



## BACKGROUND

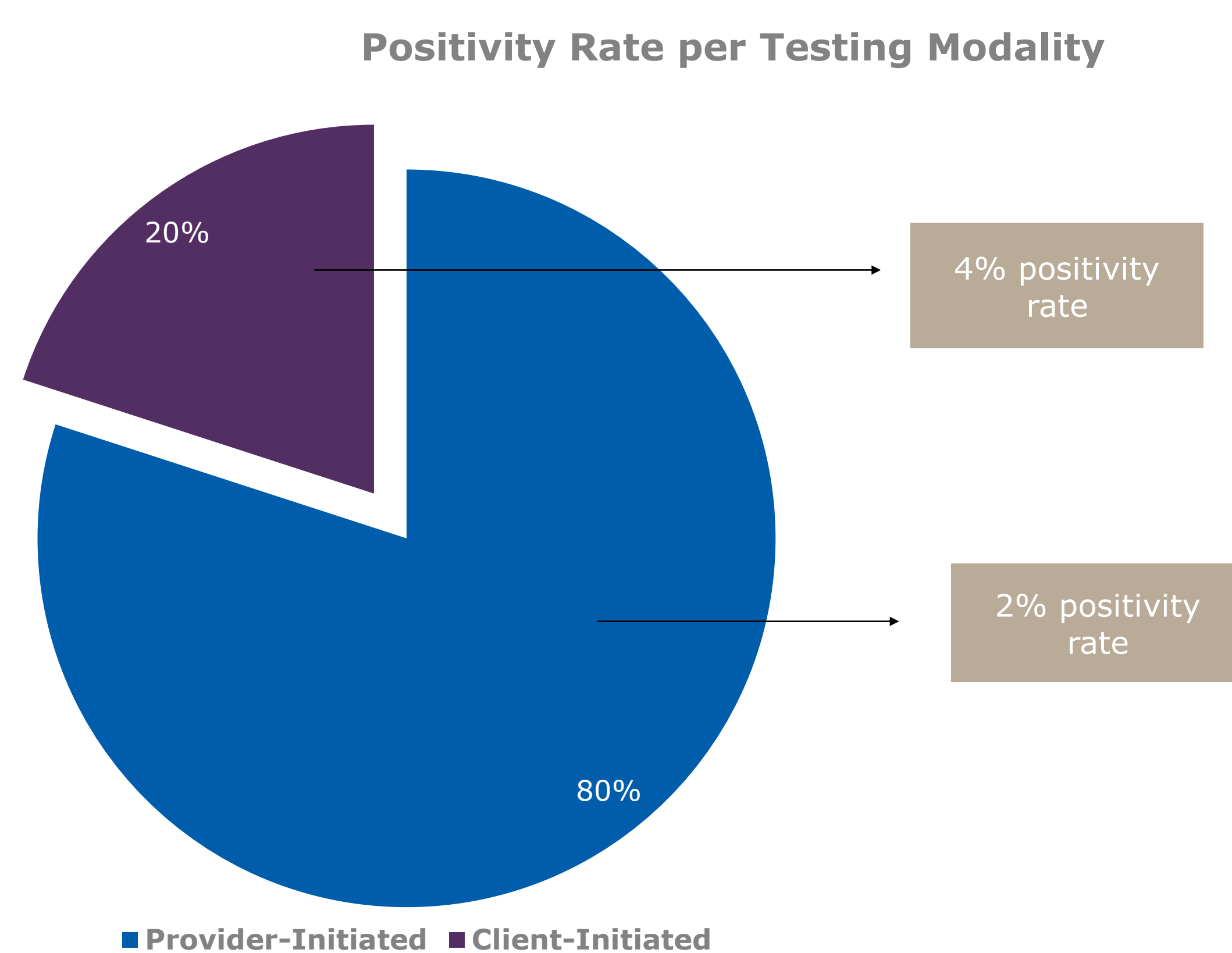
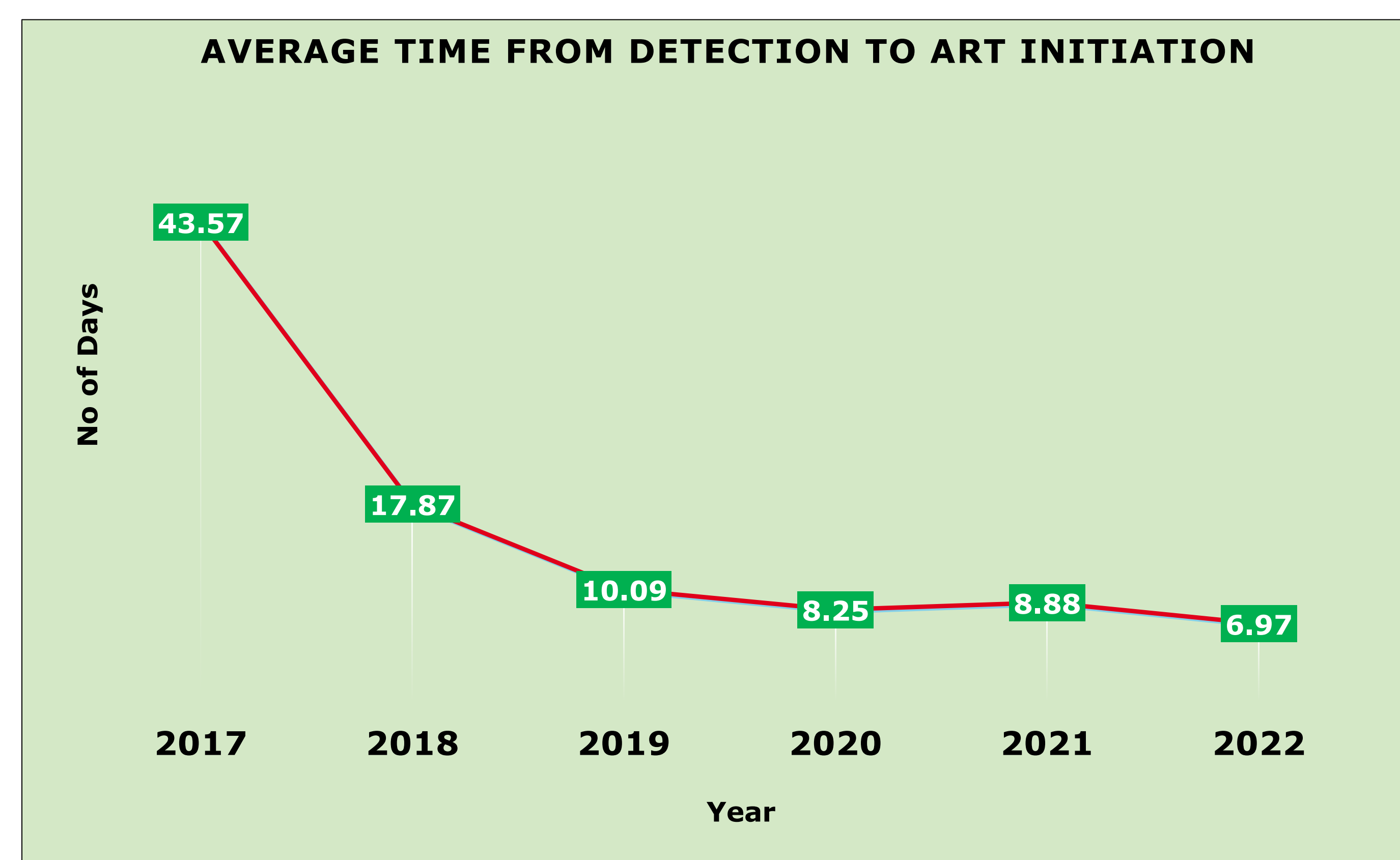
India's AIDS response is decentralized to the district level. In 2022, the State of Andhra Pradesh began systematic collection and synthesis of HIV program data in 11 districts, to understand epidemiological patterns, vulnerabilities, program response and gaps, and strategic priorities at district and sub-district levels.

## METHODS

Routine de-identified data was compiled from over 582 testing centres, 37 key population (KP) interventions, 76 blood banks, 21 anti-retroviral therapy treatment (ART) centres, 20 sexually transmitted infections (STI) clinics, 63 private facilities, and community-based interventions, from 2017-2022. Over 20,000 excel files, over 1,000 variables and 12 million records, was organized into uniform datasets using Extract-Transform-Load tool Power Query. After quality checks and adjustments, the data was consolidated using PowerBI. Dynamic analytic outputs and dashboards with drill-down, cross-filtering features were developed. Data pipelines have been established to update the analysis with new data. District and facility-level staff were fully involved for sustainability.

## RESULTS

Routinely collected data shed light on treatment response (CD4 and viral load) and its association with other factors like gender, age, occupation, KP status. Data generated evidence for the growing role of casual sexual network and spousal transmission in new infections. Provider-initiated (PI) testing modality was 80%, while client-initiated (CI) testing was 20% of the total tests, however, positivity was double in CI (4%) as compared to PI (2%). High rates of positivity (>50%) were observed among spouses of HIV-infected pregnant women. STI clinic attendance is higher among females; specifically young and adolescent girls, as compared to men. The average time from HIV detection to treatment initiation in 2017 was 43.57 days, which significantly fell to 6.97 days in 2022 (significant with t value 29.65 and P value < 0.05). The median time between ART initiation and first viral load test fell from ~24 months to 7 months.



## CONCLUSIONS

Routine data triangulation highlights programmatic gaps and focus and has huge potential for program improvement and creating culture of data analysis and use. This project database and dashboard strengthen real time, assisting and decision making. It greatly contributes to strengthening HIV epidemiological understanding at decentralized levels of program.