Viral load monitoring in public sector clinics in rural South Africa

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BACKGROUND

- Massive scale up of ART and viral load (VL) monitoring in sub-Saharan Africa
- Both are important tools to ending HIV/AIDS as a public health threat by 2030 (1)
- Limited literature on how VL monitoring (VLM) guides clinical care especially for those failing ART (2)
- We hypothesize poor VLM due to clinic workload

METHODS

- Selected a random sample of 800 individuals from 10 public sector clinics in the Hlabisa sub-district who started ART in 2018 and were still in care on 28 February 2020
- Sampling was proportional to the size of the HIV-positive cohort on ART in each clinic
- Patient records on clinic charts were compared with data entered into the electronic ART database (TIER.Net)
- We calculated the proportion of patients with:
  - VL results documented in clinic charts 12 months (± 3 months) after starting ART
  - VL <50 c/mL according to charts
  - VL <50 c/mL according to TIER.Net
  - Missing clinic charts and no results in TIER.Net

RESULTS

- Of 1413 individuals that were eligible, 800 (56.6%) were randomly selected
- 69.4% were female, median age 32.5 years (IQR 25, 39)
- VLM was associated with clinic cohort size (Fig 1 & 2)

-With completion rates of approximately 60%, viral load monitoring performance remains well below goals in public sector clinics of rural KwaZulu-Natal

-System level interventions are needed to respond to this gap and ensure achievement of national HIV control milestones

Fig 1. VLM at 12m by clinic using chart records

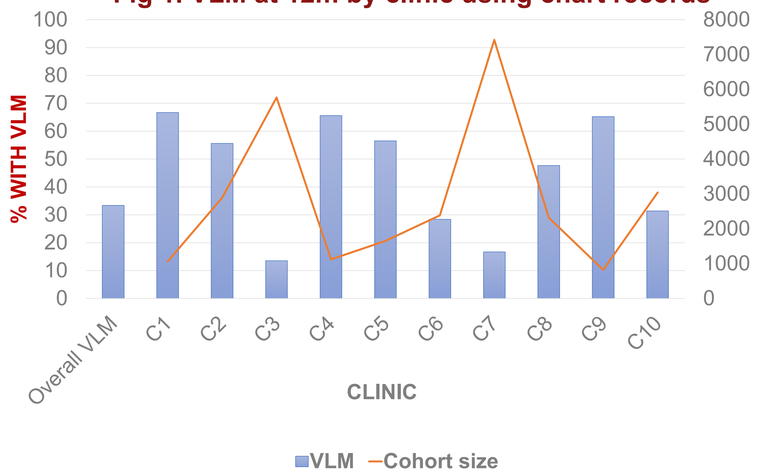
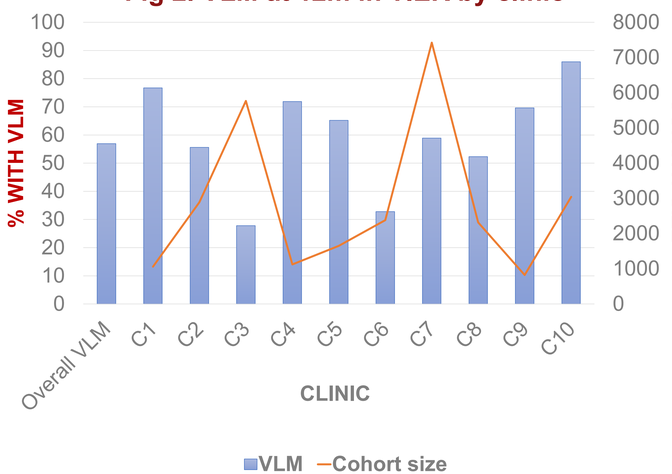


Fig 2. VLM at 12m in TIER by clinic



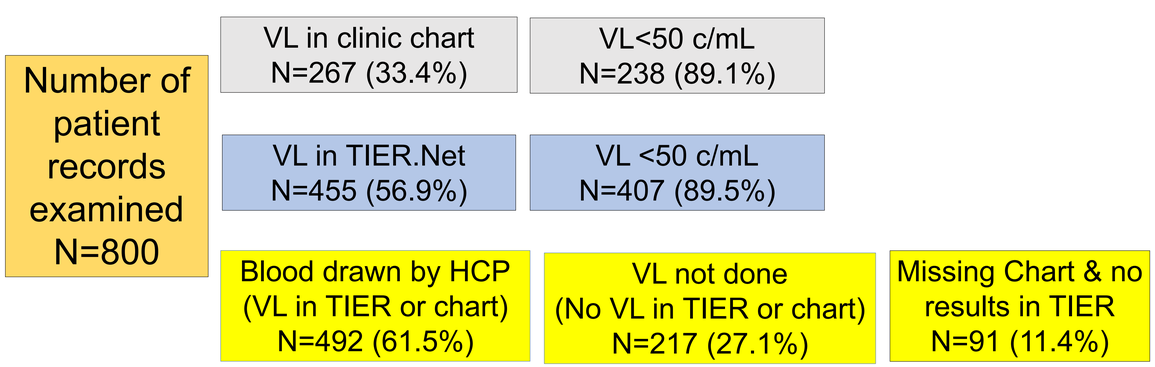


Fig 3. Flow chart of viral load monitoring

- Overall, 492 (61.5%) of patients had documentary evidence of VLM (Fig 3)
- Only a third (33.4%) of individuals had VL documented in clinic charts
- Programmatic reports of VLM which depends on TIER.Net will be based on just over half of individuals on ART
- Viral suppression estimated from data in both clinic chart and TIER.Net were similar

CONCLUSIONS

- This study confirms earlier analyses suggesting suboptimal VLM in public sector clinics in rural South Africa (2)
- Reassuring that amongst those with VL measured viral suppression was high
- There is an urgent need to improve VLM to enable early detection and prompt management of viral failure in order to achieve UNAIDS 95-95-95 targets by 2030

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