Evaluation of the Test and Treat Policy for HIV Management in the eThekwini metro of KwaZulu-Natal, South Africa: Are we winning?

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Introduction – eThekweni

- eThekweni Metro (Durban), South Africa
- On the Indian Ocean
- Population: 3.5m
- Beautiful city… many inequities…

- High levels of poverty, unemployment, and crime including gender based violence
- Generalized HIV epidemic
- HIV Prevalence: 19%
Introduction – eThekweni HIV (All)

90-90-90 Cascade - Total Population
eThekweni (Mar 2023) – Public & Private Sector
Total PLHIV: 686 951

- PLHIV: 686 951 (96%)
- PLHIV who know their status: 659 089 (80%)
- PLHIV on ART: 618 256 (80%)
- Viral loads done: 556 430 (91%)
- Virologically Suppressed: 500 787

PLHIV in eThekweni (ALL)
Pop: 686,951
March 2023

- Unknown suppression (15%)
  - Diagnosed
  - On ART
  - No VLD
- Virally Suppressed (56%)
- Transmittable HIV (29%)
- Untransmittable HIV

- Not virally suppressed (29%)
  - Undiagnosed
  - Diagnosed but not on ART
  - On ART but not VLS

TOTAL = 198,975
Study Background

- eThekwini is a Fast-Track City (FTC) and included within the Joint UNAIDS-IAPAC Fast-Track Cities Project
- Local investigators implemented IAPAC’s FTC Quality of Care (QoC) Survey in eThekwini as part of the municipality’s FTC initiative
- Ethical approval was granted by University of KwaZulu-Natal Biomedical Research Ethics Committee (BREC 1750/2020)
- Using QoC Survey data, we aimed to assess the implementation consistency of South Africa’s Test and Treat (T&T) policy in the eThekwini metro of KwaZulu-Natal
What is Test and Treat (T&T)? Why implement?

• WHO recommends immediate antiretroviral therapy (ART) for all adults with HIV diagnosis irrespective of clinical stage or CD4 count.

• START trial (2015): Initiating ART at CD4 counts >500 cells/mm3 decreases the risk of serious AIDS and non-AIDS events compared to deferral until CD4 <350 cells/mm3.

• T&T policy: immediate ART initiation post-diagnosis (which supports achievement of UNAIDS Fast-Track targets)
T&T Policy Implementation & Results in Africa

• T&T demonstrates efficacy:
  • Significantly reduces new infections (Brazil, Thailand, Eswatini)
• Since South Africa's adoption of T&T in 2016:
  • 36% increase in immediate ART initiation (Bor J et al., 2020).
  • Elevated proportions of PLHIV knowing their status and starting ART (Plazy M et al., 2019).
  • Significant reduction in HIV incidence and transmission in rural KwaZulu-Natal (Iwuji et al., 2017).
Study Methodology

• The QoC survey employed an observational, cross-sectional design
• Target: PLHIV in 30 healthcare facilities with high HIV burden in eThekwini, South Africa
• Additional samples:
  • PLHIV from among key populations
  • PLHIV from among clients of Traditional Health Practitioners
• PLHIV Survey mobilizers used a paper-based anonymous survey
• Data was collected over a two- to three-month period in 2022-2023.
Findings - Respondents

- Of 564 respondents, most were:
  - Females (58.7%)
  - aged 30-49 years
  - aware of HIV status
  - on ART for 1-4 years
  - adherent to ART (83.2% reporting compliance)

- Participants were categorized into four groups based on time since their HIV diagnosis:
  - < 1 year
  - 1-4 years
  - 5-9 years
  - 10+ years
Findings – First Clinical Visit

Time to First Clinical Visit (after diagnosis):
• Same day: 59.2%
• More than 3 months: 12.9%
Findings – ART Initiation

**Time to ART Initiation** (after diagnosis):
- Same day: 54.4%
- More than 3 months: 14.7%
- Not initiated: 0.4%

**Observations:**
- In the era of T&T policy, there was an improvement in immediate ART initiation
- 11.1% diagnosed for less than 1 year had not started ART.
- 5.6% within the same group experienced a delay of 1-3 months before ART initiation
Findings (Cont’d)

- The percentage of patients initiating ART on day of diagnosis increased across the groups (22.27% for less than 1 year, 32.2% for 1-4 years, 46.7% for 5-9 years, and 62% for 10 or more years).
- Notably, 11.1% of participants diagnosed within the past year were not on ART, while an additional 5.6% had waited 1-3 months for ART initiation.
- Majority of respondents had known their HIV status and were on ART for 1-4 years.

Reasons for delayed initiation:
- patient choice
- stigma
- clinician decision
- CD4 count (pre-T&T era)
Key Observations

T&T improved but not optimal
• ART initiation on the same day of diagnosis improved but not optimal. Deviation from the ideal T&T strategy observed.
• Barriers to immediate treatment: medication choice, affordability, time constraints, and HIV stigma.

Age and Gender-Based Observations
• 30-39 age group: Shorter known HIV-positive duration compared to 40-49 age group.

Gender Discrepancy:
• Males had a shorter known HIV-positive duration than females.
• Implication: Need for strategies targeting early HIV detection in men.
Conclusions

- Despite improvements over the four time periods regarding first clinical visit and early ART initiation, many QoC surveyed patients were not within T&T policy.
- Immediate ART initiation remains crucial for reducing HIV-related morbidity and mortality, preventing HIV transmission, and enhancing quality of life.
- T&T holds transformative potential for global HIV management; addressing associated challenges is paramount.
- However, Africa, with over two-thirds of global PLHIV, faces implementation challenges: health infrastructure, stigma, socio-cultural barriers.
- Efforts should be underway to address these issues, to determine other factors causing delayed ART initiation, and to design specific interventions.
References

