



Results of tracing ART clients who interrupted care in Mpumalanga District, South Africa

BACKGROUND

- ◆ South Africa's Differentiated Model of Care SOPs (SOP 7, Tracing and Recall) recommend contacting all clients who are late for scheduled clinic visits or medication pickups, a strategy known as "tracing." Guidelines recommend that clinics:
 - Trace any client who is ≥ 7 days late and has consented to tracing.
 - Prioritize for tracing HIV clients who a) have advanced HIV disease (AHD) and are in their first 6 months on ART; b) have a viral load >50 copies/ml; c) never initiated on ART; or d) are late for specific assessments or tests.
 - Start with tracing by telephone but also use text and WhatsApp messages and home visits, as consent allows.
 - Record tracing attempts and results in registers and files.
- ◆ In most facilities, clients are identified for tracing using a "missed visit list" generated by the electronic medical record system, Tier.Net, and by contacting clients whose files had been pulled in anticipation of a prior visit but not claimed. In a previous study, 2/3 of facilities said that they begin tracing on the day after a missed visit rather than waiting 7 days.
- ◆ Although nearly all clinics do trace clients who are late for visits and a standard tracing register exists, there are multiple approaches to keeping records of tracing activity and outcomes. As a result, little is known about the uptake and impact of tracing in routine care.
- ◆ We used available tracing registers and Tier.Net records to estimate tracing eligibility, contact, and return rates to explore the effectiveness of tracing and how to improve it.

METHODS

- ◆ We conducted a retrospective cohort study at the 6 public primary healthcare clinics in Ehlanzeni District in Mpumalanga Province that participate in the SENTINEL observational study of HIV service delivery.
- ◆ We linked data for adult ART clients from paper tracing registers with electronic medical records to analyze tracing attempts, contact made, and subsequent outcomes.
- ◆ Data were extracted manually in June-August 2025 from paper tracing registers covering between 8 and 16 months between January 2024 and July 2025. The duration of data collection varied by site due to register availability.
- ◆ The primary outcome assessed was return to care ≤ 30 days after tracing eligibility.
- ◆ Multiple sub-outcomes were estimated to describe the tracing cascade from determination of eligibility for tracing (≥ 7 days late) to return to care or another final status (transferred, died, lost to follow-up, mistakenly classified as eligible).
- ◆ Data for the study pertained to months in which facility operations were affected by the abrupt termination of implementing partner support in January 2025, likely causing both disruptions to tracing procedures and more missing data for this study than might otherwise have been the case.

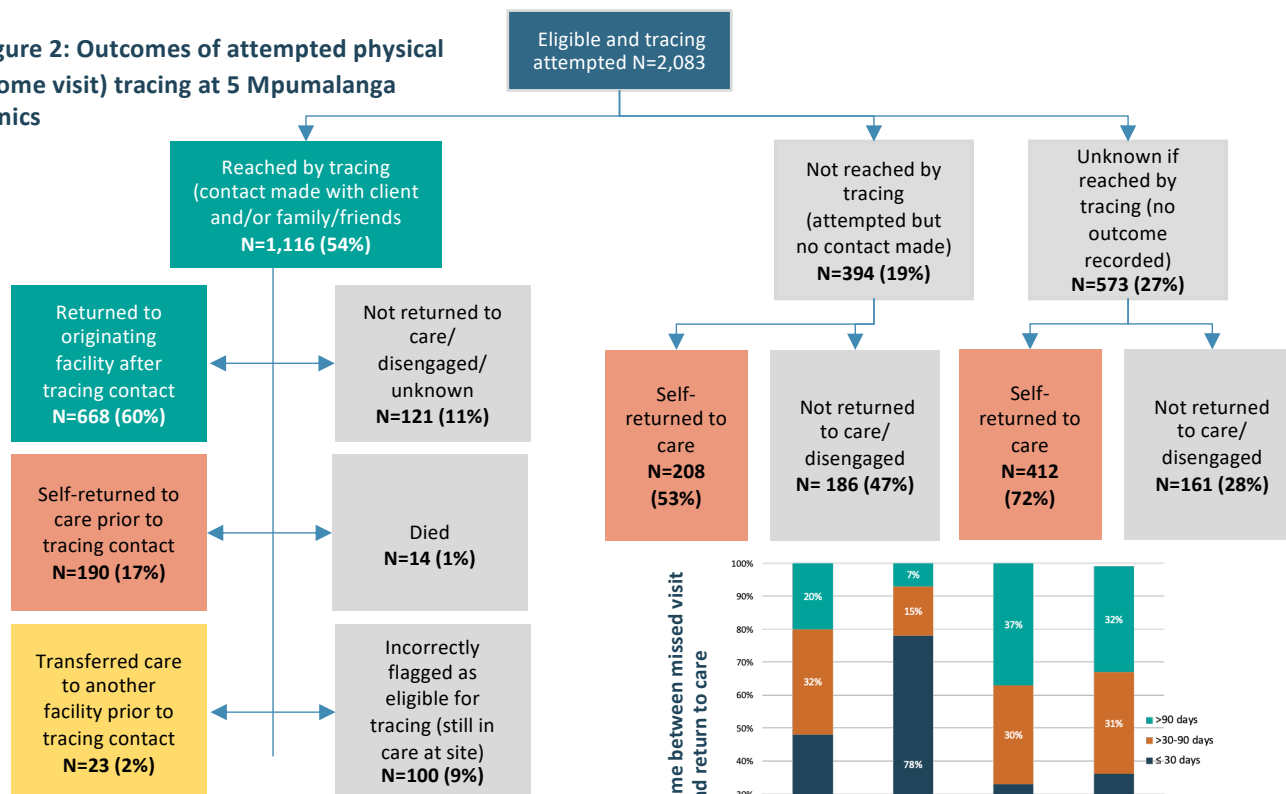
RESULTS

- ◆ Of the six facilities in Mpumalanga participating in the study, one had no tracing registers on hand at all. This site reported that phone contact for tracing may be recorded directly into patient files or not recorded. All physical tracing registers at this site were also missing.
- ◆ The remaining five facilities participating in the study could provide **physical (home visit) tracing** registers only. Some facility managers explained that telephone tracing registers had been temporarily removed by former implementing partners following funding termination and not yet been returned at the time of study data collection.
- ◆ Most sites were missing physical tracing registers for several months of the study period (Figure 1).
- ◆ Records for a total of 2,820 clients were extracted from the five facilities' physical tracing registers, of whom 2,083 were unique individuals who could be linked to their full records in Tier.Net. (Of those excluded, 61% were duplicate entries in the tracking registers, while the rest were ineligible for the study or could not be linked to a full Tier.Net record.)
- ◆ Of the 2,083 with linked records, 95% had been on ART for >6 months at the time of tracing eligibility.

Figure 1: Physical tracing registers found at study sites

Site	Jan 24	Feb 24	Mar 24	Apr 24	May 24	Jun 24	Jul 24	Aug 24	Sep 24	Oct 24	Nov 24	Dec 24	Jan 25	Feb 25	Mar 25	Apr 25	May 25	Jun 25	Jul 25
1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
2	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
3							✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
4								✓	✓							✓	✓	✓	✓
5													✓	✓	✓	✓	✓	✓	✓
6																			

Figure 2: Outcomes of attempted physical (home visit) tracing at 5 Mpumalanga clinics



- ◆ Of 2,083 clients for whom physical tracing was attempted, 1,116 (54%) were successfully contacted (Figure 2).
- ◆ 668 of the 2,083 (32%) for whom physical tracing was attempted returned to care at the original facility, equal to 60% of the 1,116 who were successfully contacted.
- ◆ 394 (19%) of eligible clients for whom physical tracing was attempted could not be reached.
- ◆ 17% (190) of those successfully contacted had already returned to care at the time of contact; 53% (208) of those who could not be contacted returned to care.
- ◆ 573 of eligible clients (27%) had unknown outcomes from tracing, with no outcome recorded in registers.
- ◆ 9% (100) of those contacted by tracers had been incorrectly flagged as eligible--they had not interrupted care at all.
- ◆ 48% of those who returned after tracing came back within 30 days of their missed visit, compared to 33% not reached and self-returned (Fig 3).
 - Guideline SOP 8 for Re-Engagement in Care defines re-engagement as returning >28 days after a missed visit or refill; in Figure 3, most of those in the dark blue boxes would not be deemed re-engagers.
- ◆ 34% of those reached by tracing returned within 20 days of missing a visit and 52% within 40 days; there was a significant difference in probability of return by tracing status (Figure 4).

Figure 3: Time between missed visit and return to care

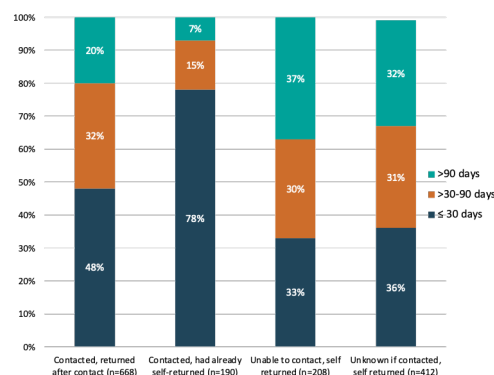
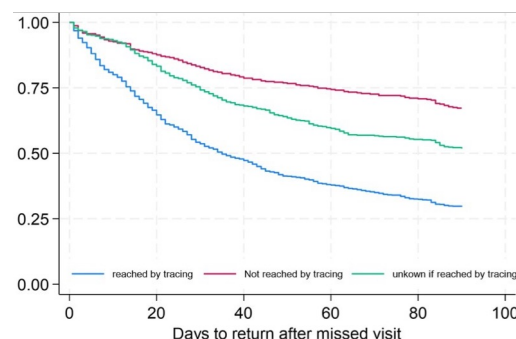


Figure 4: Probability of not returning to care after missing a visit



CONCLUSIONS

- ◆ Just over half of clients (54%) for whom physical tracing was attempted could be contacted by tracers, and 32% of clients for whom tracing was attempted returned to care.
- ◆ 60% of clients who were contacted and 53% who could not be contacted returned to care at the original facility.
- ◆ Clients reached by tracing were more likely to return to care than those who could not be reached.
- ◆ A quarter of those traced had already returned to care at the original facility (or never interrupted care at all).
- ◆ Poor documentation of tracing activities made it very difficult to estimate the effectiveness of tracing efforts.
- ◆ Standardizing tracing procedures and documentation within facility systems has the potential to improve tracing outcomes.