$1168 <sup>a</sup> (\$196)  | \$1108 (\$241)   | \$567 <sup>a</sup> (\$318)   | \$1223  |
| Site 3    | \$932 <sup>a</sup> (\$448)    | \$1157 <sup>a</sup> (\$263)  | \$1113 <sup>a</sup> (\$123)  | \$368 (\$338)  | \$1480  |
| Site 4    | \$1126 <sup>a</sup> (\$332)   | \$1210 <sup>a</sup> (\$194)  | \$1297 <sup>a</sup> (\$149)  | \$489 (\$381)  | \$1482  |
| All sites | \$928 (\$396)                 | \$1109 (\$242)   | \$1149 (\$179)   | \$450 (\$317)  | \$1438  |

<sup>a</sup>Difference from Site 1 significant at 5% level using *t* test for two samples assuming unequal variances.

<sup>b</sup>Values converted to USD at average exchange rate for 2006, R6.8 = \$1.

<sup>c</sup>Numbers of subjects or denominators for each site and outcome category are shown in Table 4.

<sup>d</sup>Figures in parentheses are standard deviations.

| Outcome at<br>month 12 ± 2   | In care and<br>responding<br>(IC) | In care but<br>not responding<br>(NR) | No longer<br>in care at<br>site (NIC) | RR [95% CI] <sup>a</sup> |
|--|-----------------------------------|---------------------------------------|---------------------------------------|--------------------------|
| <b>a. Outcomes and median CD4 count by site and outcome category</b> |                                   |                                       |                                       |                          |
| Site 1 (n = 100)   |                                   |                                       |                                       |                          |
| n (%)  | 67 (67%)                          | 37%                                   | 26 (26%)                              | 1.00                     |
| Median CD4<br>cells/mm <sup>3</sup>                                  | 96                                | 88                                    | 103                                   |                          |
| Site 2 (n = 100)   |                                   |                                       |                                       |                          |
| n (%)  | 52 (52%)                          | 1 (1%)                                | 45 (45%)                              | 1.24 (1.1-1.9)           |
| Median CD4<br>cells/mm <sup>3</sup>                                  | 89                                | 74                                    | 78                                    |                          |
| Site 3 (n = 100)   |                                   |                                       |                                       |                          |
| n (%)  | 63 (63%)                          | 9 (9%)                                | 28 (28%)                              | 1.08 (1.0-1.70)          |
| Median CD4<br>cells/mm <sup>3</sup>                                  | 89                                | 81                                    | 107                                   |                          |
| Site 4 (n = 100)   |                                   |                                       |                                       |                          |
| n (%)  | 56 (56%)                          | 11 (11%)                              | 33 (33%)                              | 0.50 (0.27-0.92)         |
| Median CD4<br>cells/mm <sup>3</sup>                                  | 111                               | 110                                   | 75                                    |                          |
| All sites (n = 300)  |                                   |                                       |                                       |                          |
| n (%)  | 258 (86%)                         | 30 (8%)                               | 112 (28%)                             | n/a                      |
| Median CD4<br>cells/mm <sup>3</sup>                                  | 93                                | 86                                    | 79                                    |                          |

| Criterion   | n   | %  |
|---|-----|----|
| <b>b. Criteria used to assign outcome categories, full sample</b> |     |    |
| In care and responding (IC)                                       | 159 | 49 |
| Undetectable viral load   | 16  | 4  |
| Acceptable CD4 change   | 81  | 21 |
| No WHO Stage III-IV condition                                     |     |    |
| In care but not responding (NR)                                   | 8   | 2  |
| WHO Stage III-IV condition  | 8   | 2  |
| Undetectable viral load   | 11  | 3  |
| Unacceptable CD4 change   | 9   | 2  |
| No longer in care at site (NIC)                                   |     |    |
| Died  | 41  | 10 |
| Stopped attending site  | 71  | 18 |

<sup>a</sup>Relative risk of being no longer in care NIC at 12 months with Site 1 as the reference.

<sup>b</sup>Most recent CD4 count prior to ART initiation. The study samples were limited to those who initiated ART with a CD4 count >200.

ART, antiretroviral treatment.





## Article Abstract

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## Cost-effectiveness Analysis of Integrated Care for People with HIV, Chronic Mental Illness and Substance Abuse Disorders

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“There is not enough evidence to either limit continued exploration of integration of care for triply diagnosed patients or adopt policies to encourage it, such as financial reimbursement, grants regulation or licensing”.



# Barriers to integrating care

- “Uncomfortableness” of staff to go beyond their scope of practice.
- Training of staff
- Time
- Human Resources
  - Both primary and tertiary care staff
- Supervision
- Cost
- Poor / No referral systems
- Social factors – stigma



# Knowledge Attitudes and beliefs



## ORIGINAL ARTICLE

### KNOWLEDGE, ATTITUDES AND PERSONAL BELIEFS ABOUT HIV AND AIDS AMONG MENTALLY ILL PATIENTS IN SOWETO, JOHANNESBURG

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Aerial View of Chris Hani Baragwanath Academic  
Hospital



# Why the need

- Large percentage of CHBAH patients are diagnosed late in the course of their disease – thereby preventing early entry into care and inability to facilitate risk reduction
- 3 distinct groups of patients:
  - Pre-existing MI with co-morbid HIV
  - MI secondary to HIV - High rates of MP 2 HIV / HAND
  - Mental Health of those on ART
- Doctor bias with regard to perceived non adherence (attitudinal barriers)– patients weren't getting ART or adequate follow up and intervention
- Specialized cohort of patients.
- Barriers of access to care need to be reduced



# Adherence

- Adherence among those with SMI can = that of the general population. Psychiatric patients are experienced medication takers and must not be underestimated when ART is concerned Wagner et al AIDS care 2004

- Individuals with psychiatric disorders were significantly less likely to discontinue HAART in the first and second years of treatment. Mental health visits are associated with decreased risk of discontinuing HAART Himeloch et al AIDS 2009



# Secure the future's seven steps





Luthando Psychiatric HIV clinic, CHBAH



Luthando Garden Group



Luthando Activities Group



Luthando Peer Ed Group



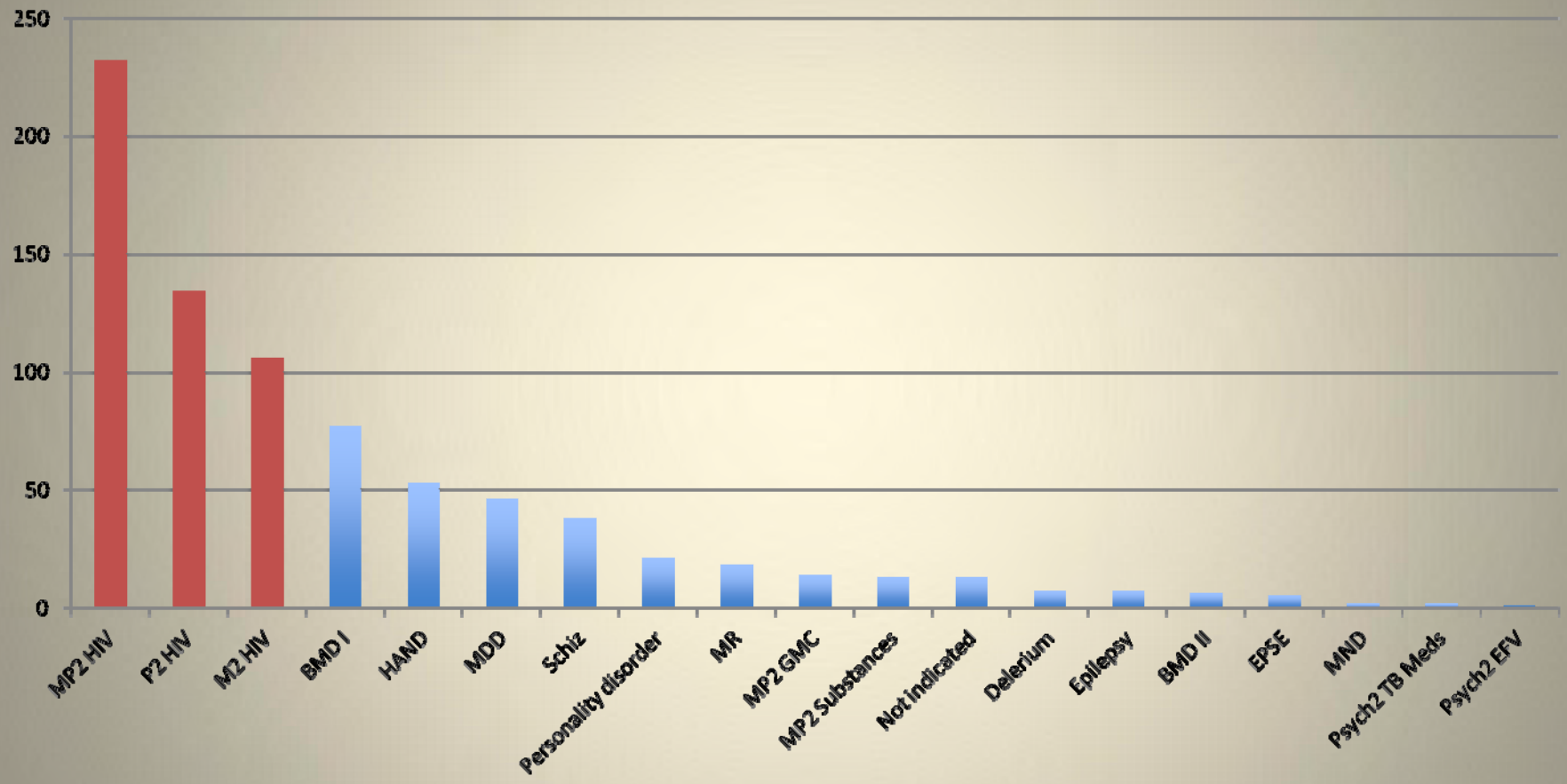
# What we offer

- Behavioural interventions and ancillary services co-ordinated with medical care
  - responsive to patients needs
  - play an important role in promoting adherence and improving health outcomes
- Providers that proactively work with patients and prioritize services based on patient wishes = demonstrated improved engagement and retention in care.
- Flexibility, Senior level patient care involving community participation



# 59% of diagnoses were considered secondary to HIV

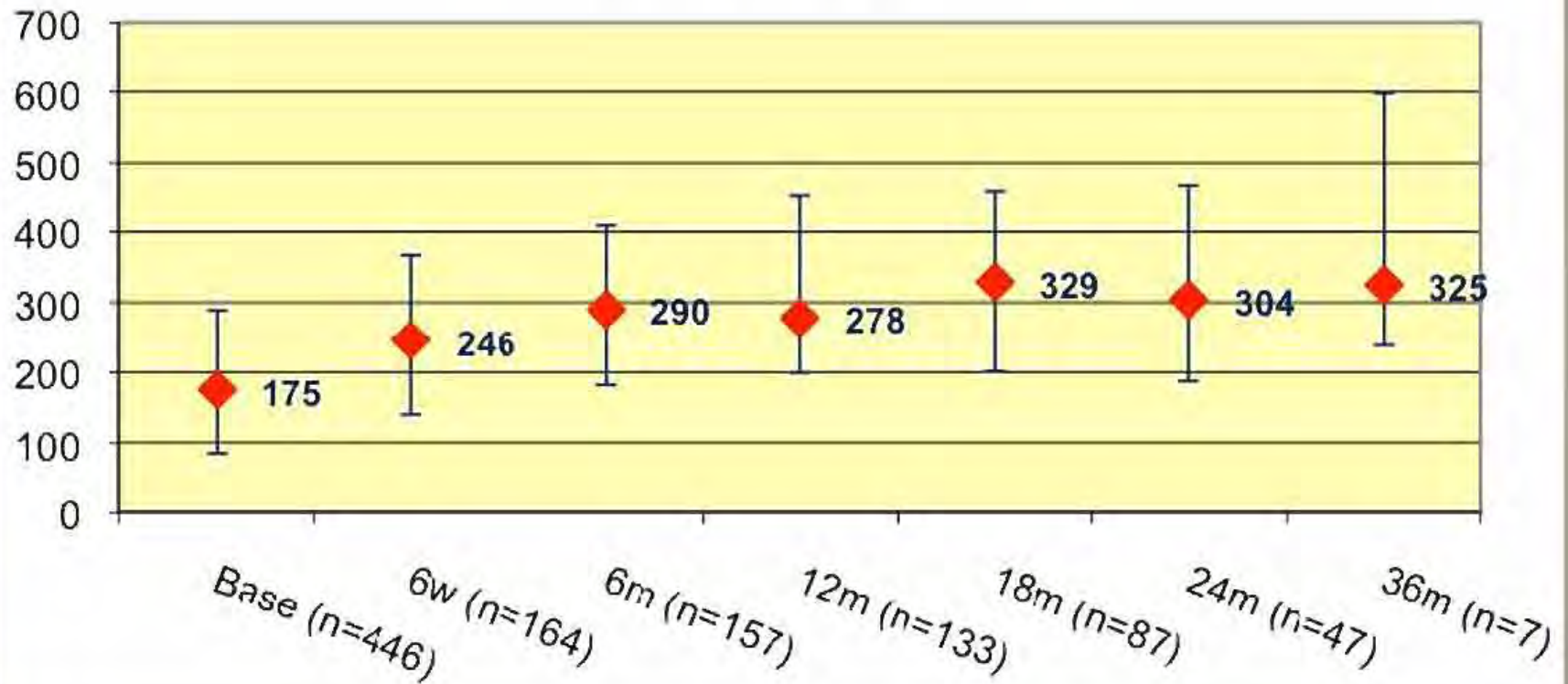
Conditions secondary to HIV



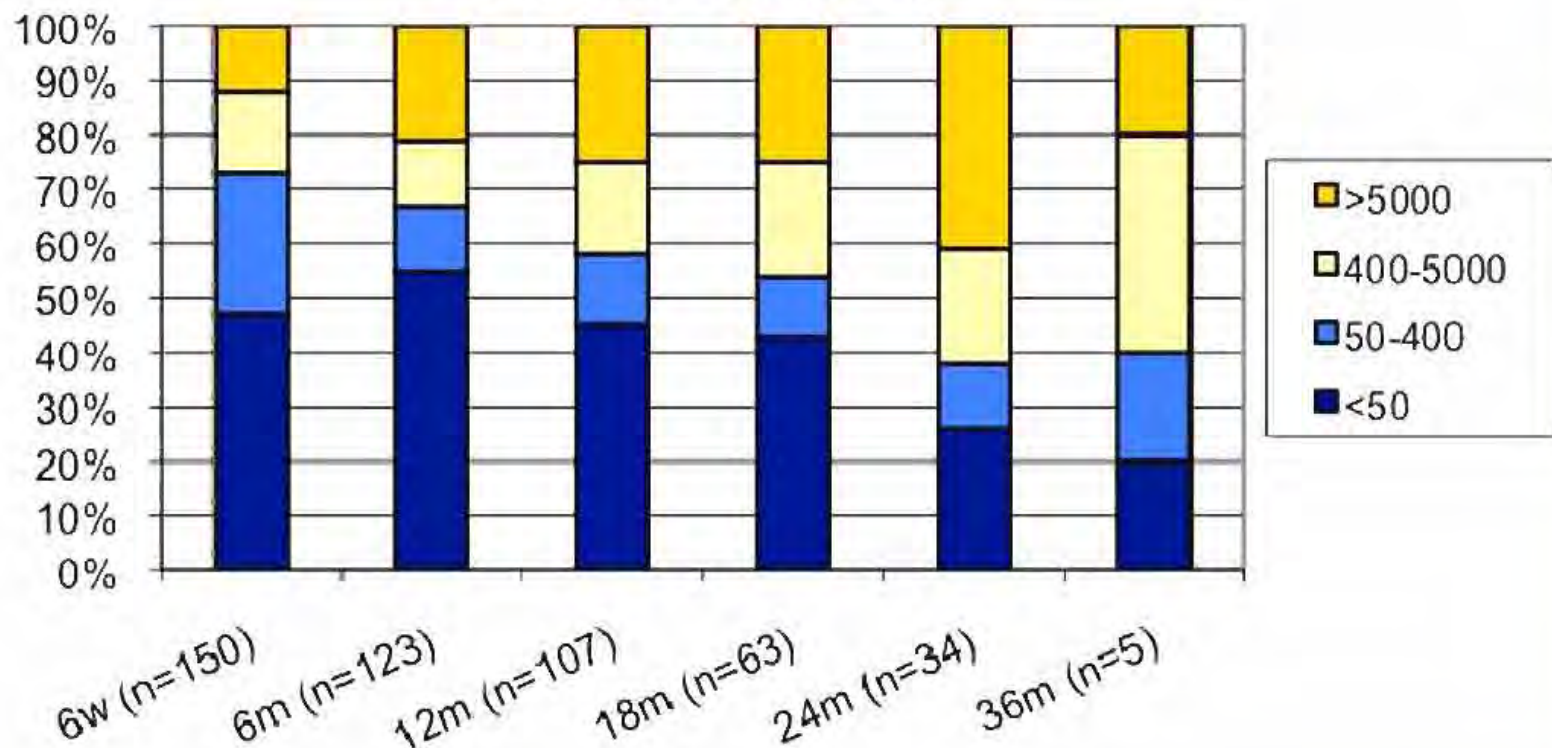
Source: Luthando database



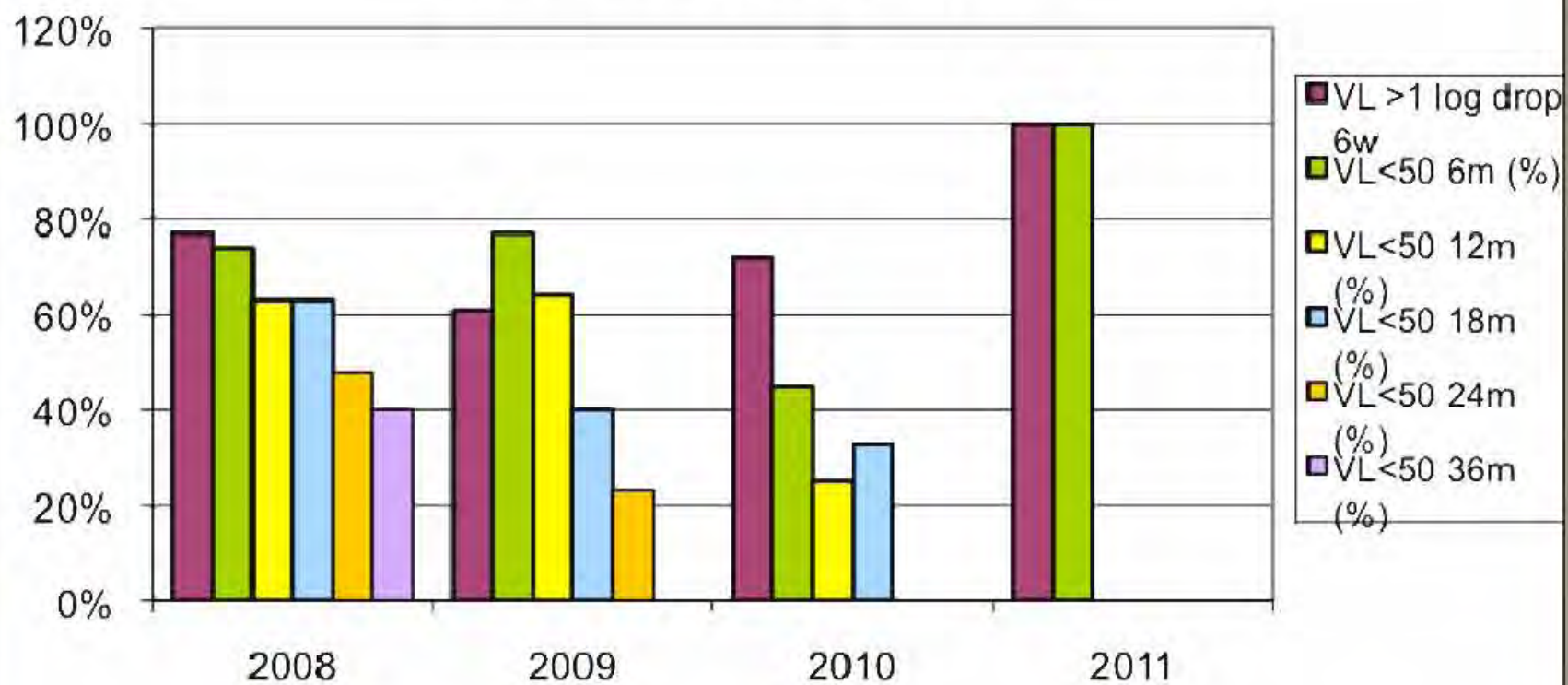
## CD4 Response



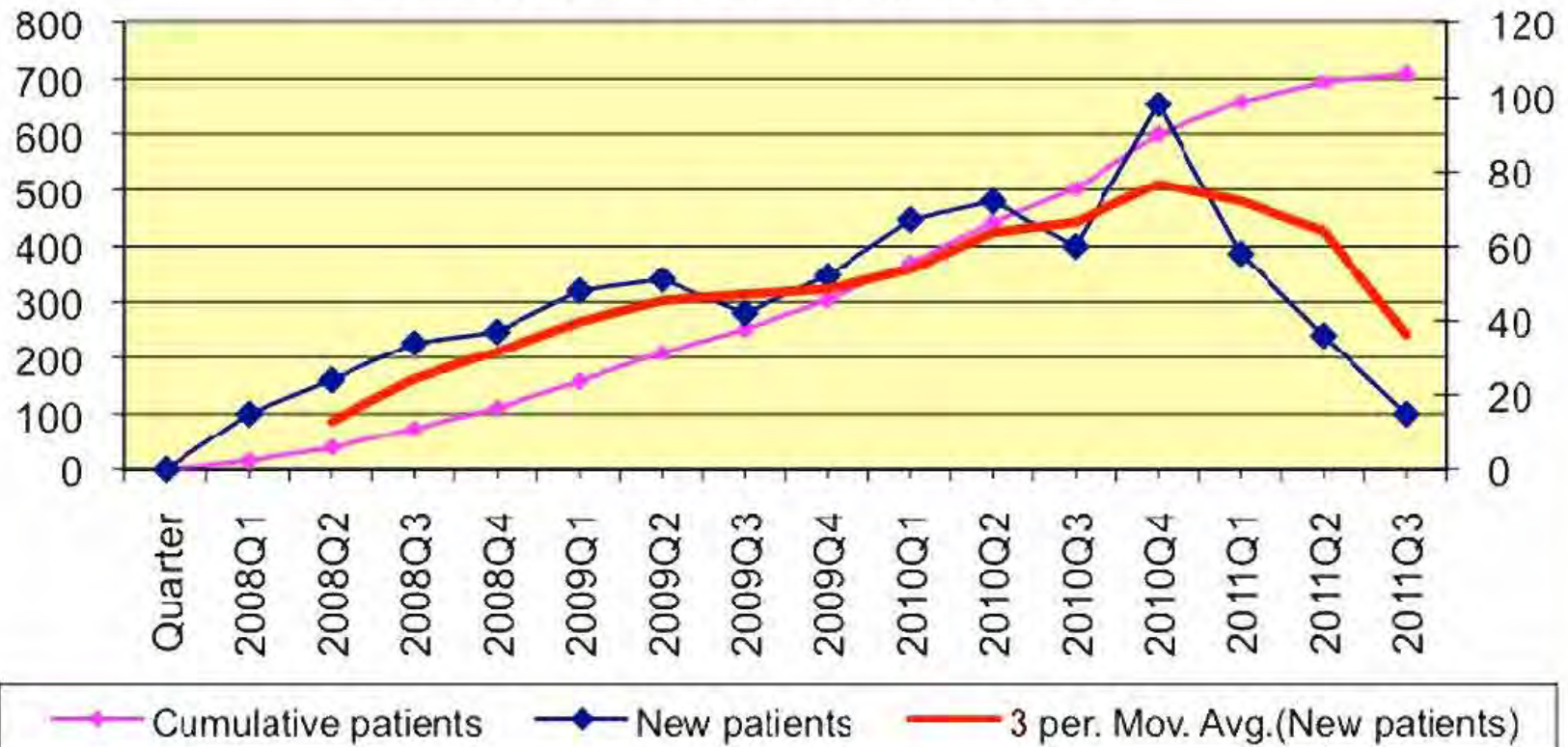
### Viral Load Response



## Viral Load Cohort Analysis



## Quarterly Program Registrations



# Challenges/Barriers to integrating our service

- Adequate space – condemned building
  - Restrictions by management
  - Limited resources to conduct community outreach
  - Staff related challenges: turf issues, training and role clarification
  - Confidentiality
  - Challenges in sustaining ongoing process evaluation
- Meredith et al AIDS Pt Care and STD's 1998



# Long term sustainability?

- Administrative structures and current lines of authority and accountability will not enable successfully integrated care programmes
- Human resources and physical facilities infrastructure – assembled and financed
- Provider professionals' incentives and career pathways be structured to provide stable and sustainable MDT's
- Continued adaptation to changes in standards of care in a public sector service?



Tertiary hospital/  
super-specialist clinic

District /  
community  
psychiatric clinic

PHC





+



+

+



+



+



=

MENTALLY WELL HIV+ POPULATION



# Expansion of Luthando Psychiatric HIV clinics



Bristol-Myers Squibb Foundation  
**SECURE THE FUTURE<sup>®</sup>**  
Care and support for Communities Affected by HIV/AIDS in Africa



# Way forward: Development of Sub-speciality in Neuropsychiatry

- Promulgation of sub-speciality by government
- There is a need for sub-specialist knowledge in order to address the burden of disease in a systematic and structured way.
- **Argue**: Psychiatry cannot support sub specialties due to scarceness of resources **VS** Neuropsychiatry could focus on improving evidence-based-health-care delivery at primary care level
- Neuropsychiatrist led training and skills-transfer of lay health workers in detecting common mental disorders at HIV primary care clinics.



# Conclusion

- Mentally ill patients are at an increased risk of contracting and transmitting both HIV and vice versa.
- In a health care system where general health services are not provided equitably to patients with mental disorders **MORE** needs to be done to integrate HIV, TB and Neuropsychiatric services.



# Recommendations

- Promotion of and replication of the Luthando projects integrated HIV, TB and Neuropsychiatric illness service in order to promote adherence and improve quality of life amongst mentally ill individuals.
- Promote training of staff in the identification of mental disorders among general HIV clinic attendees and treatment of these conditions.
- Promote integration of HIV, Psychiatric and TB pharmacies in order to improve adherence by decreasing time spent in queues
- Promote de-stigmatization of both mental illness and HIV.
- Conduct cost analysis research into integrated care in developing countries



# Gratitude goes to:

- Adj Prof Y Jeenah and Adj Prof Y Moosa
- Anova Institute: Prof J McIntyre and Ms H Struthers
- Bristol Myers Squibb Secure the future foundation (TAP): Mrs Beryl Mohr, Mrs P Mtshali
- Aurum Institute: Mrs G Gresak, Dr C Innes
- Ms. J Mzinjana & Staff at Luthando

