

eThekwini Municipality & CAPRISA Paediatric HIV Treatment Audit

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AWACC

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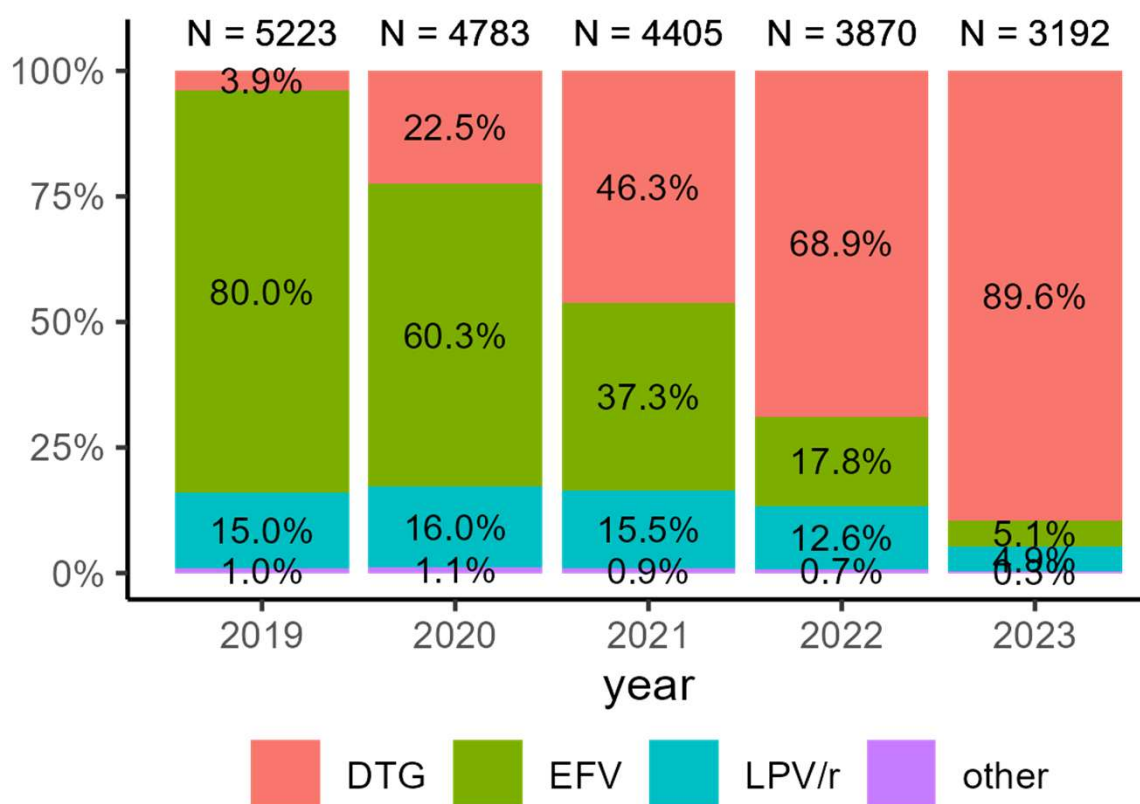
Background

- The 2023 South African antiretroviral (ART) guidelines recommend transition to dolutegravir (DTG) - based regimens for nearly all children
- New 10mg dispersible DTG capsules and DTG 50mg tablets are more tolerable and effective
- Transition to DTG for eligible children was an urgent priority for the eThekweni Municipality Health Unit – Stock arrived at Depot in June 2023 - Rollout at facility level began from approximately September 2023



Background – prior work (October 2023)

We previously looked at DTG rollout in adolescents with HIV (ALHIV) aged 10-18 years



Background – prior work (October 2023)

Monitoring the paediatric DTG rollout needs good TIER.net data

- We were unable to assess the DTG transition among children below 10 years because ART data was poorly recorded
- Children under 10 years old should not receive tenofovir (TDF), yet nearly a quarter of those who started a DTG-based regimen between 2019-12-01 and 2023-12-31 were recorded as on TDF/XTC/DTG

ART regimen in TIER	0 to 9 years old N = 806 ¹	10 to 18 years old N = 5,007 ¹
ABC/XTC/DTG	570 (71%)	545 (11%)
AZT/XTC/DTG	45 (5.6%)	170 (3.4%)
TDF/XTC/DTG	190 (24%)	4,287 (86%)
Other	1 (0.1%)	5 (<0.1%)

Pre-audit Baseline data from Tier.net

Aims

The rollout of paediatric dolutegravir presented an opportunity to:

- Review paediatric files to ensure appropriate transition
- Ensure that children with viraemia were being managed appropriately
- Ensure that the paediatric data in TIER.net was captured correctly
- Help with monitoring paediatric HIV care in eThekweni Municipality

Methods

- Study design: Audit
- Population: CALWH aged 0 to 19 years and receiving ART (LTFU excluded)
- Sites: 59 eThekweni Municipality Clinics
- Captured in a standardised data collection form
- Also free text section for general comments
- SHAPE protocol was approved by Biomedical Research Ethics Committee (BREC), UKZN
- Key auditable points included:
 1. ART regimen (DTG or not)
 2. VL data – taken, captured in TIER
 3. Viraemia (VL > 1000 copies per mL)
 4. Management of viraemia

Methods

- Facility Information Officer (FIO)
 - Generates the line list of Children/Adolescents aged 0-19 years on ART
 - At least 90% of the files on the line list are pulled out by Facility Staff
 - Children LTFU were excluded
- Audit Team comprised of 4 Medical Officers (MO) and we reviewed files for key auditable aspects
 - Files with clinical concerns flagged for clinic medical team
- Audit Team checks the child's HAST file and TIER.net
 - Advises data capturer of any corrections – if there are discrepancies between clinical chart and Tier.net
 - Data capturer makes corrections in real time

Methods

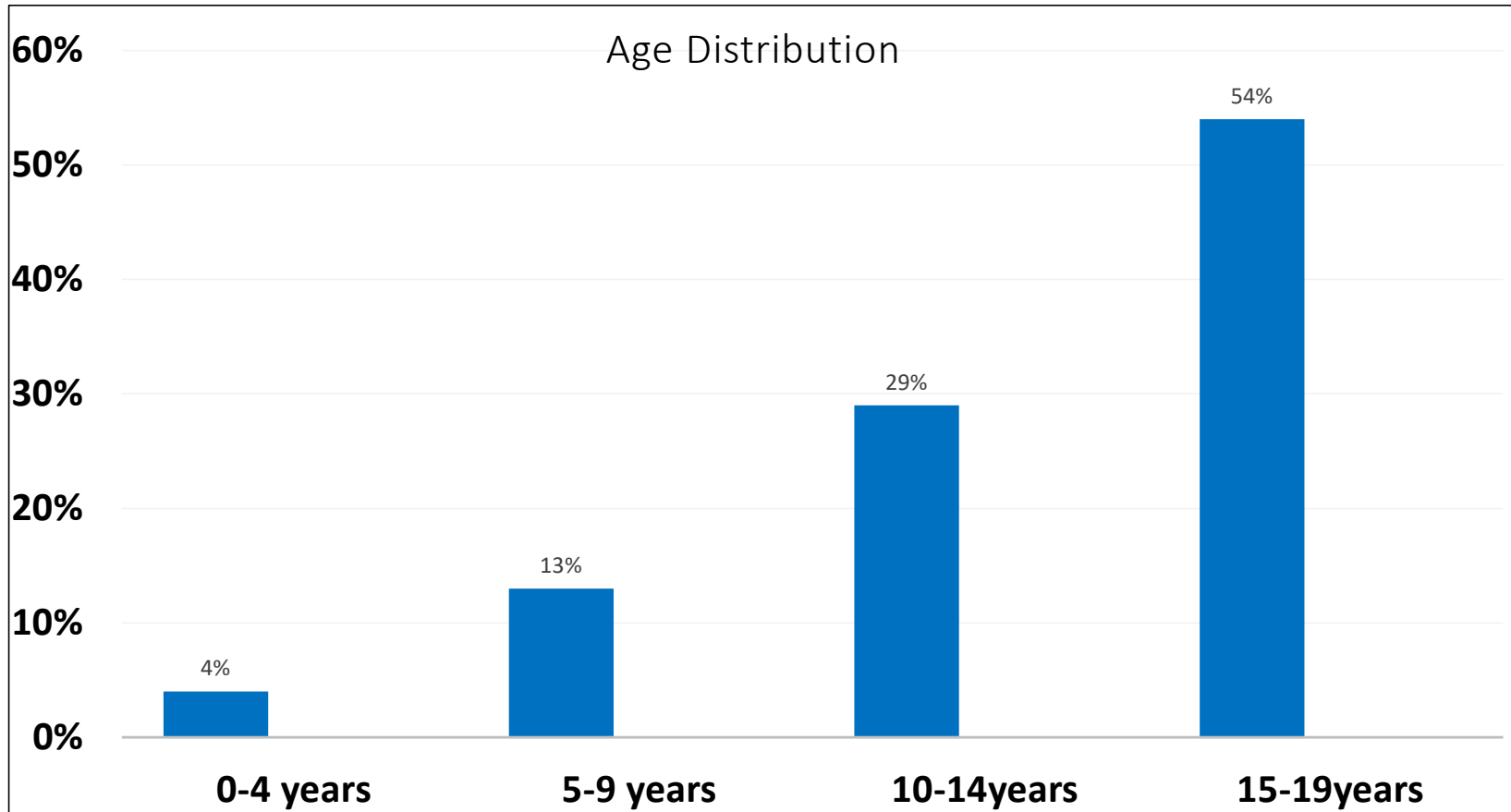
Classification of Findings:

- **Clinical Outcomes** - proportion currently receiving DTG, proportion who received a VL in the last year, proportion with viraemia in the last year, proportion with correct clinical management
- **Data Quality Outcomes** - regimens corrected in TIER.Net, regimen dates corrected in TIER.Net, VLs that had not yet been captured in TIER.Net
- **Outputs** - flagging of children/adolescents who were overdue a VL; flagging of children/adolescents with viraemia who had not yet received appropriate follow-up, ensuring correction of all identified errors in TIER.Net

Results

- Between 21 November 2024 and 17 July 2025, we conducted the audit at 57 eThekweni Municipality primary healthcare clinics
- We identified 3838 eligible CALWH in TIER.Net, and of these we reviewed 3530 (92%) files
- 2072 (59%) were female and 1458 (41%) were male.

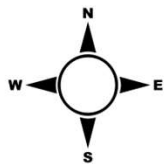
Results



Results – Clinical Outcomes

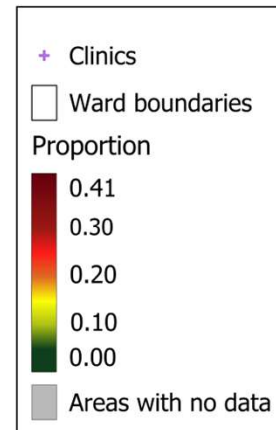
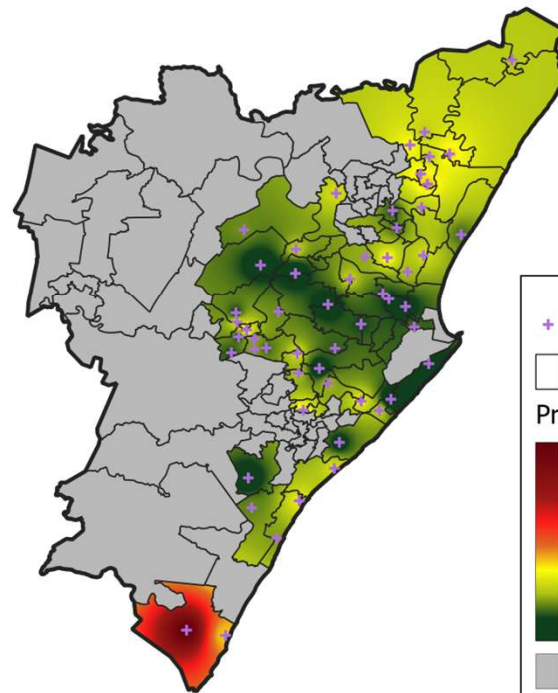
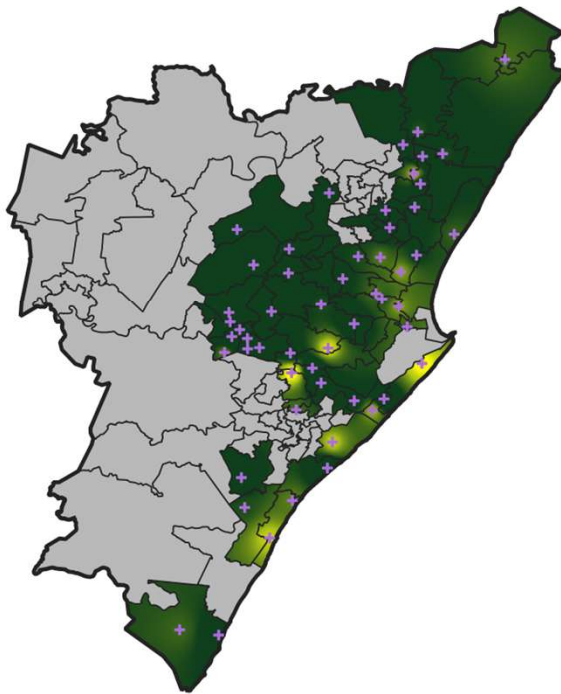
- 3530 (100%) were already receiving DTG
- 187 (5%) did not have a VL result in the last 12 months
- Of those with a VL, 303 (9%) had a VL ≥ 1000 copies/mL at the latest measurement within the last 12 months
- All patients who had VL > 50 had been managed appropriately as per guidelines – EAC was documented and time frame for repeat VL was documented

Results



A. Proportion with no viral load done in the past 12 months

B. Proportion of clients with viraemia



0 5 10 km

Results – Data Quality Outcomes

- 941 (27%) had an ART regimen captured incorrectly in TIER.Net,
- 438 (12%) had ART regimen start/stop dates captured incorrectly
- 201 (6%) had VL data that was not captured in TIER.Net

Results - Outputs

- We flagged patients with viraemia to be booked for the visiting MO to provide an enhanced response to the viraemia
- We also felt these patients would benefit from more in-depth review regarding the possibility of viraemia on a 2nd line DTG regimen – Hence MO review
- All discrepancies noted in Tier.net were corrected in real time – regimen, start/stop dates, uncaptured VLs
- Files were flagged for tracing and urgent VL if VL was missing/not done

Results – General Observations

- 83% of our patients are in the 10 to 18 year age category
- Sexual and Reproductive Health Services was not documented in clinical charts
- Use of Differentiated Models of Care (DMOC) in this age group was not optimal – despite majority of these patients being on Fixed Dose Combinations of ART drugs

Conclusions

- The clinical chart audit confirmed the successful transition of all CALWH attending eThekweni Municipality PHC clinics to a DTG-based regimen
- Only 5% of audited files did not have a VL result in the last 12 months AND 6% had VL data that was not captured in TIER.Net
- Patients with Viraemia were also being managed correctly – EAC, repeat VLs
- This indicates good alignment with national treatment guidelines.
- Areas for improvement include identifying CALWH with unsuppressed VLs, ensuring the capture of VLs in TIER.Net, and resolving data discrepancies between TIER.Net and the clinical notes.

Recommendations and Next Steps

- Strengthening the links between data and clinical staff to reduce the likelihood of such gaps reemerging in the future.
- Increased focus on offering SRH and DMOC as part of routine care in adolescents
- More in-depth follow-up in poorly performing facilities with regards to virological failure planned
- We have planned more in-depth epidemiological analysis of the impact of the rollout of DTG on VLs in this age group – now that we have a cleaner data set

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KWAZULU-NATAL PROVINCE
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