IMPLEMENTING A QUALITY IMPROVEMENT INITIATIVE IN A LARGE HIV CLINIC TO IMPROVE THE AVAILABILITY OF PEDIATRIC VIRAL LOAD RESULTS IN RURAL MOZAMBIQUE

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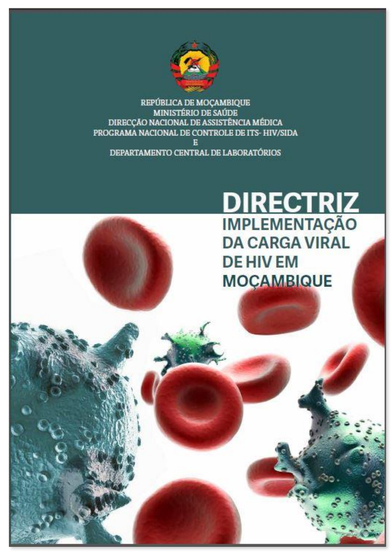
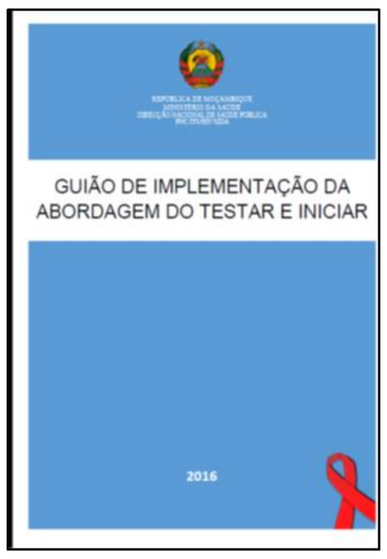
Introduction:

- In 2015, Mozambique adopted routine viral load (VL) testing for all HIV-positive children 2-5 years of age on combination antiretroviral therapy (ART) for ≥6 months.
- This policy was expanded to all patients in 2016 within the `Test and Start` ("Treat All") national policy.
- Programmatic data from 11 supported districts in Zambézia province showed that only 9% of children on ART for ≥6 months had a VL result registered in the Electronic Patient Tracking System (EPTS) between February 2015 - February 2016.
- Embedded within Quality Improvement (QI) initiatives, we designed a cascade including all steps leading up to VL results being communicated to the caregiver.
- Bottlenecks were identified and specific interventions were designed to address them at the individual health facility (HF) level, such as implementation of standard operating procedures for the management of clinical files (CF).
- We analyzed the effect of the QI activities through three consecutive Plan-Do-Study-Act (PDSA) cycles of the pediatric VL cascade in the main HF within the district of Namacurra, currently having 5,779 patients on ART, of which 421 were children <15 years of age.

Methodology:

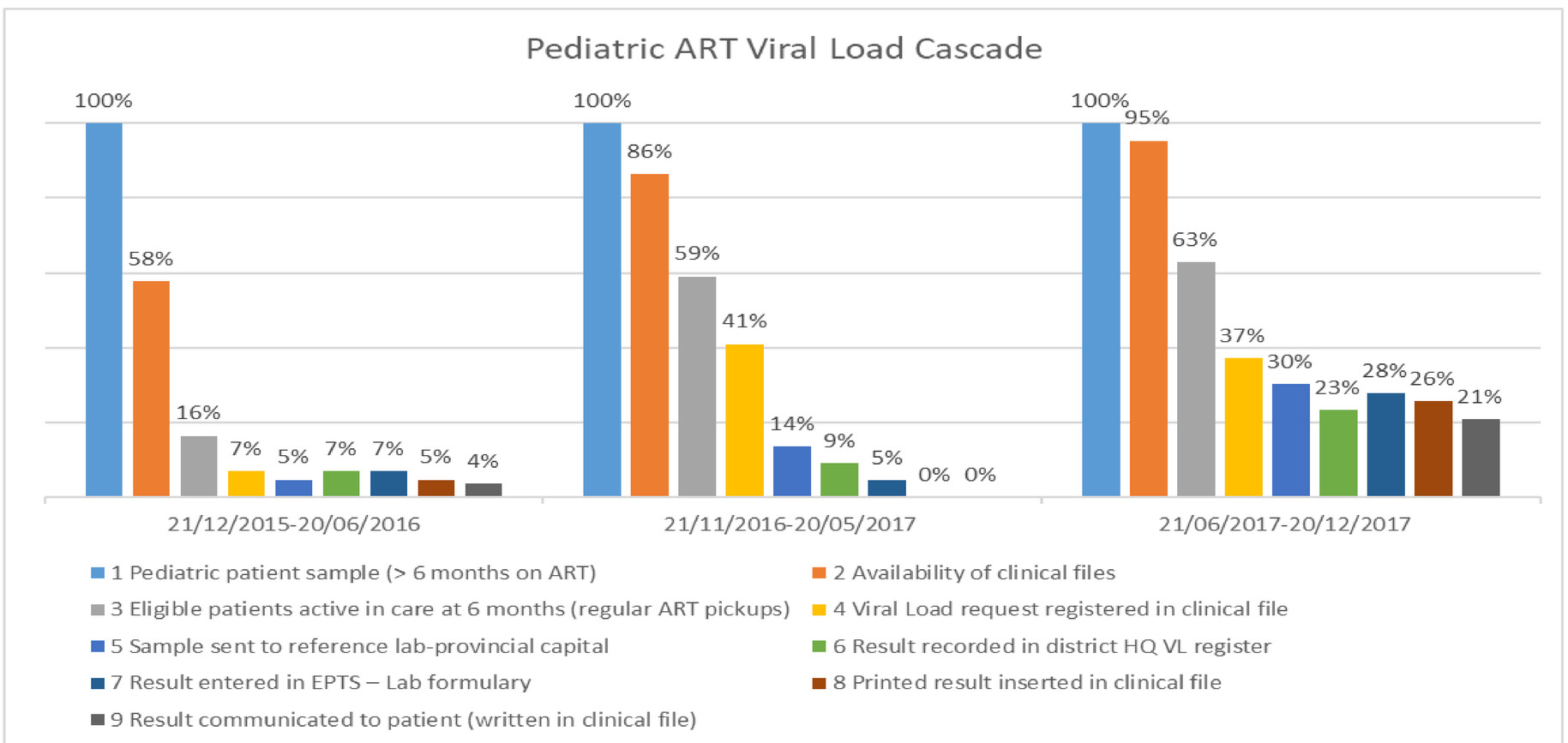
- From the EPTS, we selected all children <5 years of age who initiated ART between December 21, 2015 – June 20, 2016 (Cycle 1), November 21, 2016 – May 20, 2017 (Cycle 2) and June 21 – December 20, 2017 (Cycle 3), respectively.
- Respective lists were identified for HIV-positive children, from which we attempted to locate all CF and then calculated the proportion of CF available.
- Through CF revision, we collected patient-level data for eligibility for VL, defined as having consistent ART pick-ups for the first 6 months following ART initiation, VL requisitions by the clinician, insertion of the VL result slip and registration of the result in the CF, which took place when the VL result was communicated to the patient/caregiver.
- Turn-around time of samples and results were collected from the lab register.
- Entry into EPTS was verified during the 3 consecutive PDSA cycles.

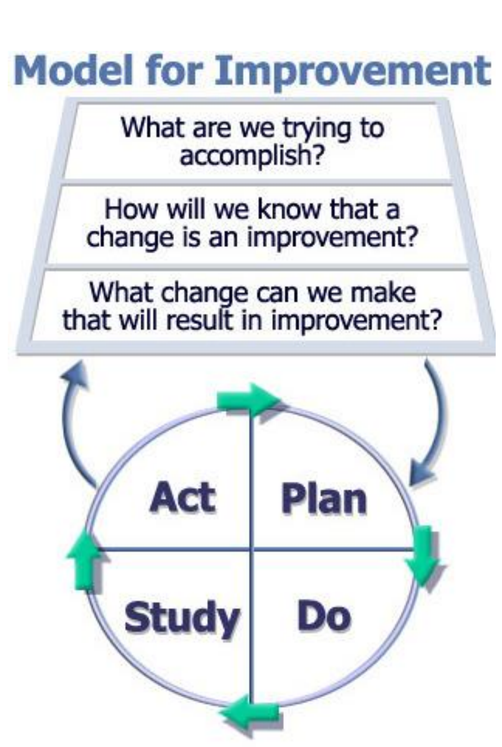




Results:

Figure 1: Namacurra Health Facility Pediatric Viral Load Cascade





- Revision of data of 85, 22 and 43 HIV positive children were done for phase 1, 2 and 3, respectively.
- Initial bottlenecks included availability of CF and inconsistent ART pick-ups (impacting eligibility).
- Subsequent barriers included problems with result availability in the CF.
- Overall, via implementation of this QI initiative, CF availability improved from 58% to 95% , VL request registration from 7% to 37%, and insertion of the printed result in the CF improved from 5% to 26%.
- Communication of VL results to the caregiver/patient was 21% at the end of the 3rd cycle. Of all VL results registered in the district lab register, registration in the follow-up form of the CF improved from 50% to 90%.

Conclusions:

- Despite improvements in the availability of pediatric VL results, registration of VL requisitions by clinicians remained suboptimal.
- This QI initiative identified key components in the pediatric cascade for improvement and inclusion in the QI/HIV action plans of this and other health facilities.
- When implemented consistently, these QI activities could result in significant improvements in pediatric outcomes, including the increases in the number of children being switched in timely fashion to 2nd line regimens as well as inclusion of children who are stable on ART in differentiated care models.

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