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Using the TIER.net preART module to investigate the gap to treatment initiation of individuals with a positive HIV test

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Data Use Innovations Meeting
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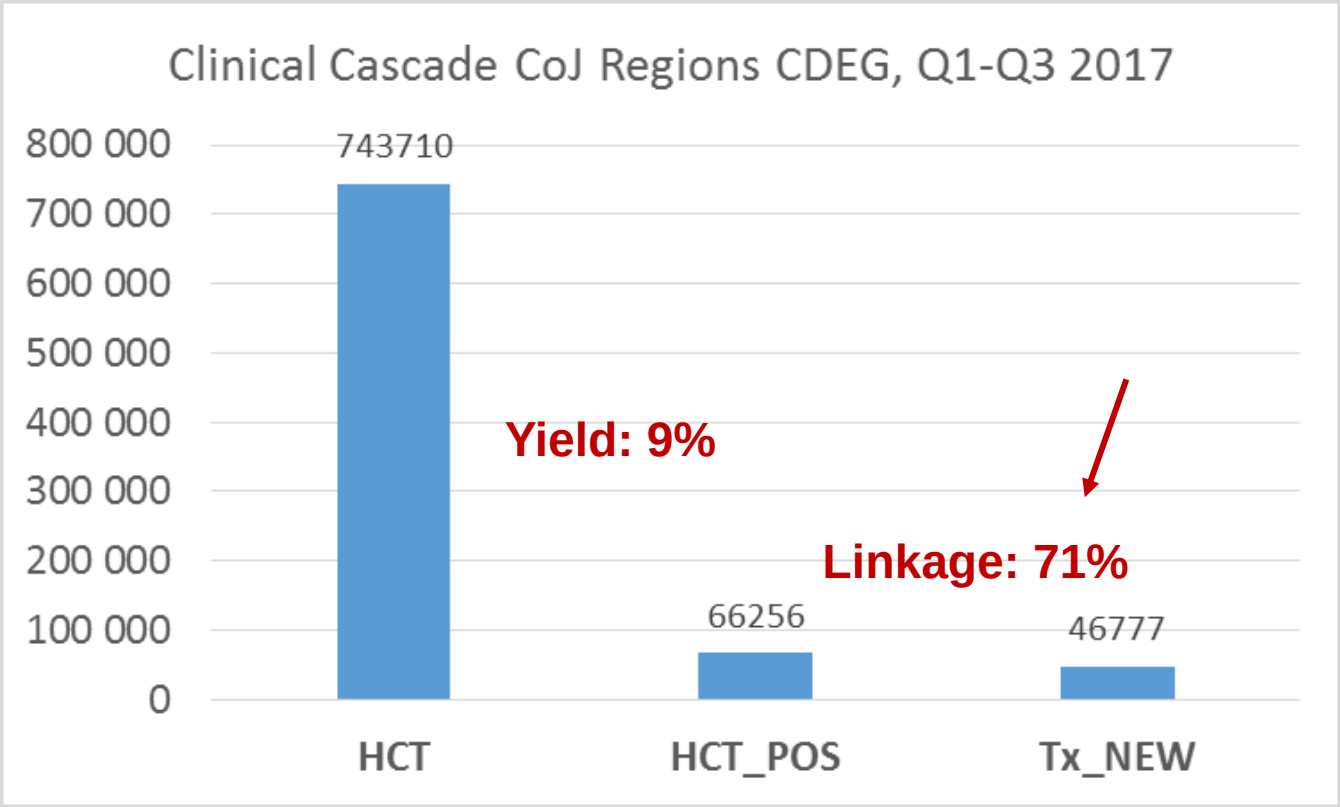
Background

- Linkage of individuals with positive HIV test into ART remains a challenge



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Background

- Closing the linkage gap is essential to achieve the 90-90-90 targets in our districts
- Efforts to strengthen linkage require insight into underlying factors
- These factors could be:
  - Patient-related (e.g. 'not ready', migration)
  - Healthcare-associated (e.g. service availability)
  - Data challenges (e.g. double capturing, multiple testing and at multiple facilities)

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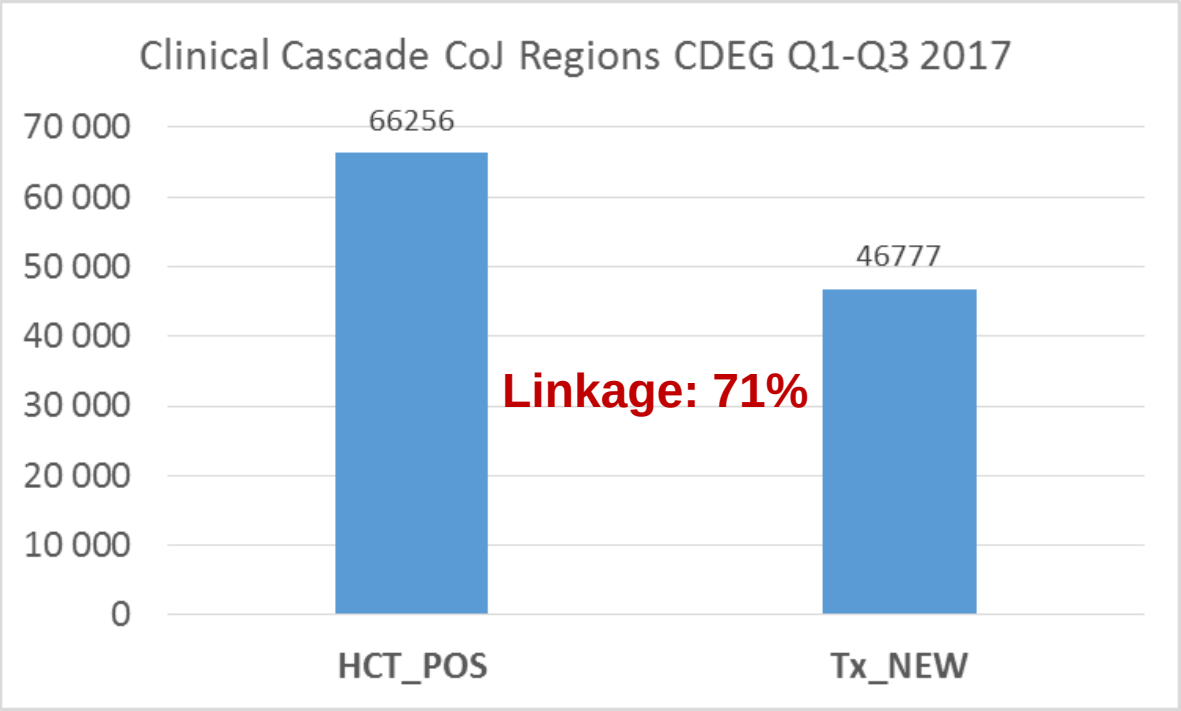
Objective

- To determine to what extent data factors contribute to the linkage gap



Data challenges:

- Addressing duplicate capturing would reduce the HCT_POS number but increase linkage
- Linking data between facilities would increase the number linked to care

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Support approach

- TIER.Net PreART module was piloted in JHB sub-district D from late 2016
- Individuals with positive HIV tests were captured
  - Period October 2015 – February 2017
  - DoH and Anova data staff
- This allows us to follow an individual's
  - HIV testing behaviour if HIV-positive
  - Link between HIV testing and ART initiation across time and place

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Data source and definitions

- Sub-district TIER.net export of patient data was used to analyse linkage to care:
  - Adequately linked and on ART
  - Truly unlinked, i.e. not initiated on ART
  - Data quality issues (e.g. duplicate capturing in same facility)
  - Data linkage issues (e.g. captured in different facilities- either HIV testing or initiation or both)

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Summary of process

- A proof-of-concept analysis linking preART and ART data was undertaken in early 2017 for 7 facilities in sub-district D export (Oct 2015 – Feb 2017)
- Duplicate entries: people with the same surname, first name and date of birth
- Data cleaning, validation and analysis done in STATA

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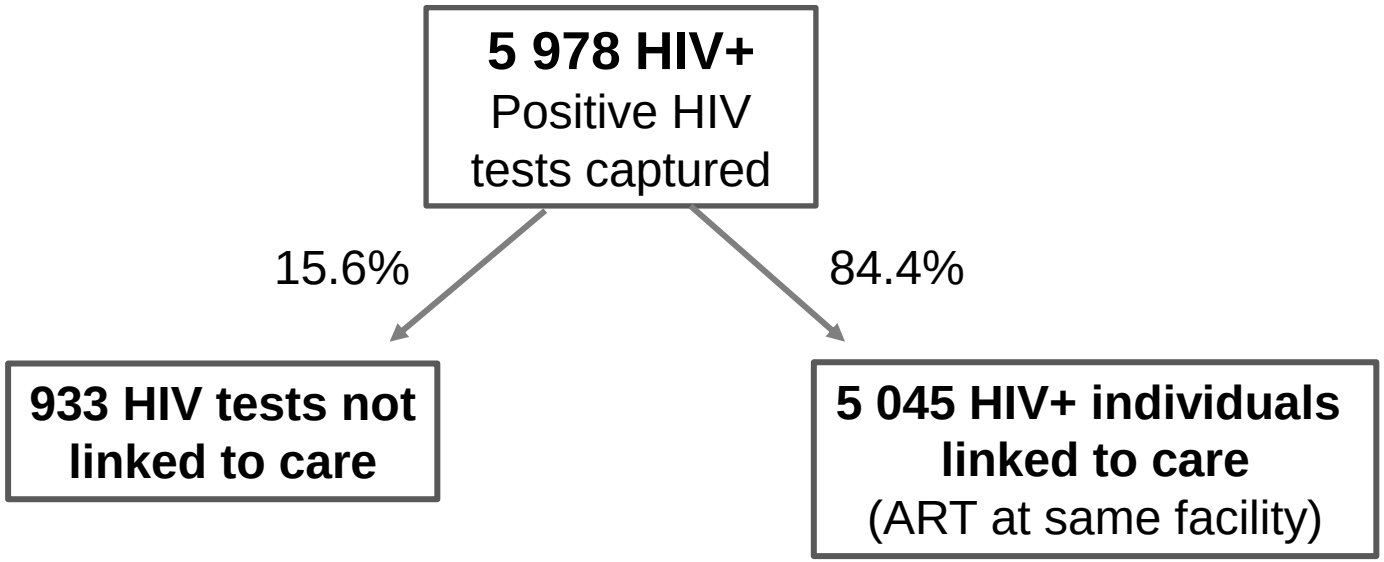
Results – Summary



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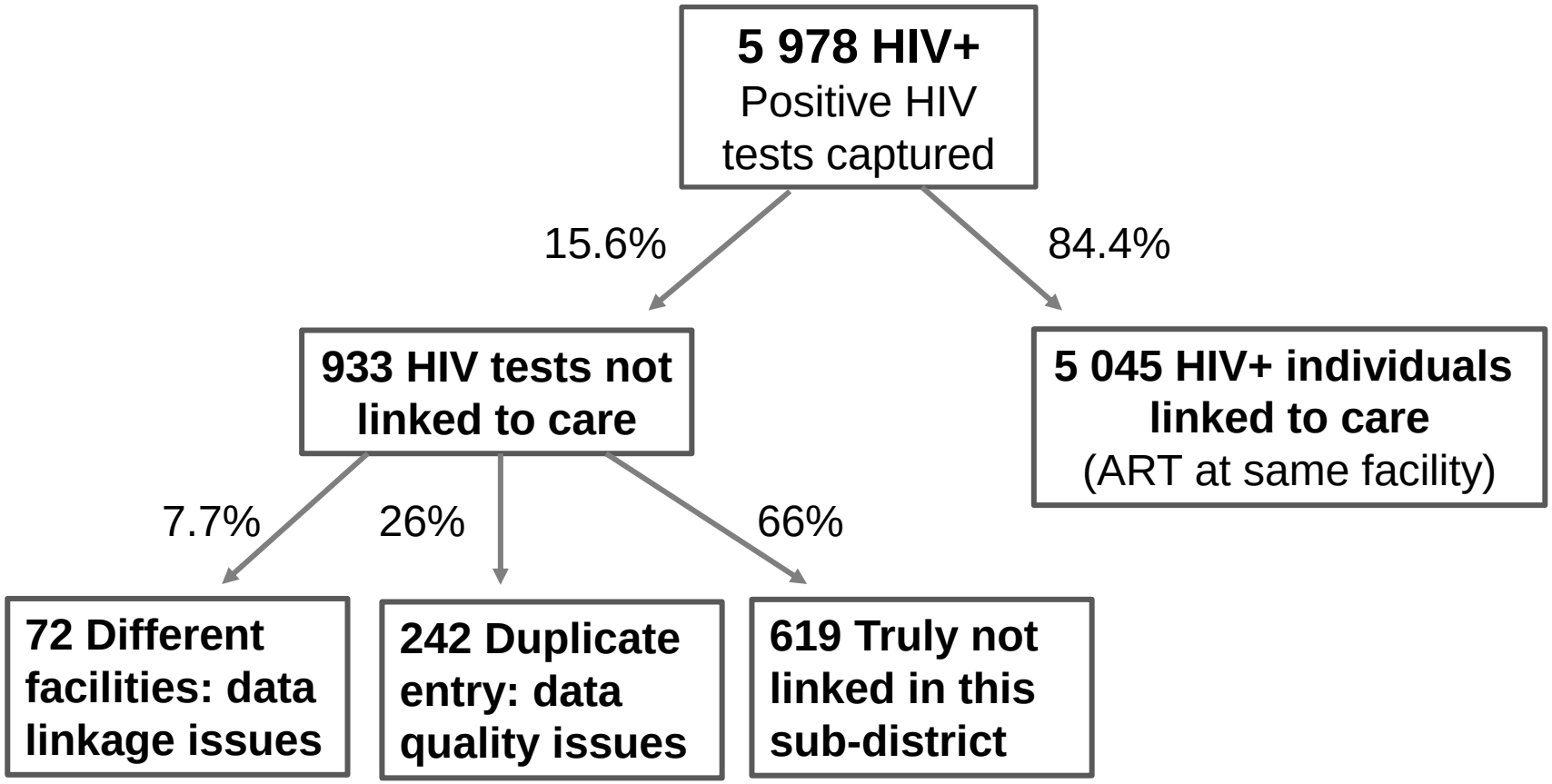
Results – Summary



NB. Data structure
28 with HIV test at multiple facilities
44 with ART at other facility than HIV test

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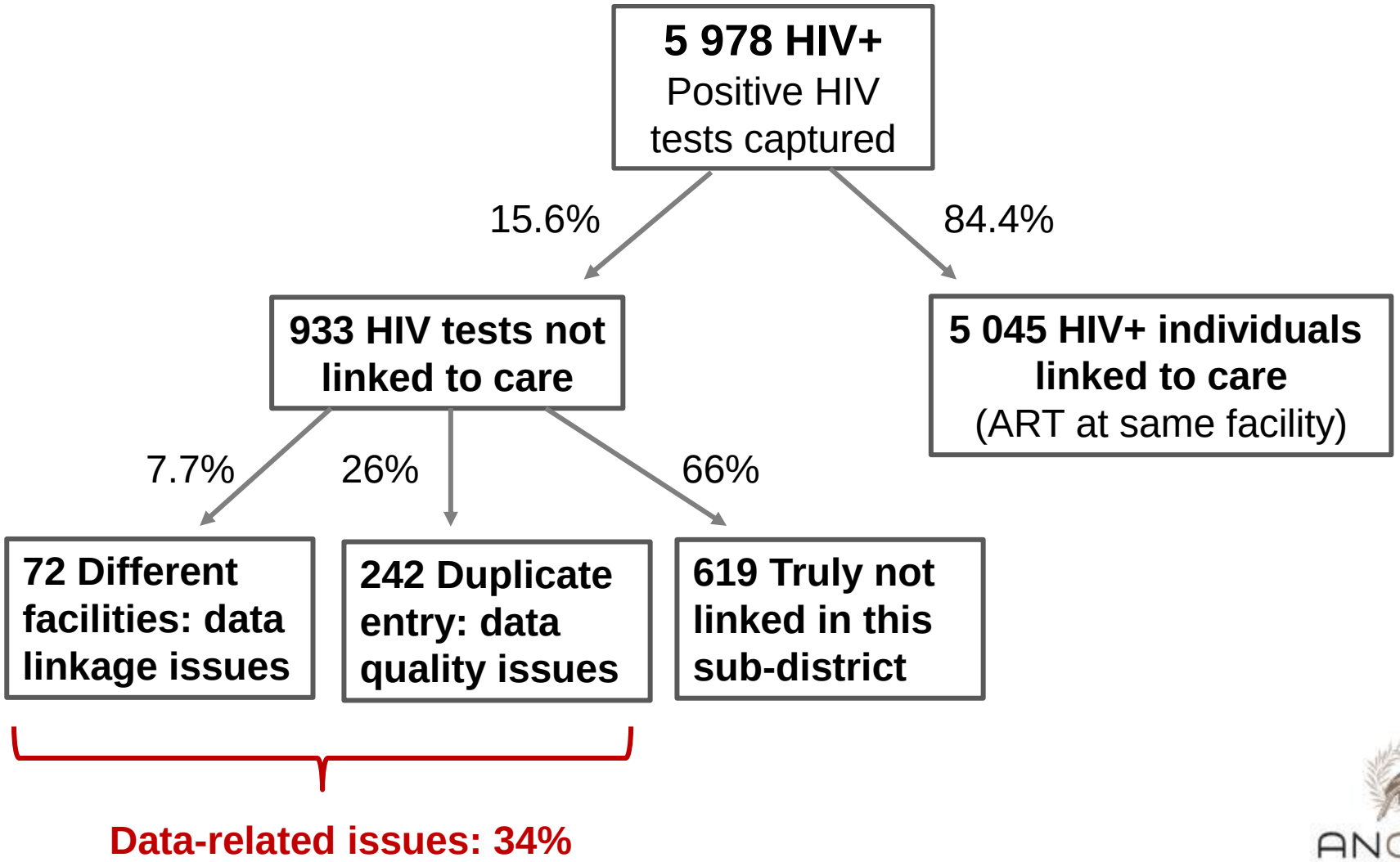
Results – Summary



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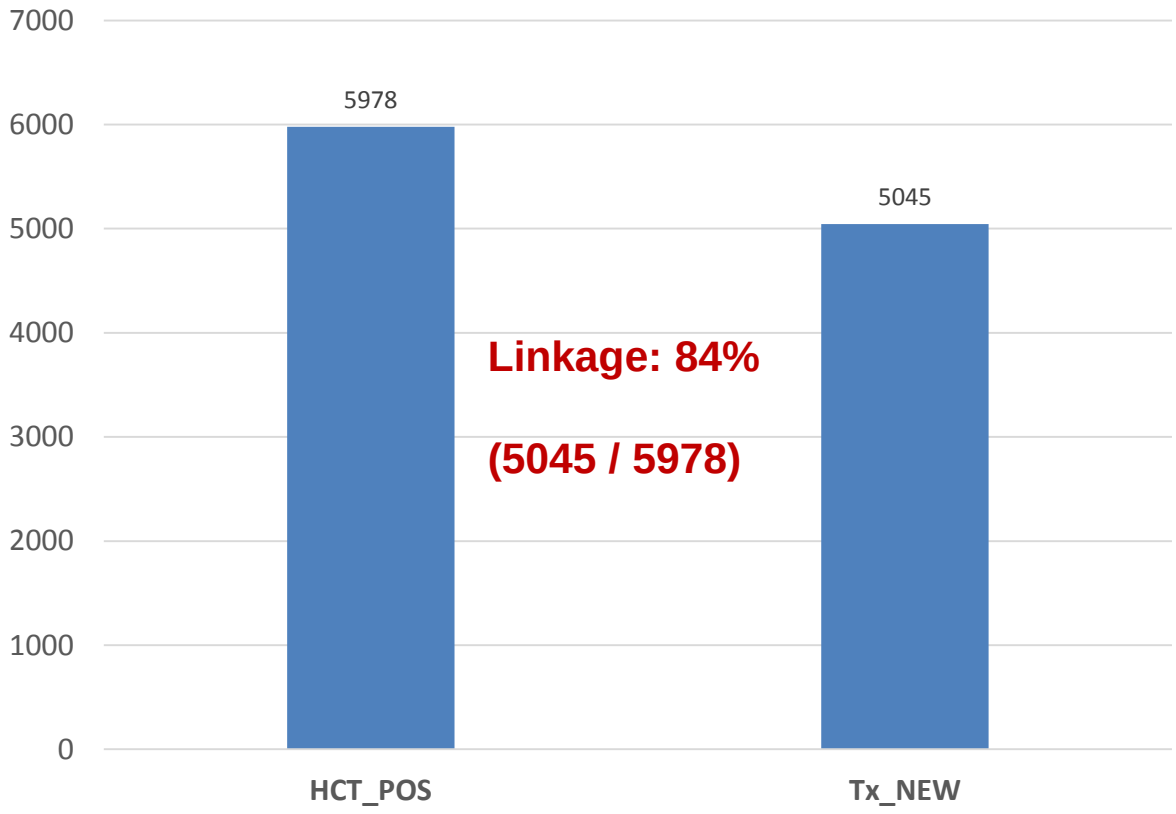
Results – Impact on cascade

- Linkage without intervention: 84%



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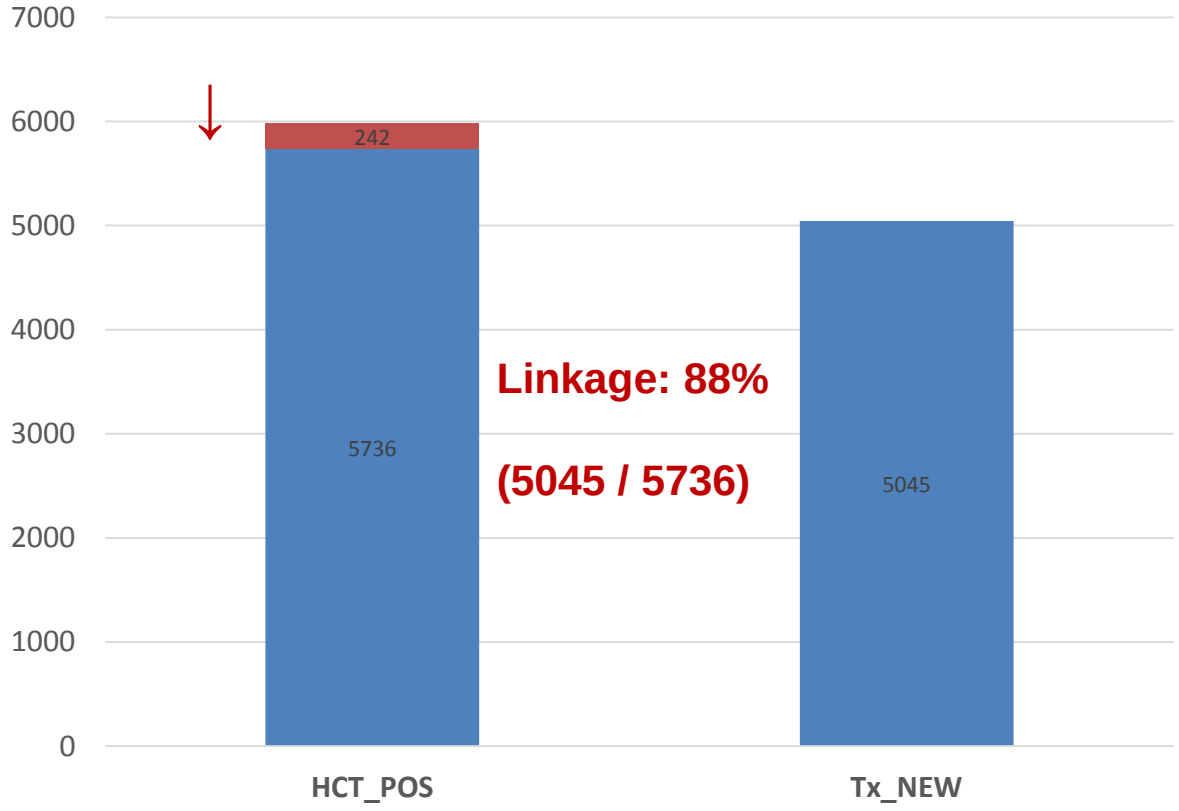
Results – Impact on cascade

- Linkage after data quality improvement: 88%



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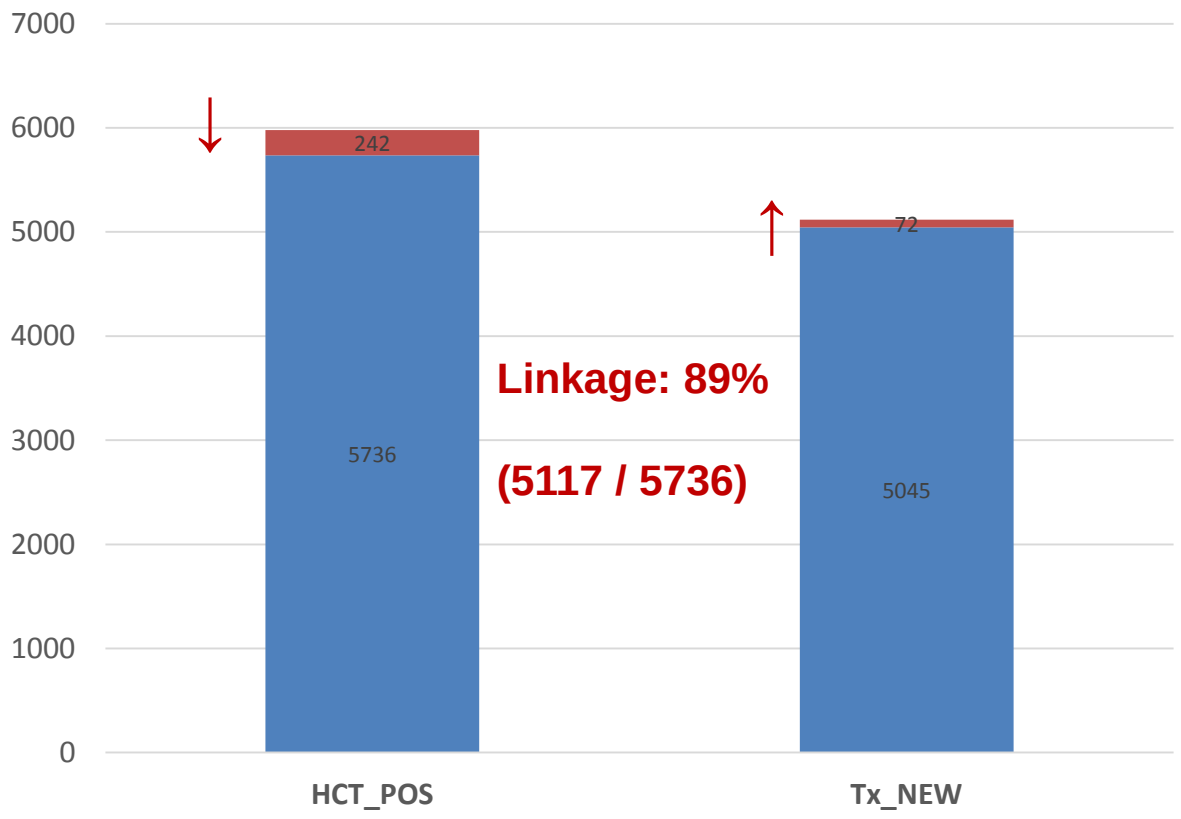
Results – Impact on cascade

- Linkage after linking data systems: 89%



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Key lessons learnt

- PreART module in TIER.net can successfully be used to gain insight into linkage gap
- One-third of the gap between HCT_POS and TX_NEW could be attributed to data issues: data quality and within data system linkage
- If data issues addressed, linkage would go up from 84% to 89% in this region

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Limitations

- Selected number of facilities in sub-district D (But entire Sub-district Tier export used to track initiations)
- Matching process based on name and date of birth is suboptimal: this highlights the importance of having a unique identifier in TIER.net

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Conclusion & Recommendation

- PreART module can be a valuable asset in linking individuals to care
- A dual approach is required to close linkage gap:
  - Target/trace individuals not yet linked to ART as identified through preART module
  - Address data quality and system issues on a regular basis

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