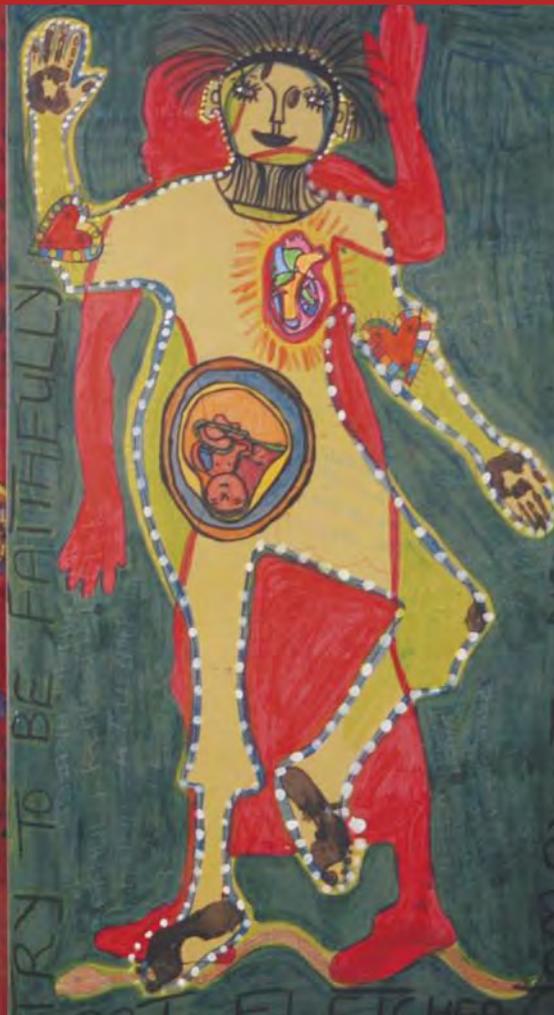


Khayelitsha 2001-2011



SUMMARY

ACTIVITY REPORT 10 YEARS OF HIV/ TB CARE AT PRIMARY HEALTH CARE LEVEL.



10 YEARS OF HIV/TB CARE AT PRIMARY HEALTH CARE LEVEL

INTRODUCTION



The Khayelitsha programme was the first in South Africa to provide antiretroviral therapy (ART) at primary care level in the public sector. It is also one of two pilot projects in the country to provide decentralized care for drug-resistant tuberculosis (DR-TB). This report highlights what has been achieved collectively by several service providers (Province of Western Cape,

City of Cape Town, NGO and Community Based organizations) and describes the key clinical programme and policy changes that have supported universal coverage for HIV and TB care over the last 10 years. The report demonstrates that it is possible to achieve most targets set forth in the National Strategic Plan (NSP) for HIV/Aids and Sexually Transmitted Infections (STIs); including achieving “universal coverage” of ART needs, by 2011. Funding for ARV’s helped to strengthen the overall health system, and the implementation of a large-scale TB/HIV programme resulted in decreased illness and death among people living with HIV as well as a likely reduction in the number of new HIV infections. Although much remains to be done, this report shows that is possible to turn back the tide of HIV and TB.

PREVENTING NEW INFECTIONS

Decreasing rates of HIV among pregnant women

Antenatal prevalence in Khayelitsha increased from 15% in 1999 to 31% in 2006. It then stabilized before decreasing to 26% in 2010. With more pregnant women receiving ART, one would expect an increase in prevalence if new HIV infections remained stable. It is likely that the rate of new HIV infections has started to decline in Khayelitsha although alternative explanations, such as migration, cannot be ruled out. A number of interventions have been implemented to achieve this aim, including: community-wide condom distribution, large-scale HCT, ongoing awareness campaigns, and high coverage of ART which reduces transmission by decreasing viral load in individuals and in the community.

Massive increase in HIV testing and counselling (HCT)

The number of people tested for HIV every year in Khayelitsha increased from 16 000 in 2003 to more than 55 000 in 2010. During the same period, positive rates among people tested decreased from 32% to 20%, indicating that HIV testing has become more acceptable and that more people test before they become unwell.

Large-scale community condom distribution led to a drastic decrease in sexually transmitted infections

Between 2004 and 2009, condom distribution increased from less than 200 000 to more than one million a month. During the same period, the number of adults treated for sexually transmitted infections (STI) decreased from 2 000 to 500 per month.



Male walk-in clinic successfully testing and treating men

Since the opening of the male walk-in clinic in 2007, the number of men treated for STIs increased from 843 to 3 547 in 2010. In the same year, 27% of all men tested for HIV in Khayelitsha were tested in one single clinic located next to a taxi rank and dedicated to males.

Improved diagnosis and treatment of tuberculosis (TB)

TB case-finding increased from 900/100 000 in the first quarter of 2002 to 1 500/100 000 in 2008 and then remained stable until 2010, with an increase in smear-negative and decrease in smear-positive TB cases. During the same period, cure rates initially decreased to 44% by mid 2005 and then increased to 81% in the second quarter of 2010.



Decentralization of integrated TB/HIV services to every clinic along with increased diagnosis of smear-negative TB with improved TB diagnostic methods (smear-negative algorithms, systematic TB culture, line-probe assay, and piloting of the GeneXpert in Ubuntu Clinic) as well as systematic screening of all HIV patients for TB, has led to an increase in TB diagnosis. Despite the increased case load, improved case detection has resulted in better treatment outcomes, such a higher cure rates for TB.

DECREASING DEATH RATES

Reduction in mortality of adults on ART

The death rate of adults at three months on ART decreased from 10% in 2002 to 2.2% in 2010. This is the consequence of earlier initiation of ART. It is possible that improved detection of TB pre-ART has also contributed to this reduction.

The number of patients started on ART increased from 100 at the end of 2001 to 20 000 in May 2011. Enrolment onto treatment went up from less than 10 a month in 2001 to 465 a month in 2010. Active decentralization of nurse based treatment initiation in every single clinic in Khayelitsha was the main factor for this achievement.

Reduction in infant deaths

Infant mortality has decreased from 42/1 000 live births in 2003 to 35/1 000 in 2009 following the introduction of a prevention of mother to child HIV transmission programme by the Provincial Government of the Western Cape in 1999, demonstrating a clear impact of this intervention at the population level. HIV testing of pregnant woman is above 99% and most of these women choose the option of free exclusive formula feeding. In a pilot project in Site B, ART has been integrated into the midwife obstetric unit in order to improve access for pregnant women. As a consequence of all these strategies, transmission of HIV from mother to child decreased from 12% in 2002 to 2.5% in 2010.

Fewer children need to start ART



The number of children started on ART each year increased from four in 2001 to 145 in 2008, then decreased to 115 in 2010. This decrease is most likely due to the success of the PMTCT programme.



Improved survival in DR-TB patients

Mortality related to drug-resistant TB has decreased since the programme started in 2007. Of those diagnosed with DR-TB in 2008, 62% were still alive 18 months after diagnosis. This compares favourably with reports from elsewhere in South Africa given that 76% of DR-TB patients are co-infected with HIV.

DECREASING ILLNESS

Patients start ART earlier every year.

The median CD4 count at initiation of ART rose from 43 cells/ μ l in 2001 to 162 cells/ μ l in 2010. In parallel, 50% of patients starting ART in 2001 were classified as WHO stage 4 and only 16% as stage 1 or 2. In 2010, almost 50% were WHO stage 1 or 2, and only 20% were stage 4. This is the result of

increasing access to ART over time, which has been achieved by decentralizing ART to every health facility in Khayelitsha, integrating TB and HIV care, nurse-based care and large scale HIV testing and counselling. In addition, ongoing information campaigns by the Treatment Action Campaign, have led to a reduction of stigma as well as patients seeking better treatment. Despite significant policy change, South Africa still has to adopt full WHO guidelines which recommend earlier ART initiation for all PLWHIV with a CD4 count of ≤ 350 cells/ μ L, regardless of the clinical stage.



Decreasing TB rates in patients on ART and shorter time to ART for TB patients with 'one-stop shop' TB/HIV integration

Fifty per cent of patients starting ART at Ubuntu Clinic have TB and 70% of TB patients have HIV. To respond to this dual epidemic, integration of TB and HIV services was first piloted in Ubuntu and Town 2 clinics, and later rolled out to all clinics in Khayelitsha.

In a 'one-stop shop' fully TB/HIV integrated clinic, co-infected patients have one folder and see the same health staff in the same clinic for both diseases. TB/HIV integration has resulted in a dramatic reduction of the time to start ART in TB patients (from 42 to 26 days in one clinic). In 2008, 99% of TB patients in integrated clinics were offered HIV counselling and 95% were tested for HIV. In addition, 99% of patients tested HIV positive had a CD4 count result recorded and > 95% were started on cotrimoxazole preventive therapy.

Earlier initiation and decentralization of treatment for patients with drug-resistant tuberculosis

Diagnosis and treatment of drug-resistant tuberculosis at primary care level has resulted in a decrease of the median time to initiation of treatment from 71 days in 2007 to 33 days in 2010. Prior to 2007, all patients had to be admitted to a TB hospital to receive their treatment. In 2010, 71% of patients were managed at their local clinic and only 14% were admitted to hospital to initiate treatment.



Gradual evolution towards improved first line regimen

Documentation of high rates of adverse events with D4T in Khayelitsha contributed to the evidence base that led to the WHO recommendations to reduce the dosage and later to replace D4T with a less toxic alternative. Tenofovir was introduced initially in 2005 for patients with D4T toxicity and then in 2010 was incorporated as part of the new national first line regimen.

CHALLENGES OF LONG-TERM ART PROVISION

Retention in care

While mortality decreased steadily from 2001 to 2010, losses to follow-up initially increased when the numbers of patients on treatment increased and services were showing signs of saturation. In Ubuntu Clinic, loss to follow-up rates started to decrease again after 2008, suggesting successful adaptation of the clinic in managing high numbers of patients on treatment. This adaptation included the introduction of adherence clubs and nurse-led management of the majority of patients. At five years on treatment, 65% of patients were still in care, highlighting the need for innovative strategies to improve retention in care. Pre-ART loss to follow-up remains a major challenge.

Youth

Pre-ART loss to follow-up is especially high among the youth. In 2010, up to 70% of eligible young people in the Youth Clinics defaulted care before starting ART; 60% of those defaulted immediately after HIV testing. This trend improved during 2010, possibly as a result of increased support interventions.



Courtesy: Daniela Cerqueira Batista

Site C Youth group activities

Treatment failure

At five years on ART, an estimated 14% of patients had virological failure and 12% were on 2nd line ART. Mortality and treatment failure is high in patients on 2nd line.

Out of 32 patients failing 2nd line ART, 60% had chronic poor adherence, 30% returned to undetectable viral loads after enhanced adherence support and four had to be switched to a 3rd line regimen. Third line drugs such as darunavir, raltegravir and tipranavir are currently not available in the public sector due to their high cost (up to 15 times the price of first line drugs).

CHALLENGES AND INNOVATION

A way to keep patients in care: the Adherence Clubs



Adherence Clubs, in which groups of up to 30 stable patients are seen every two months by a lay health worker, have been piloted in Ubuntu Clinic since 2007 to alleviate pressure on health care staff and to adapt care to the needs of chronic stable patients. An interim evaluation of the clubs revealed that of 755 patients enrolled into clubs only five (0.7%) patients died and eight (1.1%) became LTFU, with 99.2% of the patients alive at one year and 97.5% alive at two years of club care. Preliminary analysis of the clubs data strongly suggest that patients in the clubs are less likely to be lost to follow-up compared to similar patients attending normal care. In 2010, the first community clubs were started, where patients are able to receive their ARVs in the community.



First Club opened in the community

Reducing HIV and TB incidence further

Despite the early signs indicating reduced incidence of HIV infection in Khayelitsha, the initial target of 50% reduction in incidence, which was the aim of the current NSP in adults, has not been achieved. A noticeable exception is PMTCT where transmission has been reduced by 250% making the objective of 'an HIV-free new generation' with vertical transmission < 1% achievable within the next 5 years.

Behavioral interventions along with the current medical intervention should be enhanced.

Innovative preventive biomedical interventions and intensification of the current strategies must be prioritized in order to succeed and move toward prevention of new HIV infections in adults.

Improve TB/DR-TB case detection (ICF)

For both TB and DR-TB, the paradigm of prevention as treatment has already been established. Early diagnosis and treatment initiation reduces the risk of ongoing transmission, as treatment for both TB and DR-TB dramatically reduces patients' infectiousness. Access to molecular diagnostic tools (LPA/Xpert MTB/Rif) should be improved to include screening for all TB suspects in Khayelitsha. This would greatly increase TB and DR-TB case detection which, combined with early treatment initiation and wider use of INH prophylaxis, will improve treatment outcomes and reduce transmission of TB in Khayelitsha.

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Published June 2011
Cover photo by TAC
Design/ artwork: Kallid Creative Identity, www.kallid.co.za

