

TasP Statistical Report

prepared by Joseph Larmarange and Jaco Dreyer

23 May 2018 - phase 2 datasets version 12.1.0

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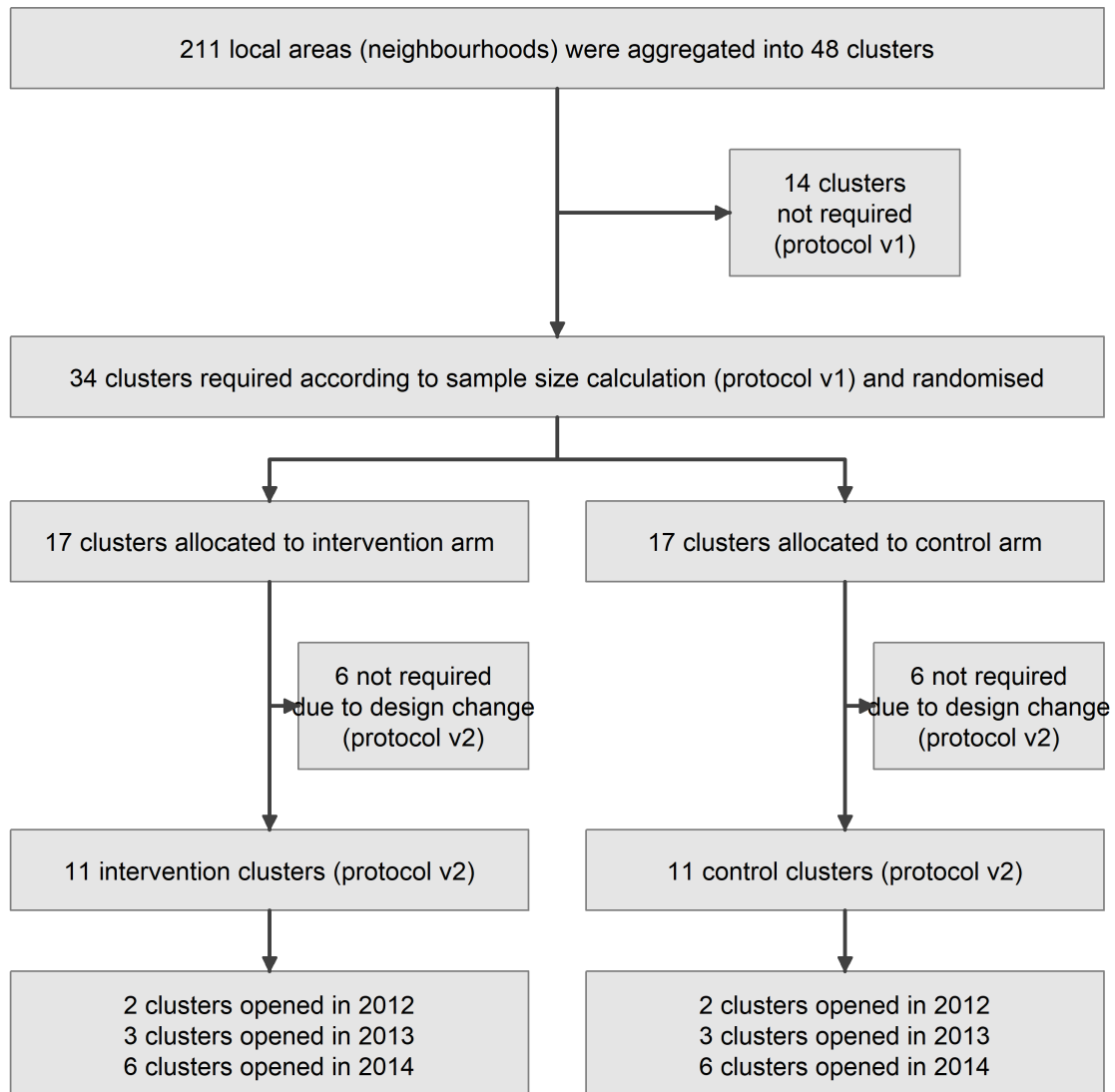
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Notes:

- Each indicator is defined in *TasP Definitions* document.

1 Trial clusters



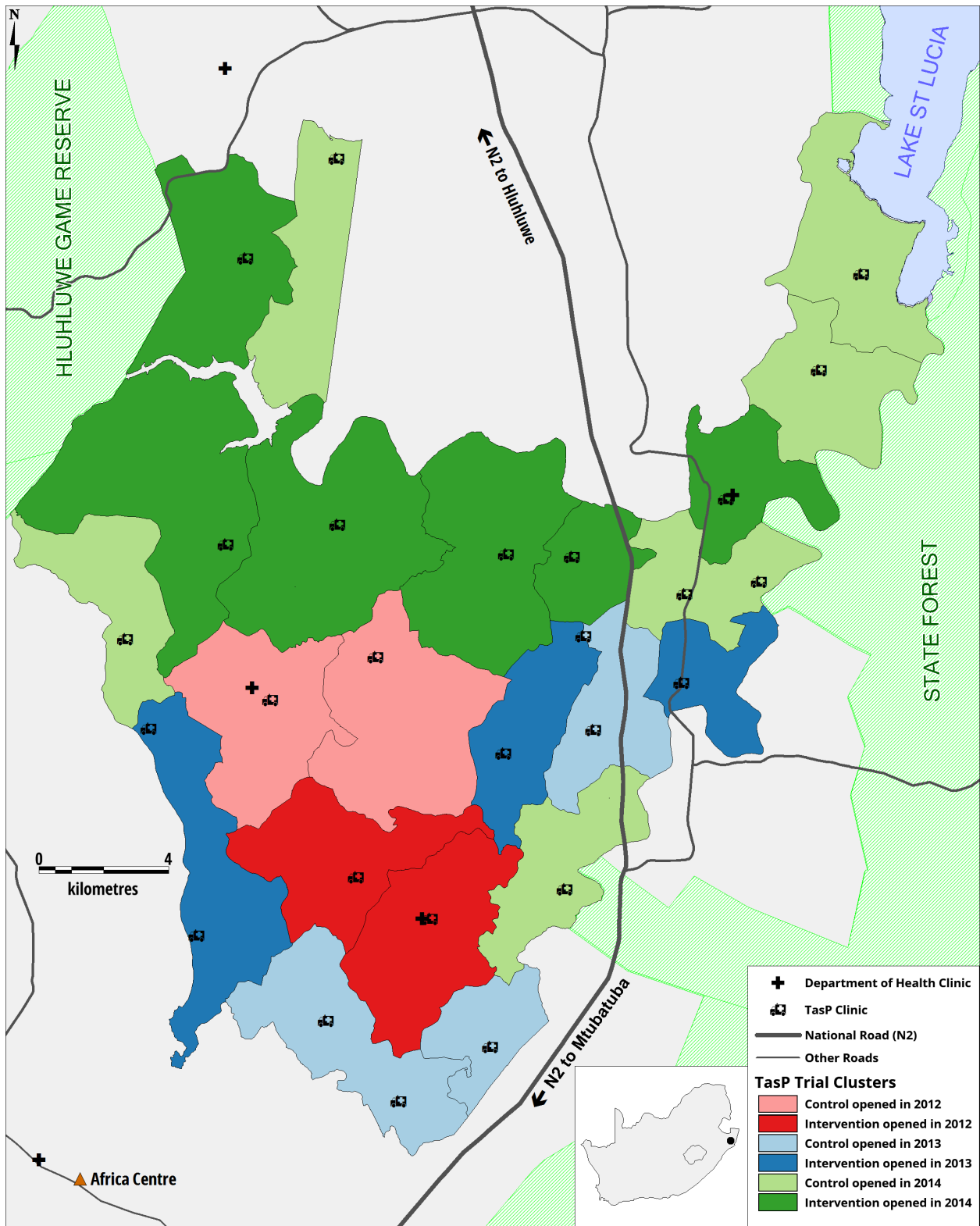
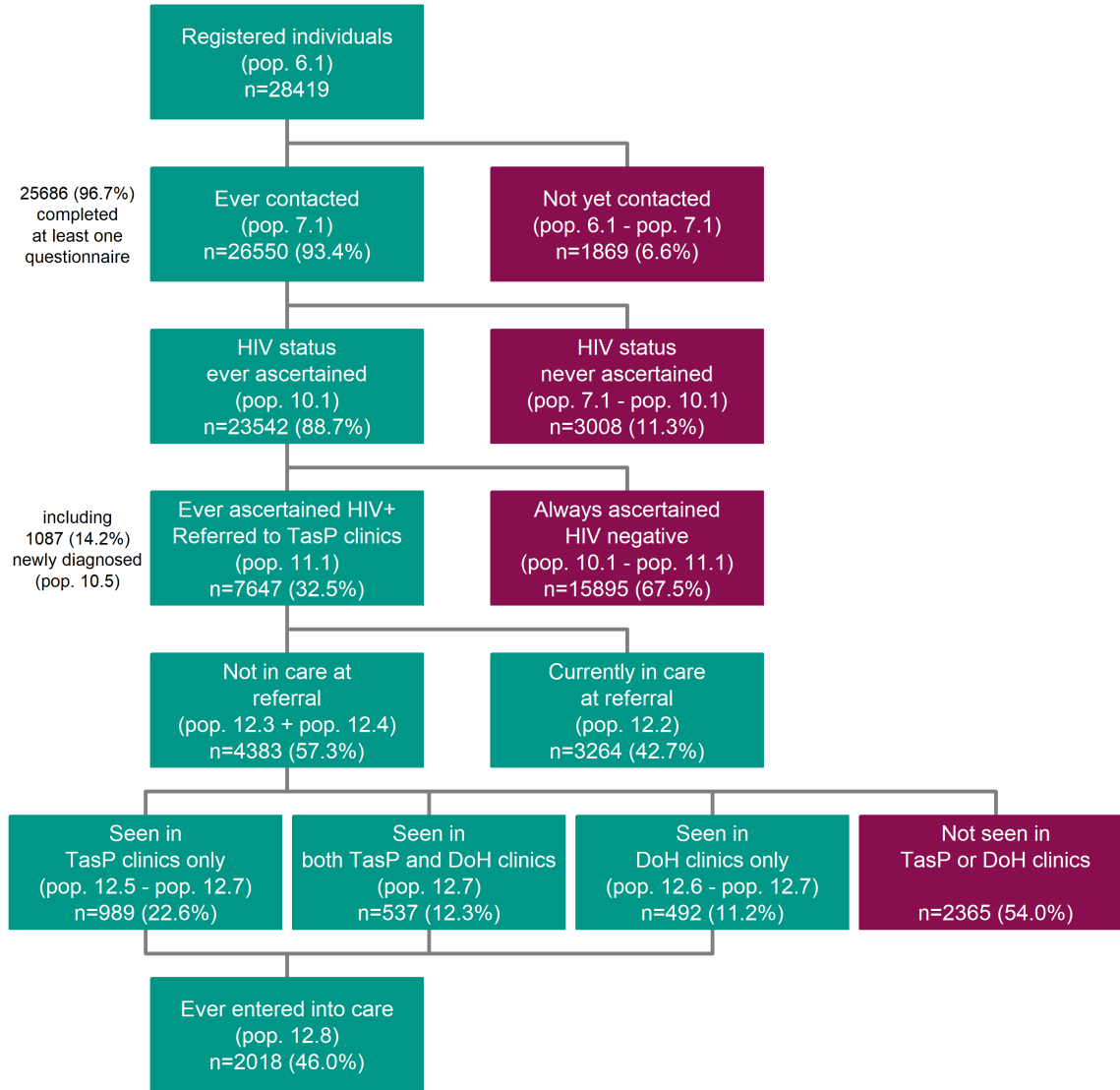


Figure 1: Map of trial clusters

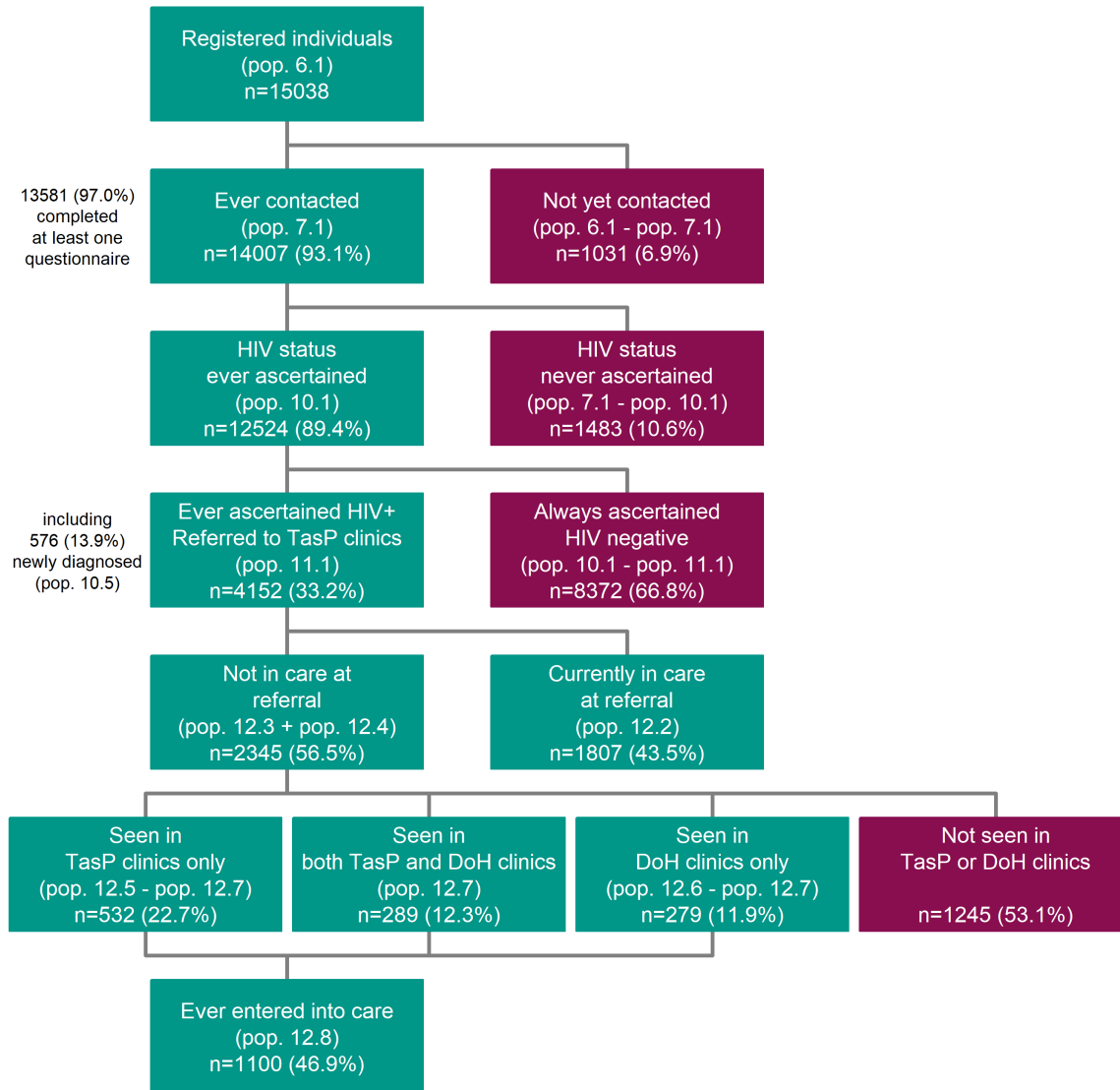
2 Global flowchart

2.1 Overall



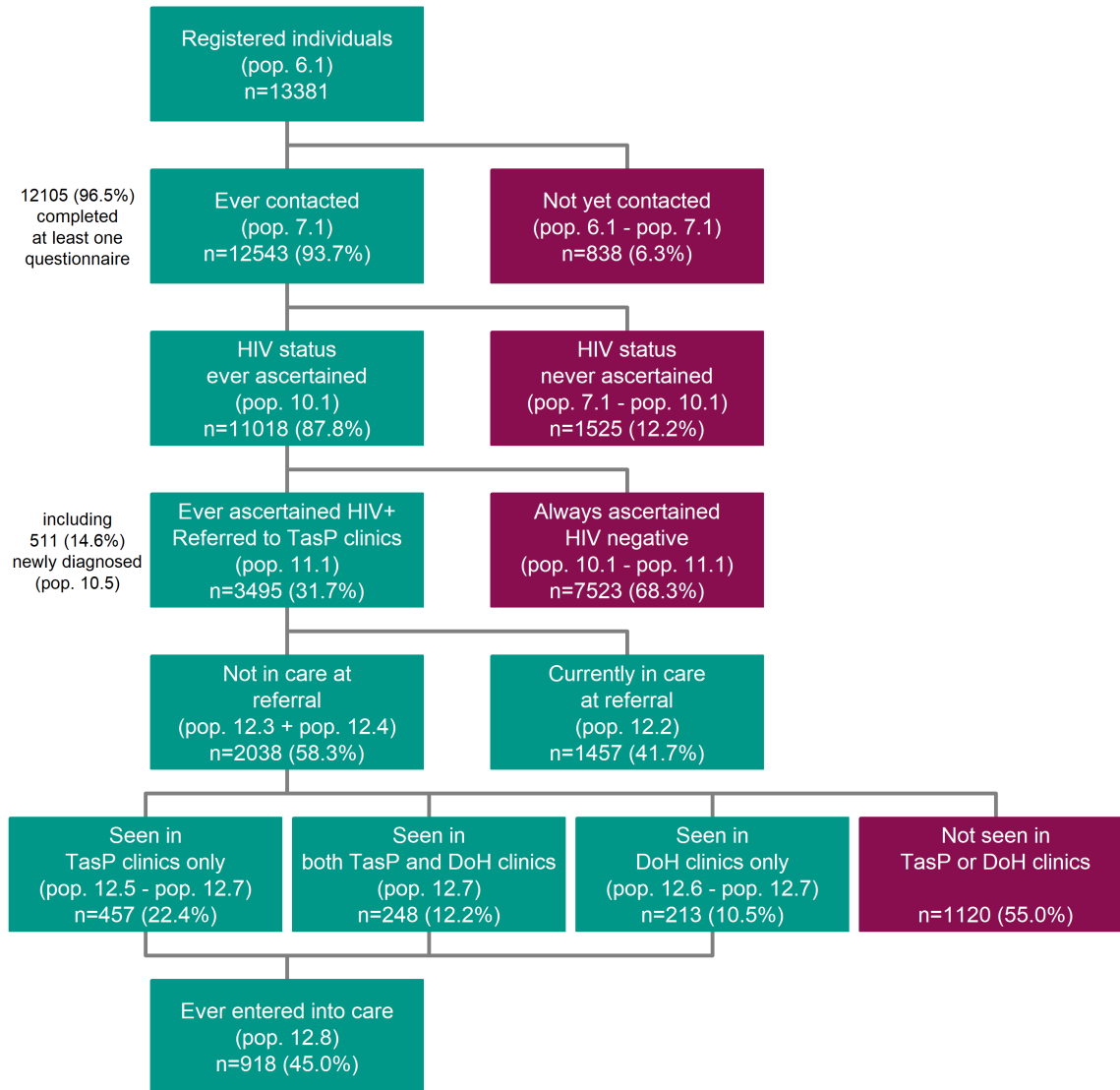
Note: this flowchart is not appropriate to estimate linkage to care as all referred individuals are taken into account, regardless of the date they have been referred. Therefore, it includes some individuals who have been referred only few weeks before the database was frozen and individuals who exited just after having been referred. For more accurate indicators, please see the *engagement with care* section.

2.2 Control clusters



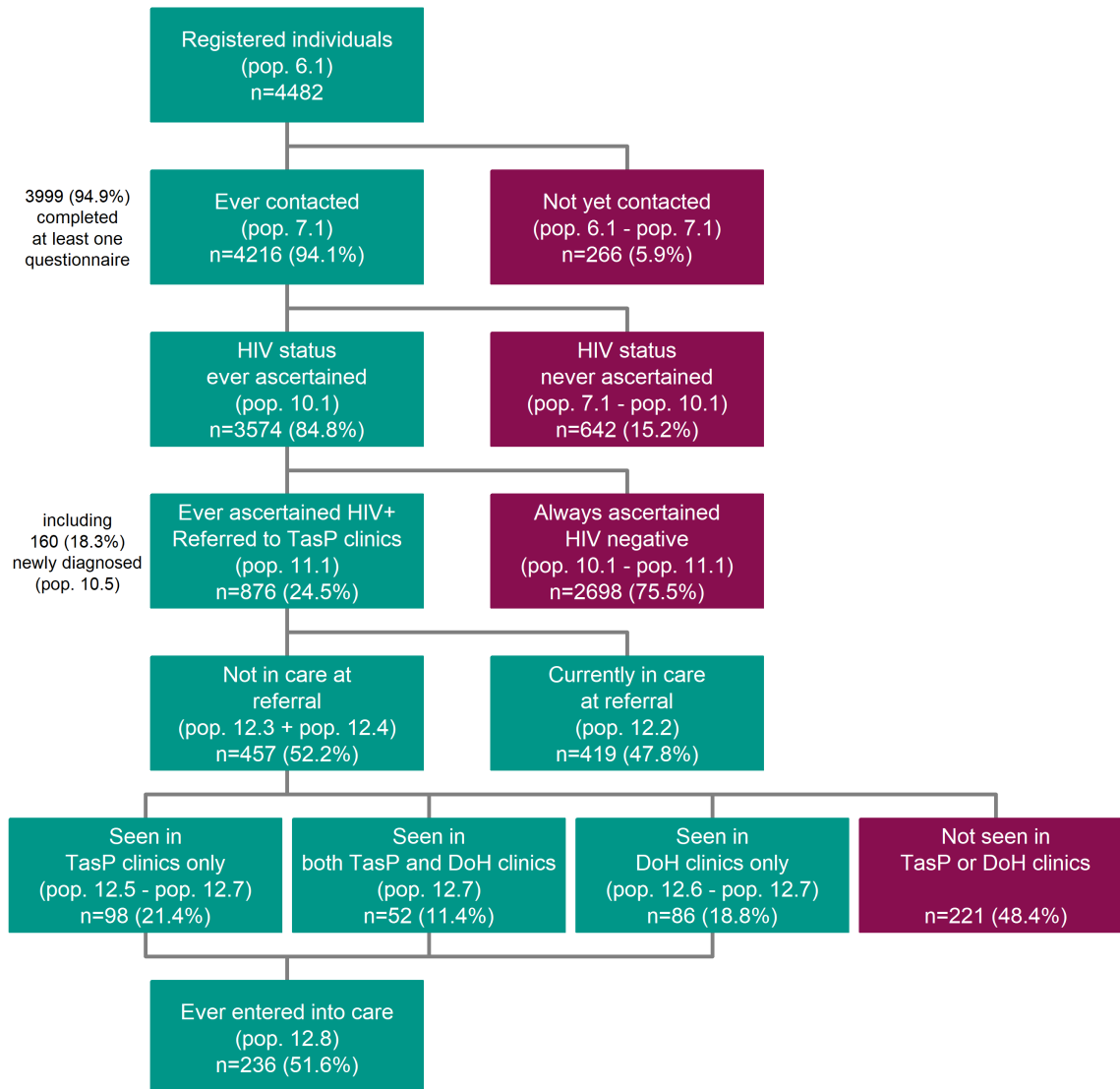
Note: due to internal migration, 37 individual(s) moved from a control cluster to an intervention cluster. We used here the type of cluster at registration.

2.3 Intervention clusters

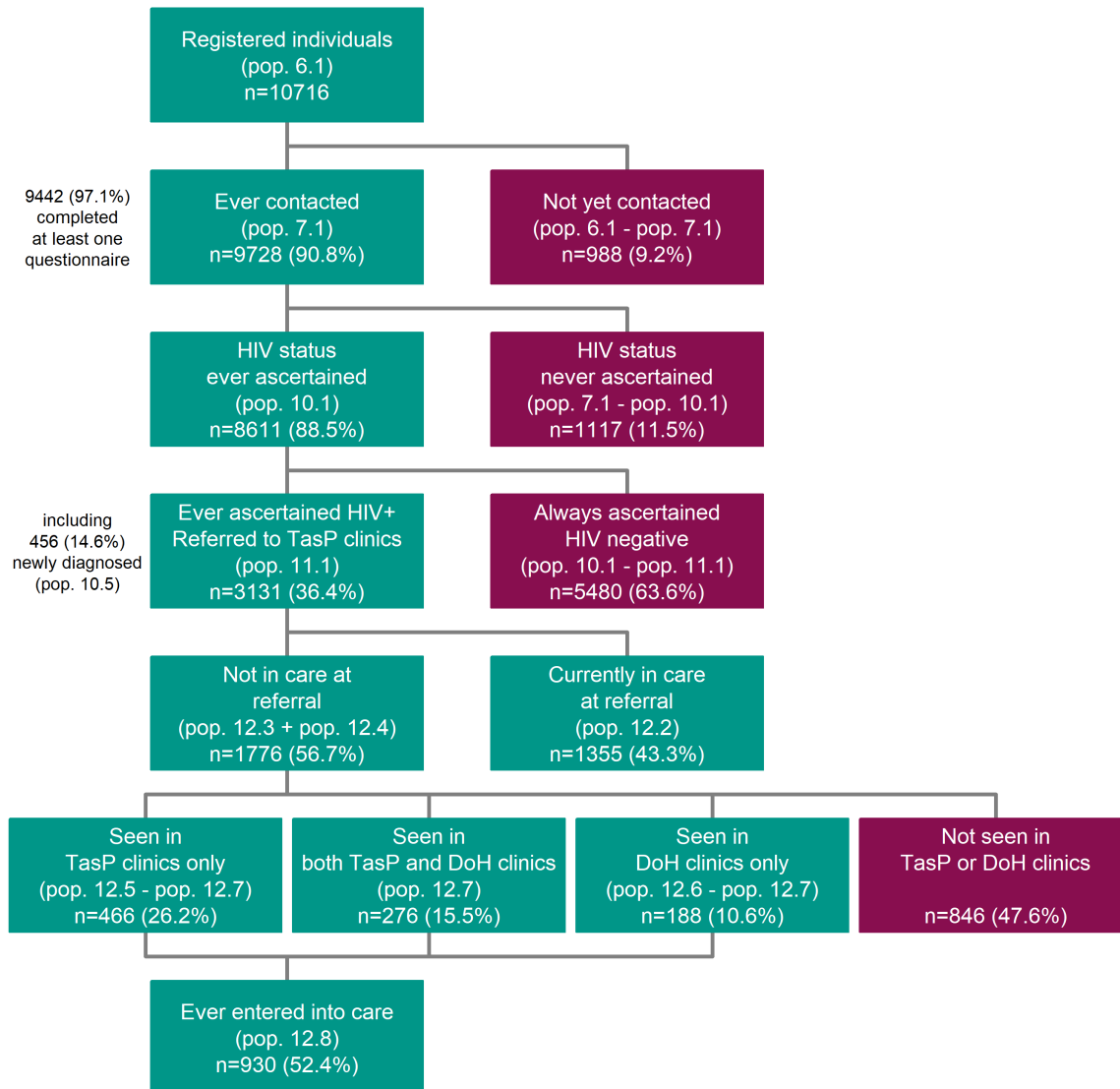


Note: due to internal migration, 25 individual(s) moved from an intervention cluster to a control cluster. We used here the type of cluster at registration.

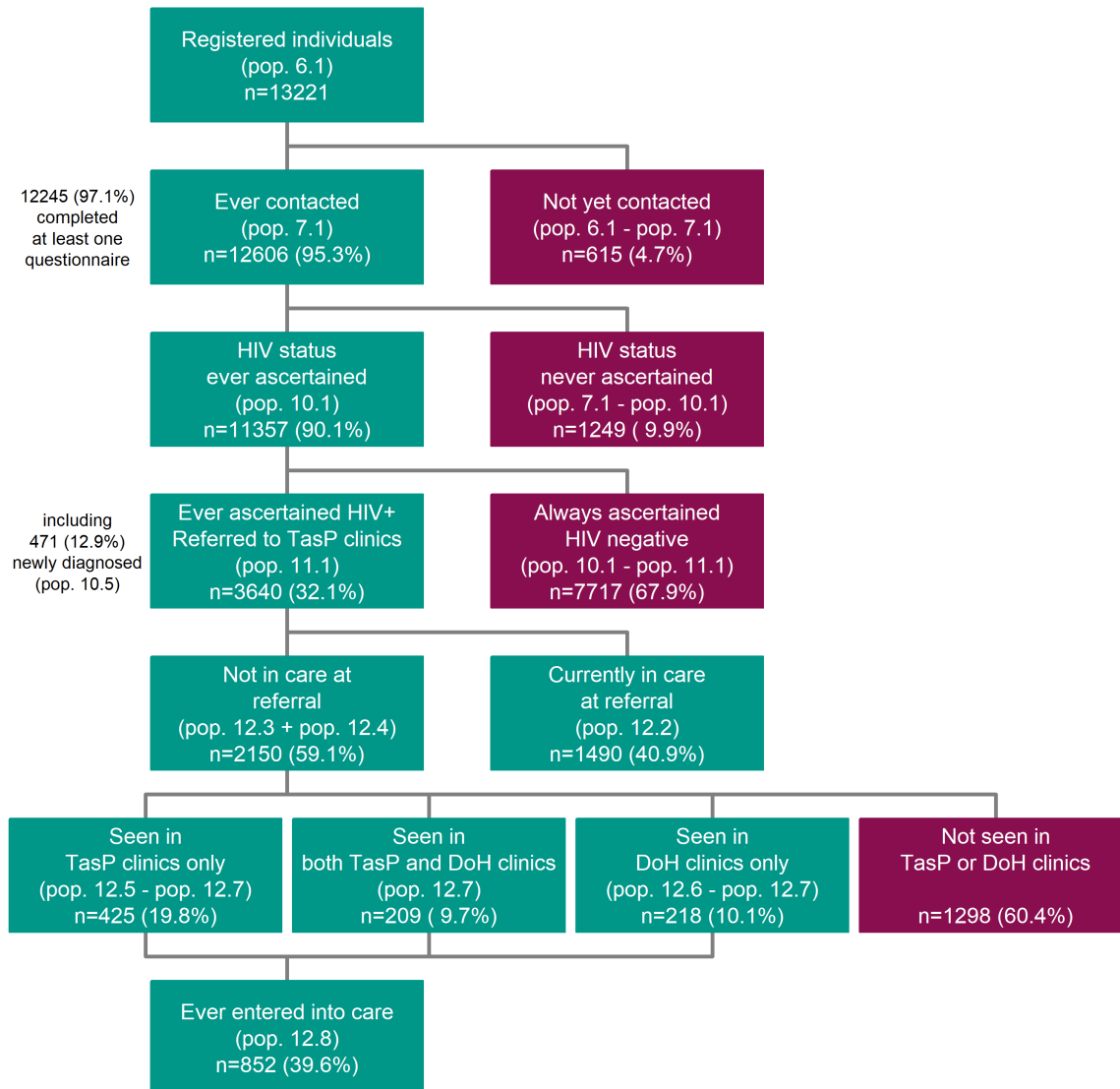
2.4 Group 1 clusters (opened in 2012)



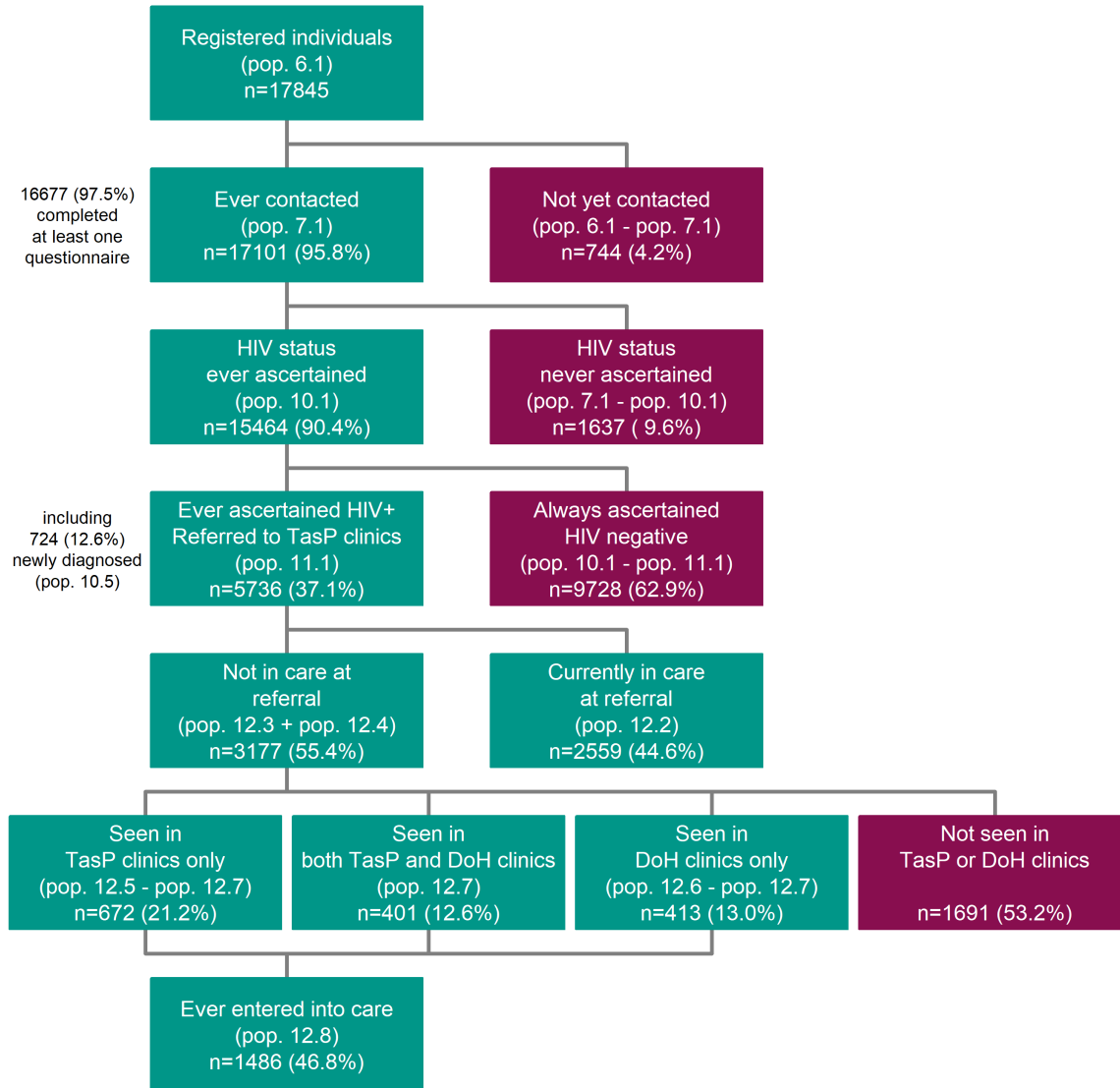
2.5 Group 2 clusters (opened in 2013)



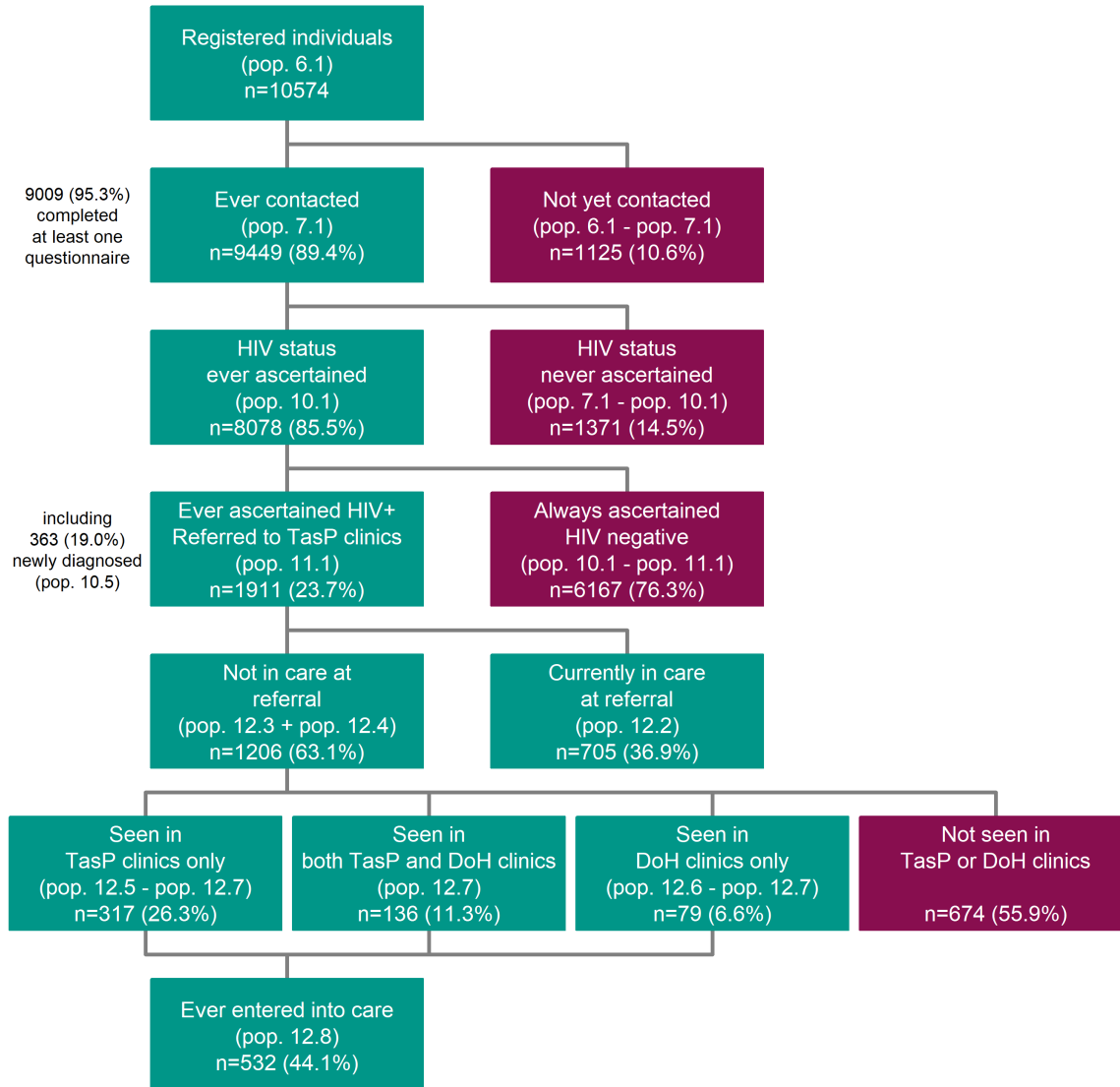
2.6 Group 3 clusters (opened in 2014)



2.7 Among women



2.8 Among men



3 Contact

3.1 Overall contact rate

The global flowchart presents the proportion of individuals ever contacted (93.4%), i.e. registered individuals contacted at least once (ind. 7.2).

3.2 Contact rate per round

Contact rates can also be calculated for each data collection cycle (ind. 7.4).

- At data collection cycle 1: 82.5%

- At data collection cycle 2: 66.5%
- At data collection cycle 3: 63.1%
- At data collection cycle 4: 73.8%
- At data collection cycle 5: 79.8%
- At data collection cycle 6: 84.6%
- At data collection cycle 7: 85.2%

Overall contact rate per round (merging all data collection cycles):
77.4% [95% CI: 77.1%-77.6%]

Overall contact rate per round and per arm:

- Control clusters: 77.8% [95% CI: 77.4%-78.1%]
- Intervention clusters: 76.9% [95% CI: 76.5%-77.3%]

Overall contact rate per round and per cluster group:

- Group 1 clusters: 73.5% [95% CI: 72.9%-74.1%]
- Group 2 clusters: 72.6% [95% CI: 72.2%-73.0%]
- Group 3 clusters: 84.5% [95% CI: 84.1%-84.8%]

4 HIV ascertainment & HIV testing

The HIV status of an individual is considered *ascertained* if a rapid test was performed (with a valid result) or if she/he said to the fieldworkers that he already knew being HIV positive.

4.1 HIV ascertainment uptake (ever HIV ascertained)

The global flow chart presents the proportion of ever contacted individuals whose status has been ever ascertained (88.7%), i.e. ascertained at least once (ind. 10.2).

4.2 HIV ascertainment uptake per round

HIV ascertainment uptake can also be calculated for each data collection cycle (ind. 10.3).

- At data collection cycle 1: 74.0%
- At data collection cycle 2: 76.3%
- At data collection cycle 3: 79.7%
- At data collection cycle 4: 83.8%
- At data collection cycle 5: 84.4%
- At data collection cycle 6: 79.2%
- At data collection cycle 7: 76.3%

Overall HIV ascertainment uptake per round (merging all data collection cycles):
80.3% [95% CI: 80.0%-80.5%]

Overall HIV ascertainment uptake per round and per arm:

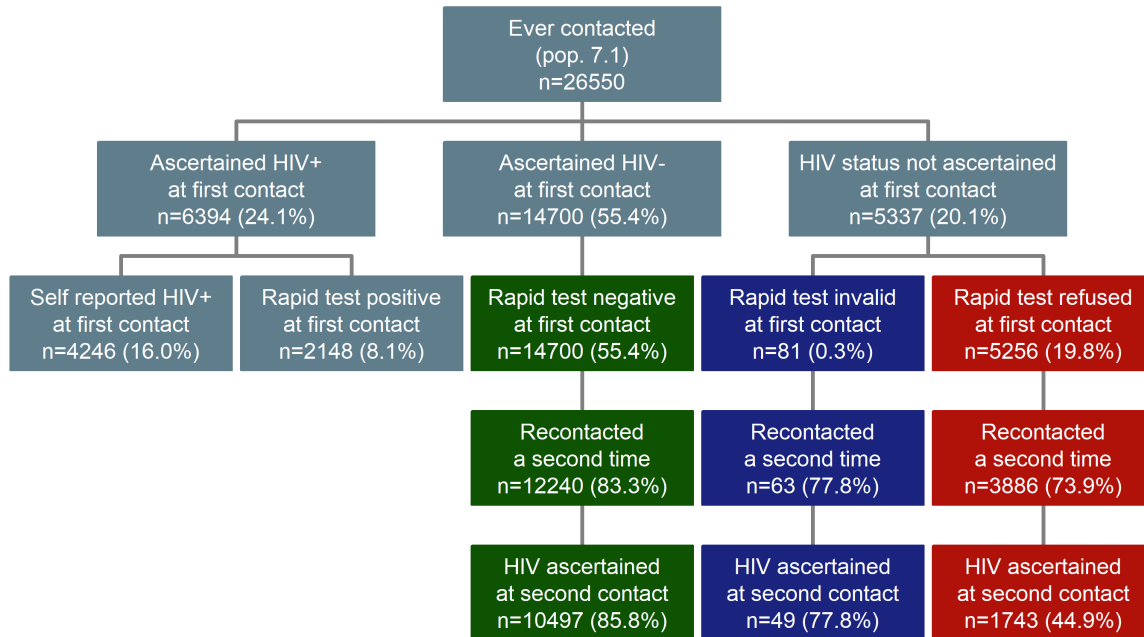
- Control clusters: 81.1% [95% CI: 80.7%-81.5%]
- Intervention clusters: 79.3% [95% CI: 78.9%-79.7%]

Overall HIV ascertainment uptake per round and per cluster group:

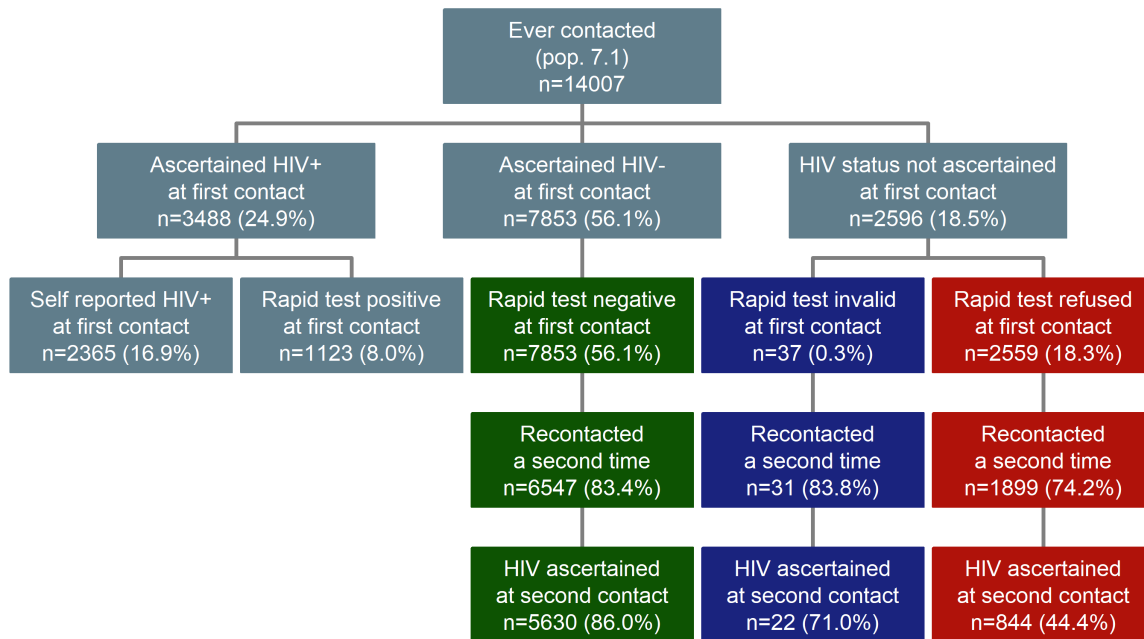
- Group 1 clusters: 75.1% [95% CI: 74.4%-75.7%]
- Group 2 clusters: 81.0% [95% CI: 80.6%-81.5%]
- Group 3 clusters: 81.9% [95% CI: 81.5%-82.3%]

4.3 Repeat HIV ascertainment

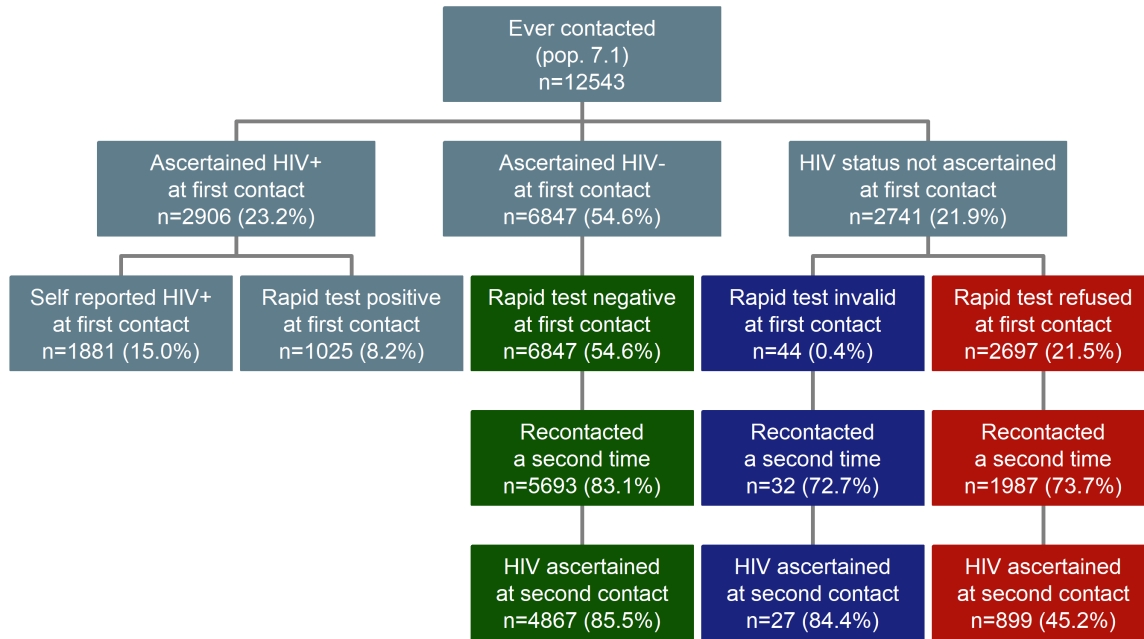
4.3.1 Overall



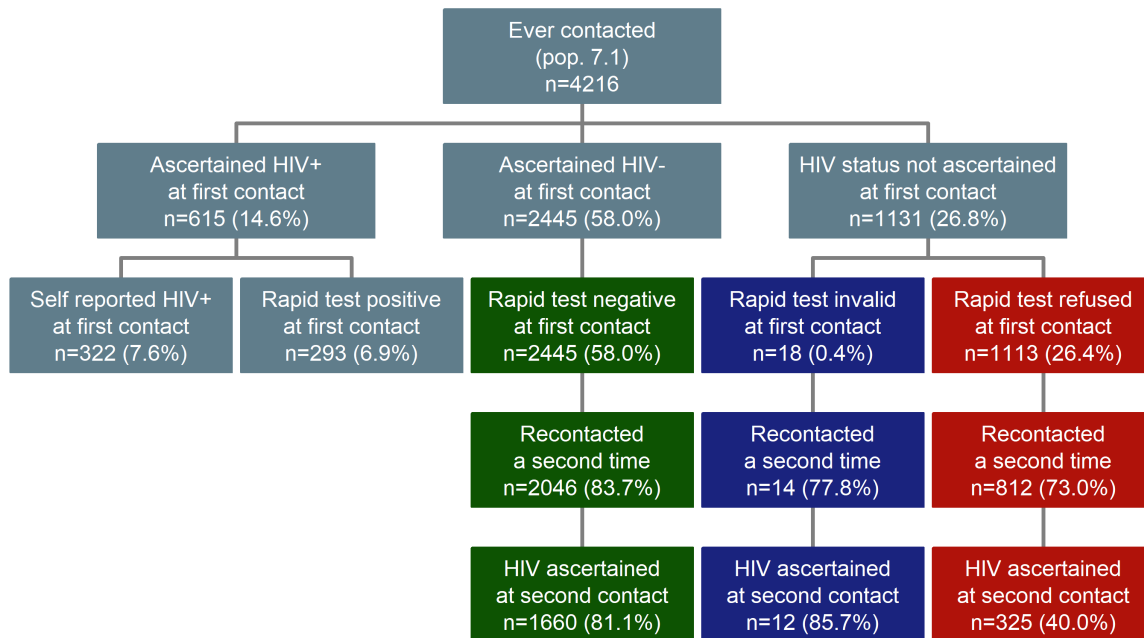
4.3.2 Control clusters



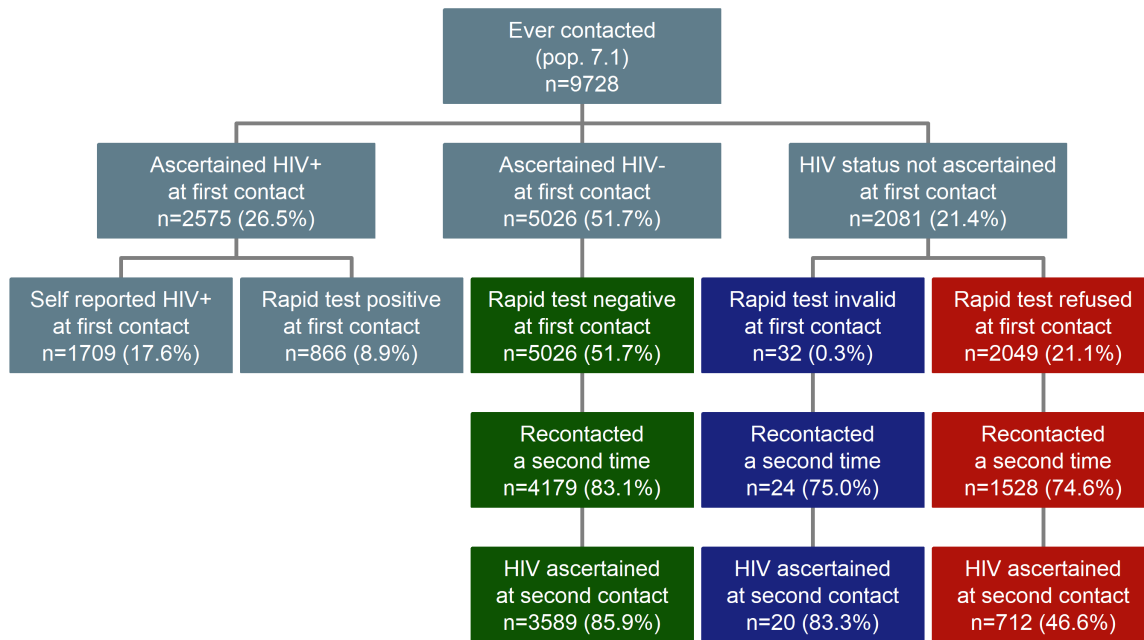
4.3.3 Intervention clusters



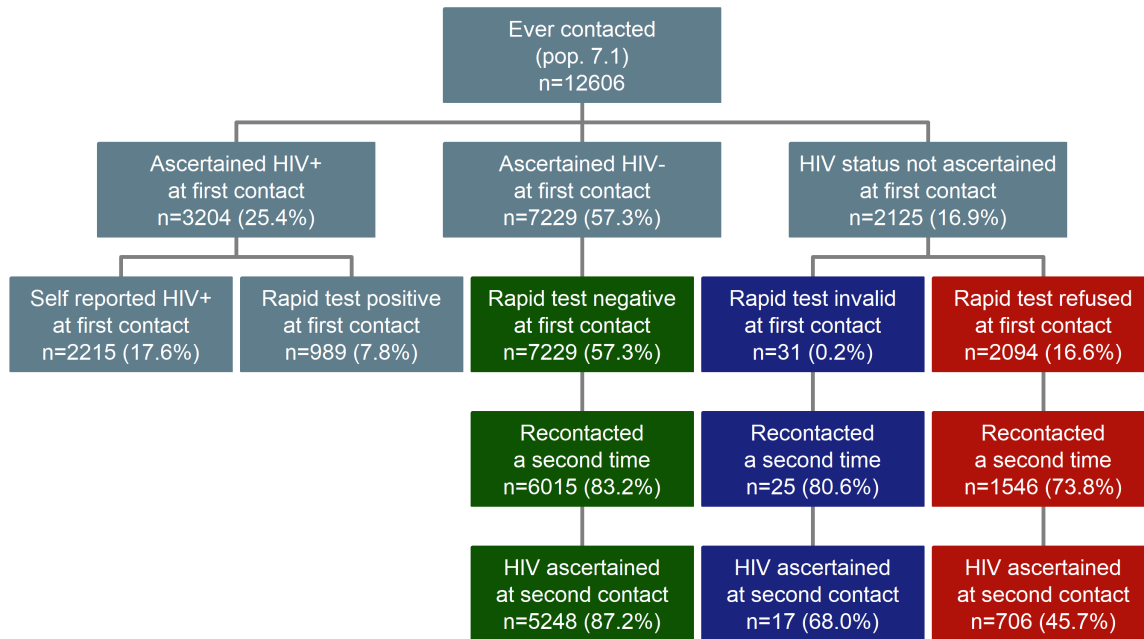
4.3.4 Group 1 clusters (opened in 2012)



4.3.5 Group 2 clusters (opened in 2013)



4.3.6 Group 3 clusters (opened in 2014)



5 Linkage to TasP clinics

This indicator (ind. 12.12) is calculated among all individuals ever referred to HIV care, including individuals currently in care at time of referral (pop. 12.2) and individuals not in care at time of referral (pop. 12.3 and pop. 12.4). It measures entry into care in TasP clinics only **within X months** after referral (positive HIV ascertainment), i.e.:

- *transfers into TasP care* for individuals already in care at referral, ;
- *novel entries into care* for individuals not in care at referral.

End date of data collection and trial exits have been taken into account to exclude individuals not observed 3, 6, 9 or 12 months respectively.

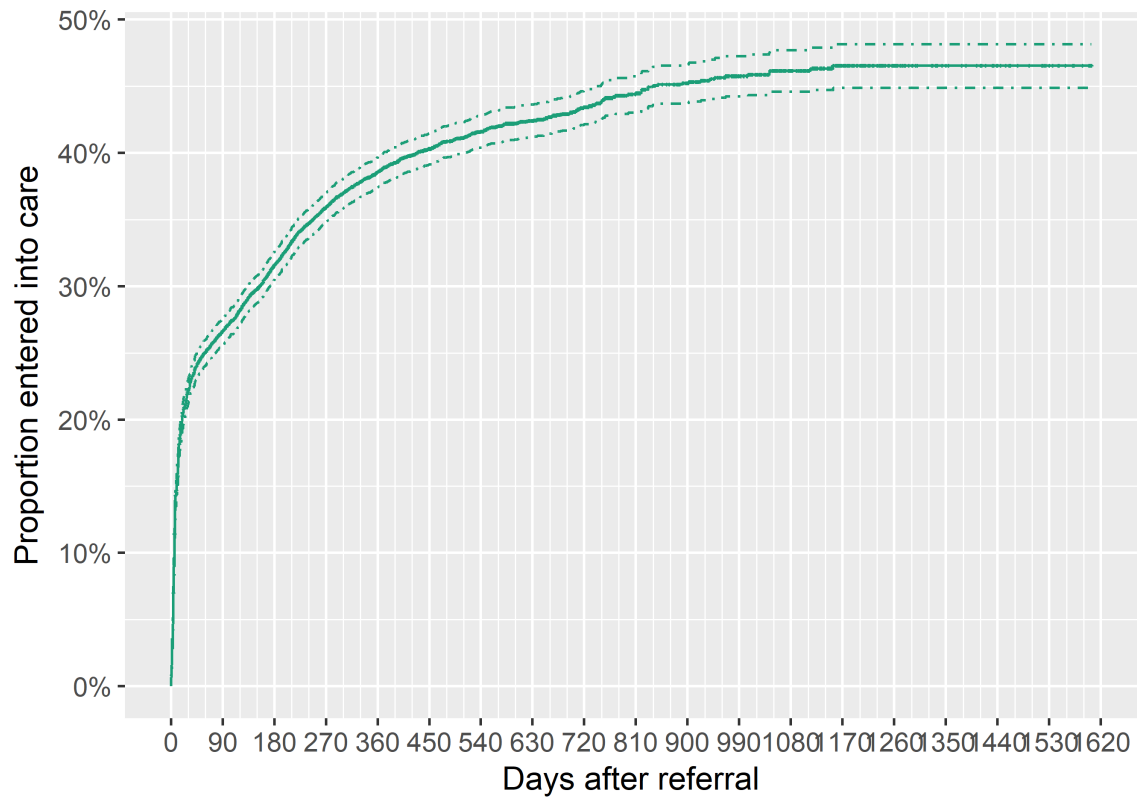
Table 1: Linkage to TasP clinics per arm

	n/N	%	95% CI
Control clusters			
within 3 months (91 days)	1107/3992	27.7%	26.4-29.1
within 6 months (183 days)	1241/3641	34.1%	32.6-35.6
within 9 months (274 days)	1298/3348	38.8%	37.1-40.4
within 12 months (365 days)	1274/3012	42.3%	40.5-44.1
Intervention clusters			
within 3 months (91 days)	863/3340	25.8%	24.4-27.4
within 6 months (183 days)	963/3031	31.8%	30.1-33.5
within 9 months (274 days)	1046/2764	37.8%	36.1-39.7
within 12 months (365 days)	1044/2489	41.9%	40.0-43.9
All clusters			
within 3 months (91 days)	1970/7332	26.9%	25.9-27.9
within 6 months (183 days)	2204/6672	33.0%	31.9-34.2
within 9 months (274 days)	2344/6112	38.4%	37.1-39.6
within 12 months (365 days)	2318/5501	42.1%	40.8-43.4

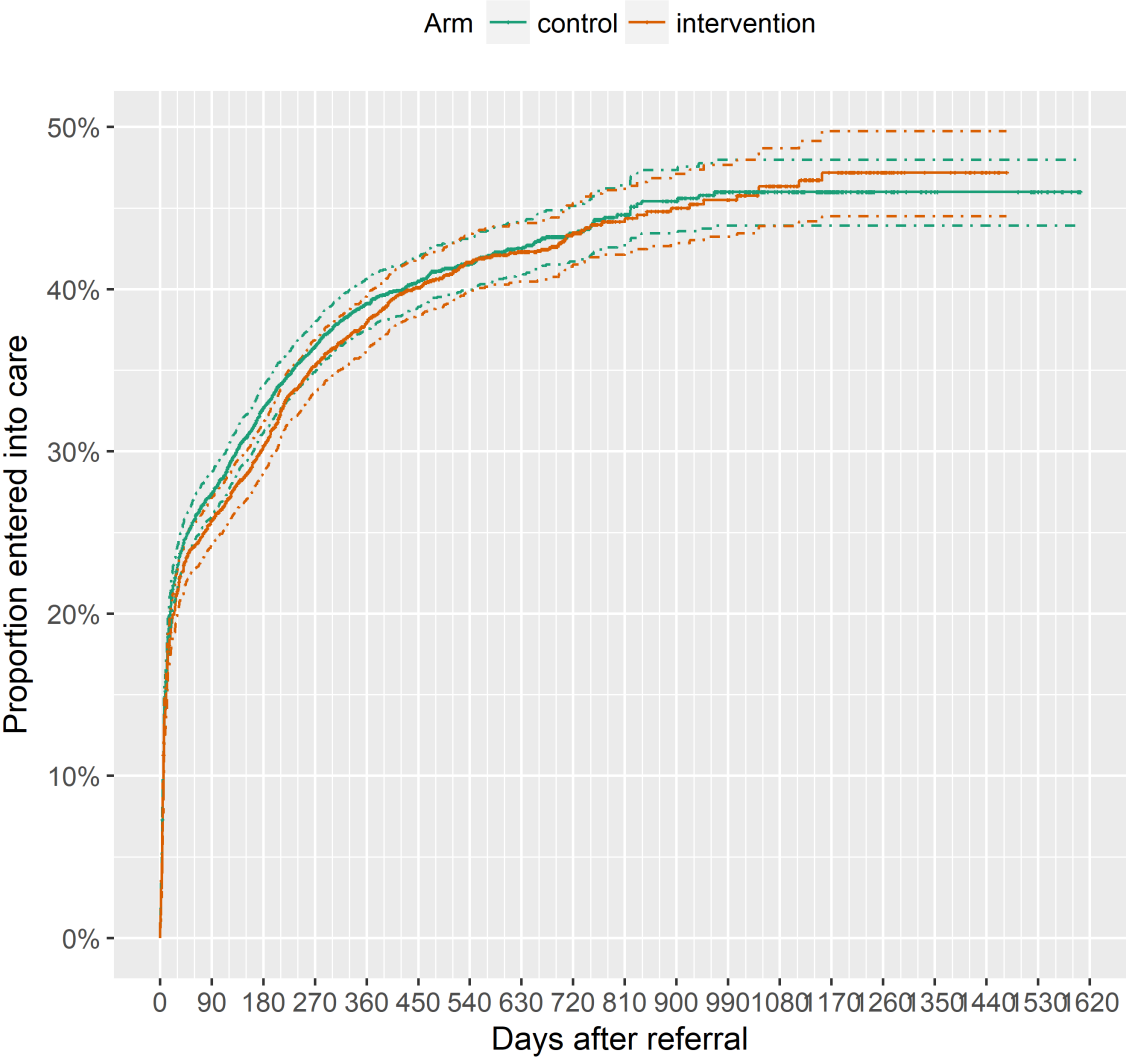
Table 2: Linkage to TasP clinics per cluster group

	n/N	%	95% CI
Group 1 clusters (opened in 2012)			
within 3 months (91 days)	251/853	29.4%	26.5-32.6
within 6 months (183 days)	269/811	33.2%	30.0-36.5
within 9 months (274 days)	264/722	36.6%	33.1-40.1
within 12 months (365 days)	258/659	39.2%	35.5-42.9
Group 2 clusters (opened in 2013)			
within 3 months (91 days)	977/3021	32.3%	30.7-34.0
within 6 months (183 days)	1115/2742	40.7%	38.8-42.5
within 9 months (274 days)	1190/2566	46.4%	44.5-48.3
within 12 months (365 days)	1185/2329	50.9%	48.8-52.9
Group 3 clusters (opened in 2014)			
within 3 months (91 days)	742/3458	21.5%	20.1-22.9
within 6 months (183 days)	820/3119	26.3%	24.8-27.9
within 9 months (274 days)	890/2824	31.5%	29.8-33.3
within 12 months (365 days)	875/2513	34.8%	33.0-36.7

Time to linkage to TasP clinics after referral

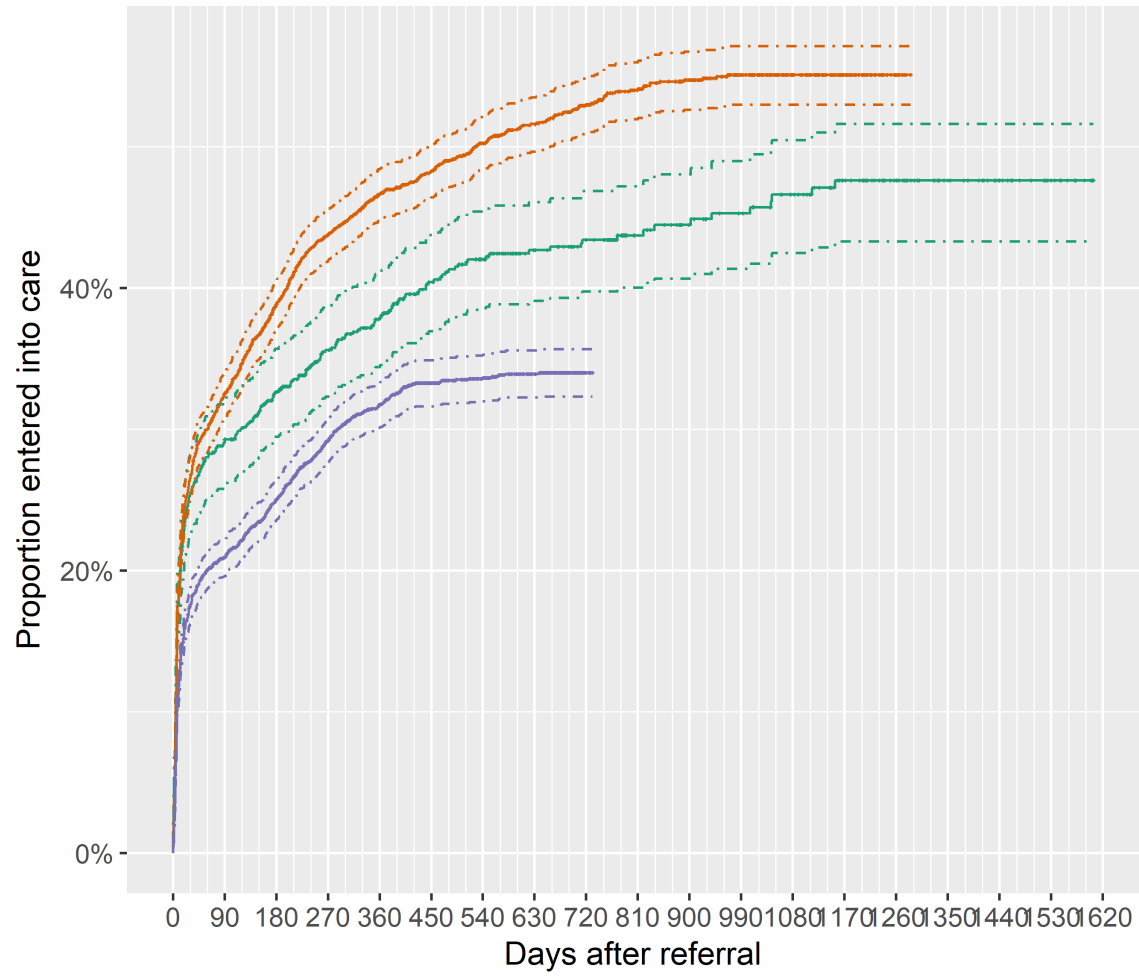


Time to linkage to TasP clinics per arm

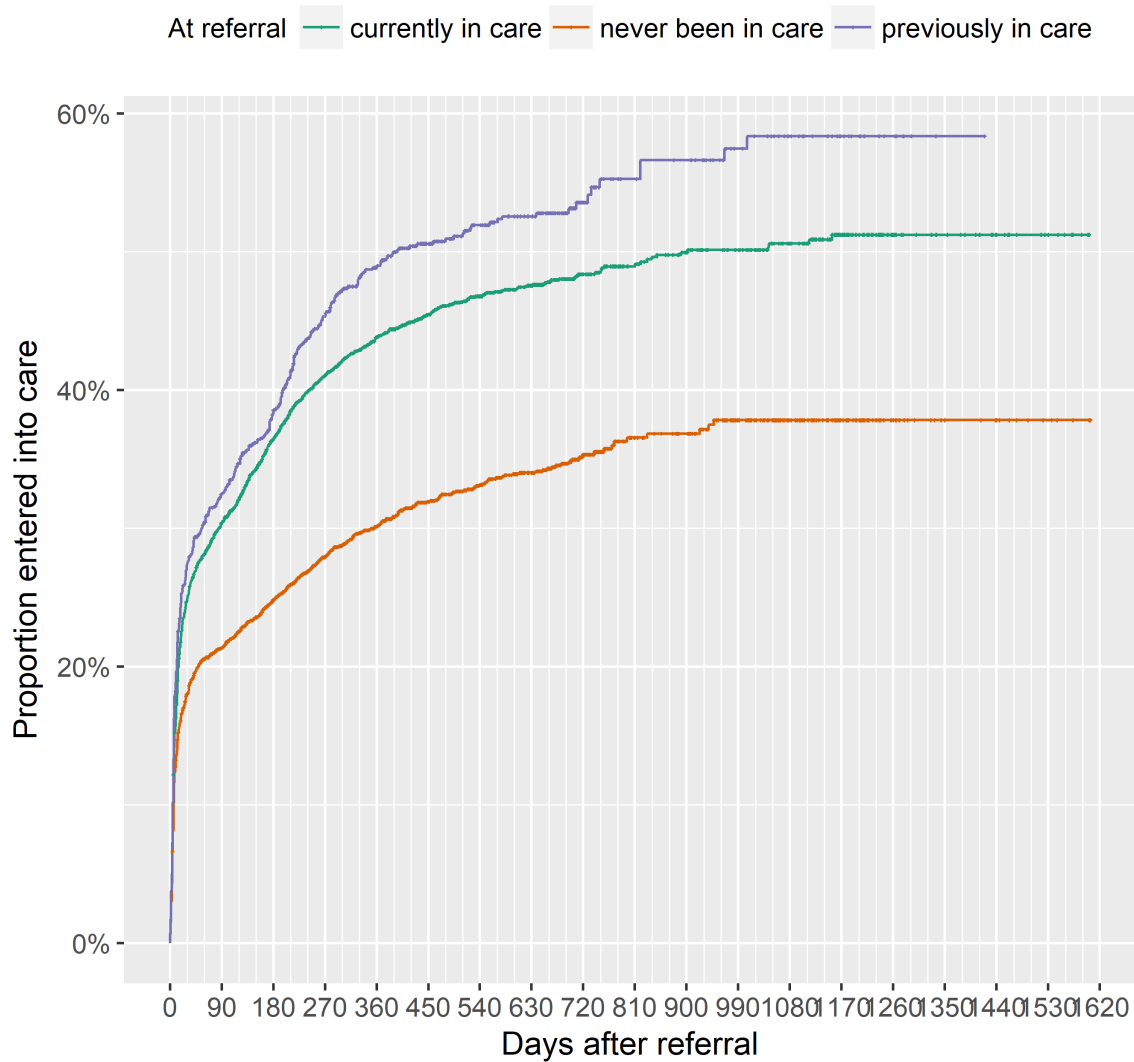


Time to linkage to TasP clinics per cluster group

Cluster group — G1 (opened in 2012) — G2 (opened in 2013) — G3 (opened in 2011)



Time to linkage to TasP clinics per care status at referral



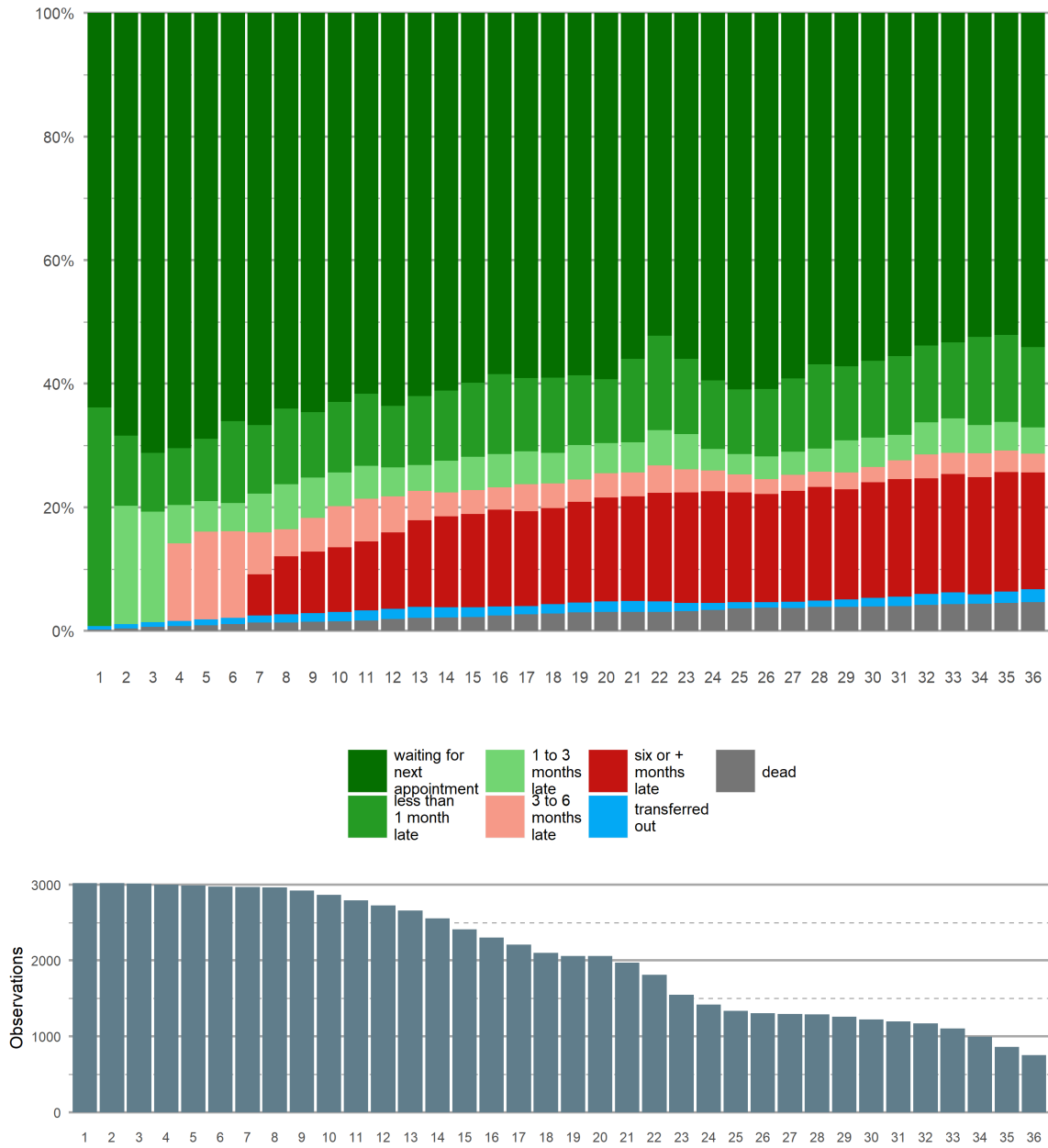
6 Retention in TasP clinics (after baseline visit)

This retention status in TasP clinic (definition 19.2) indicates, at a specific point of time, the status of a TasP patient regarding his/her care within TasP clinics. This status is based on the next appointment scheduled by the nurse/ARV counsellor, i.e. it indicates if the patient is waiting his/her next appointment or if he/she is late.

Furthermore, this status also takes into account if the patient was reported dead or if he/she was transferred out. A patient could be transferred out for several reasons, including the willingness to receive care in DoH clinics or migration outside the TasP area. A patient could transfer out and then come back later in TasP clinics.

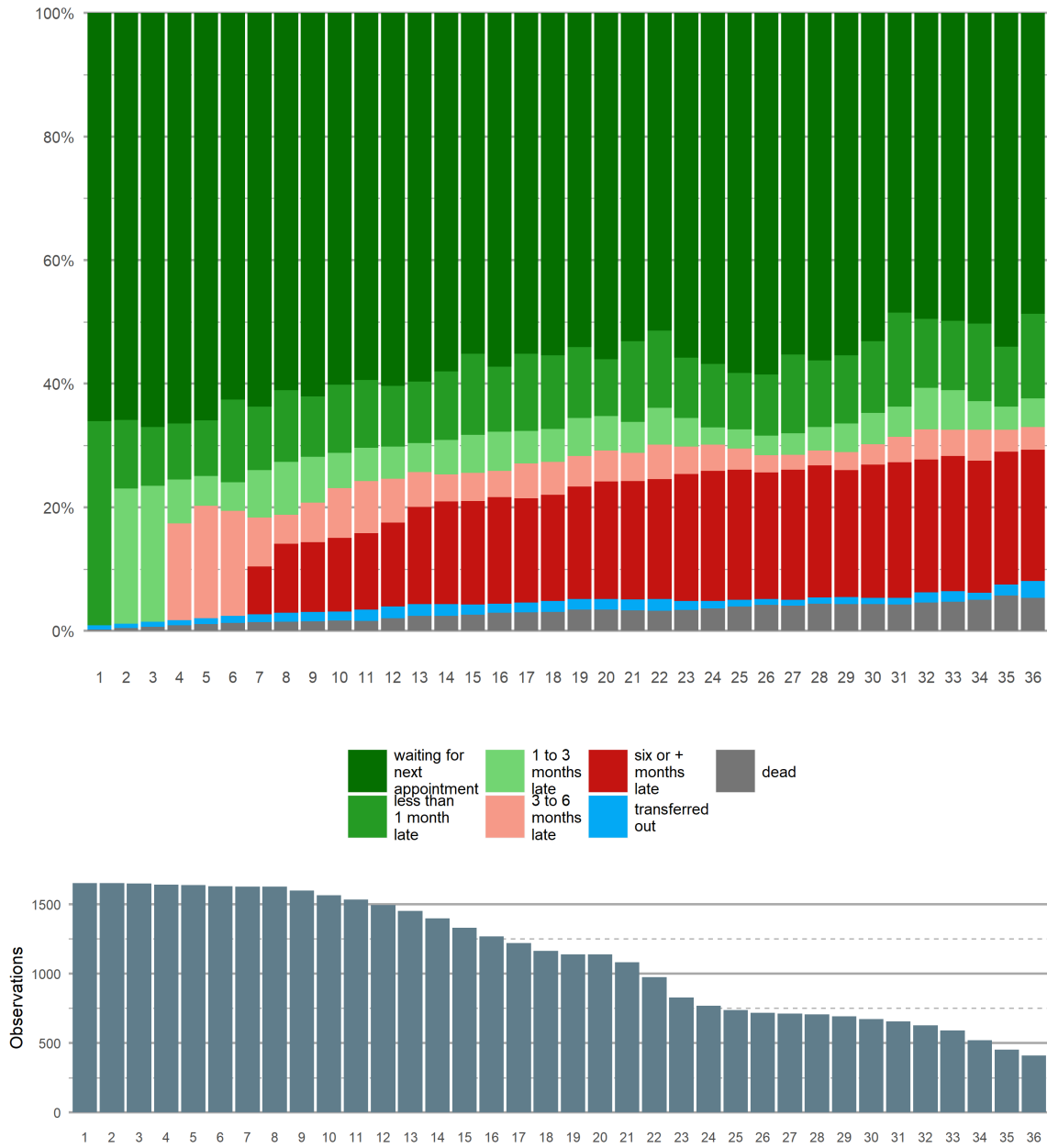
6.1 Overall schema

Retention in TasP clinics (all clusters)



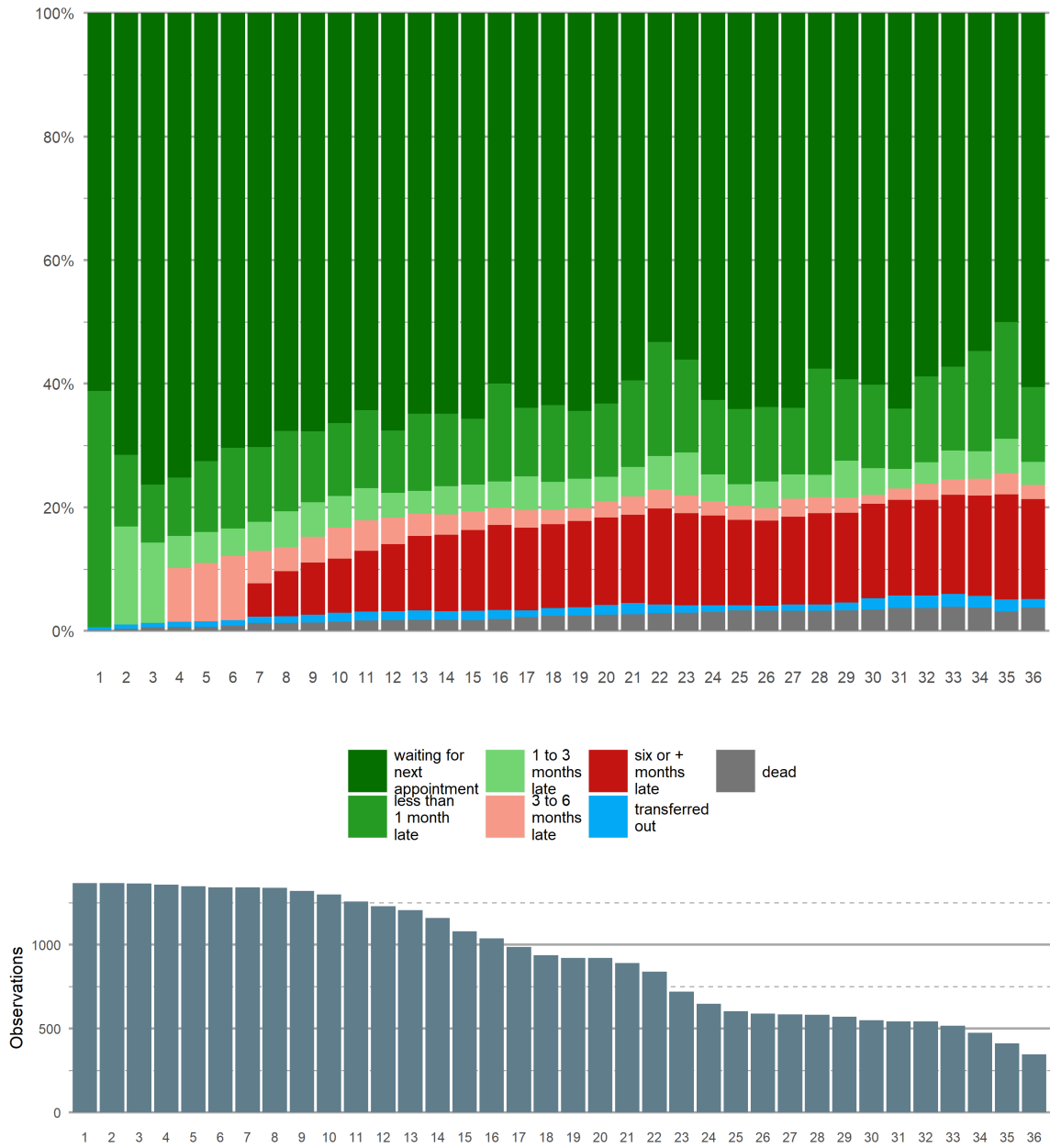
6.2 Control clusters

Retention in TasP clinics (control clusters)



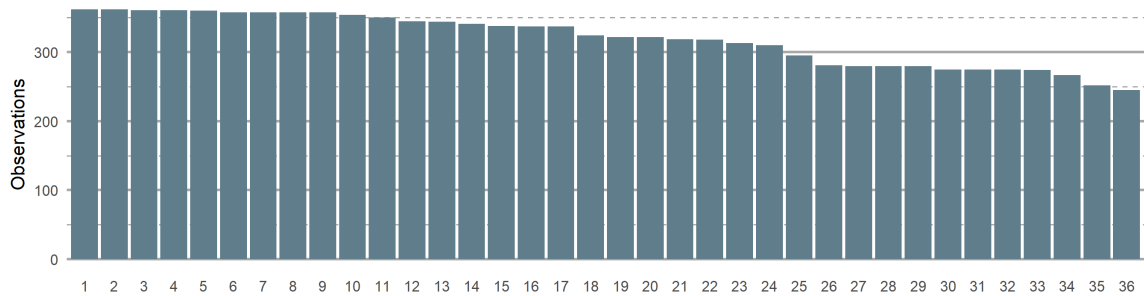
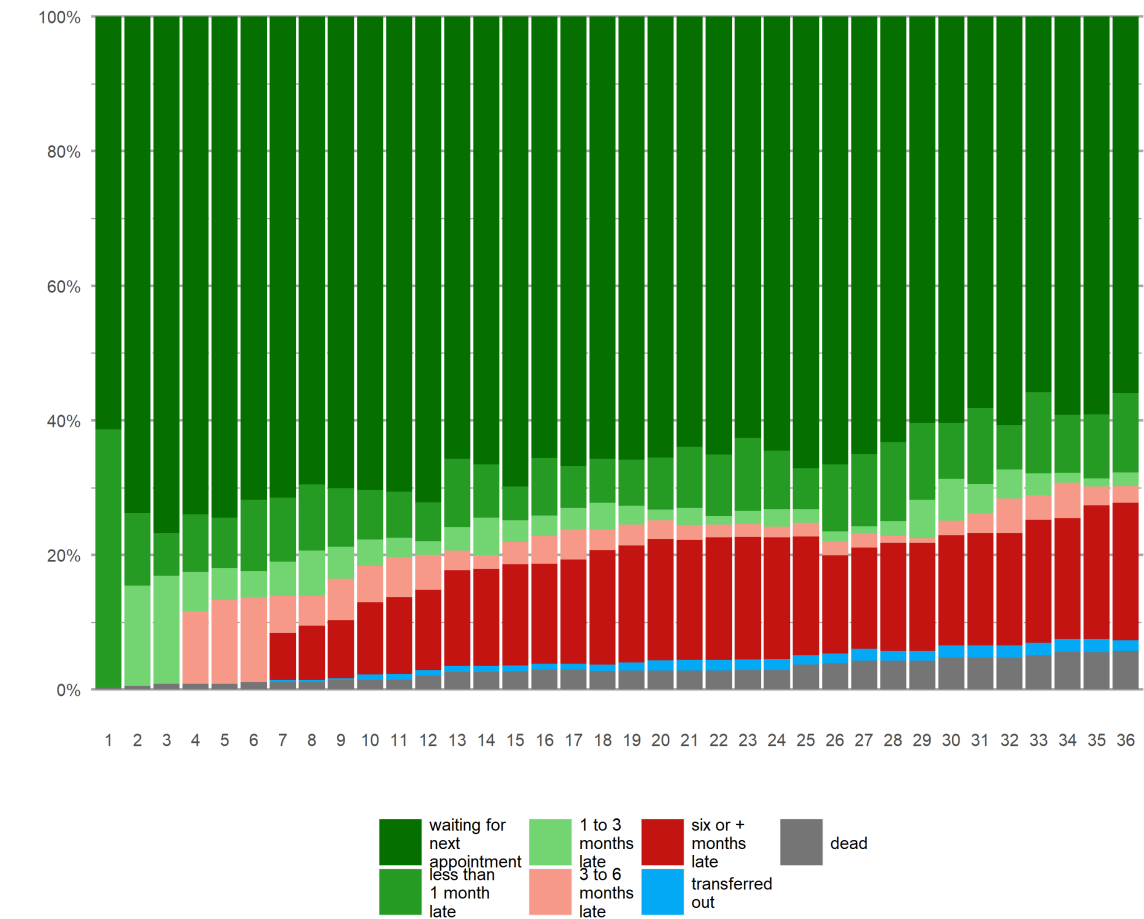
6.3 Intervention clusters

Retention in TasP clinics (intervention clusters)



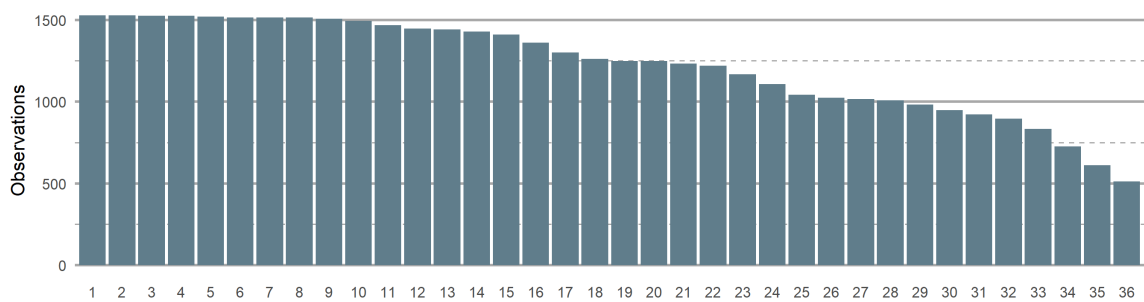
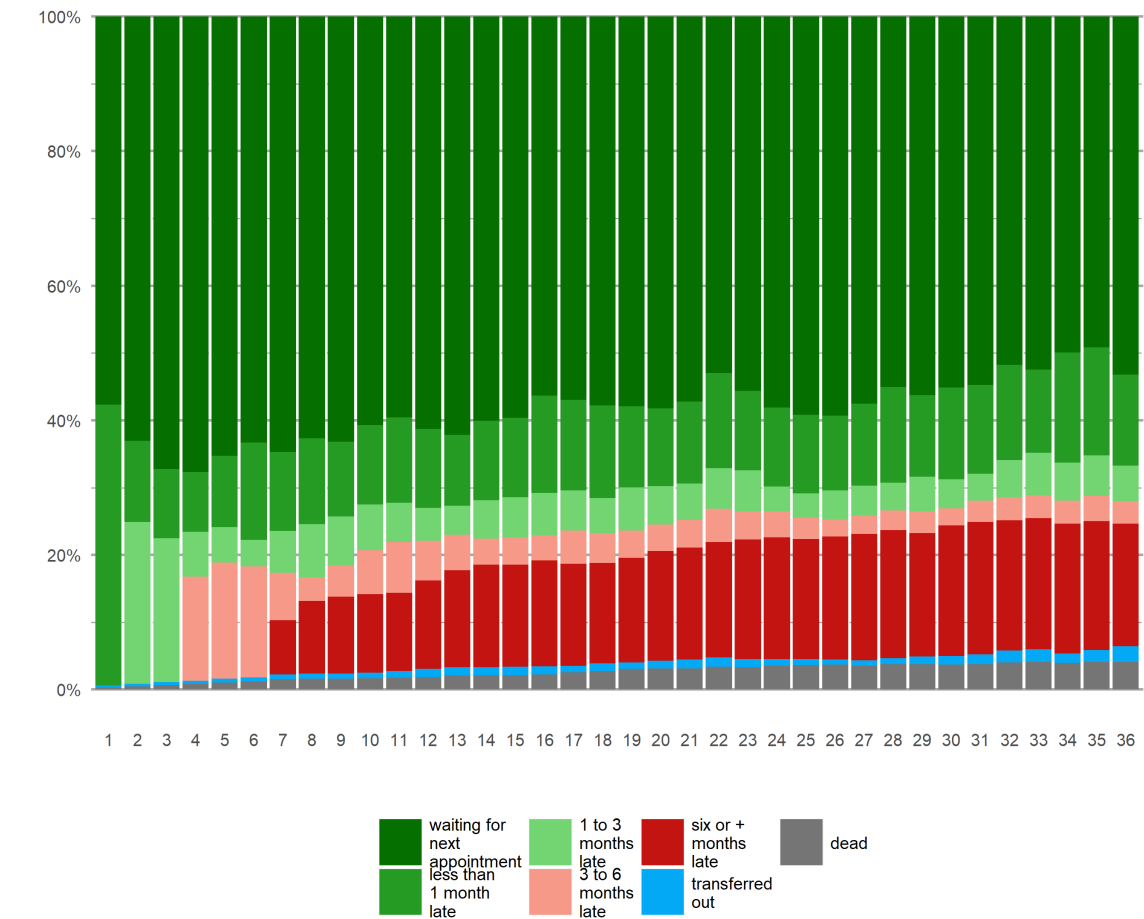
6.4 Group 1 clusters (opened in 2012)

Retention in TasP clinics (group 1 clusters)



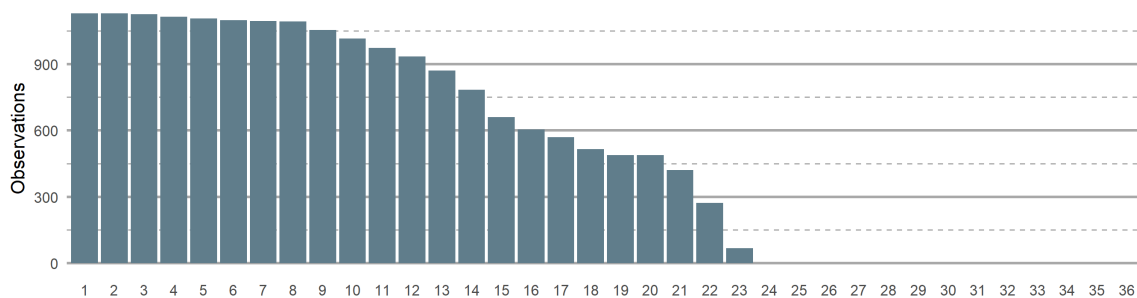
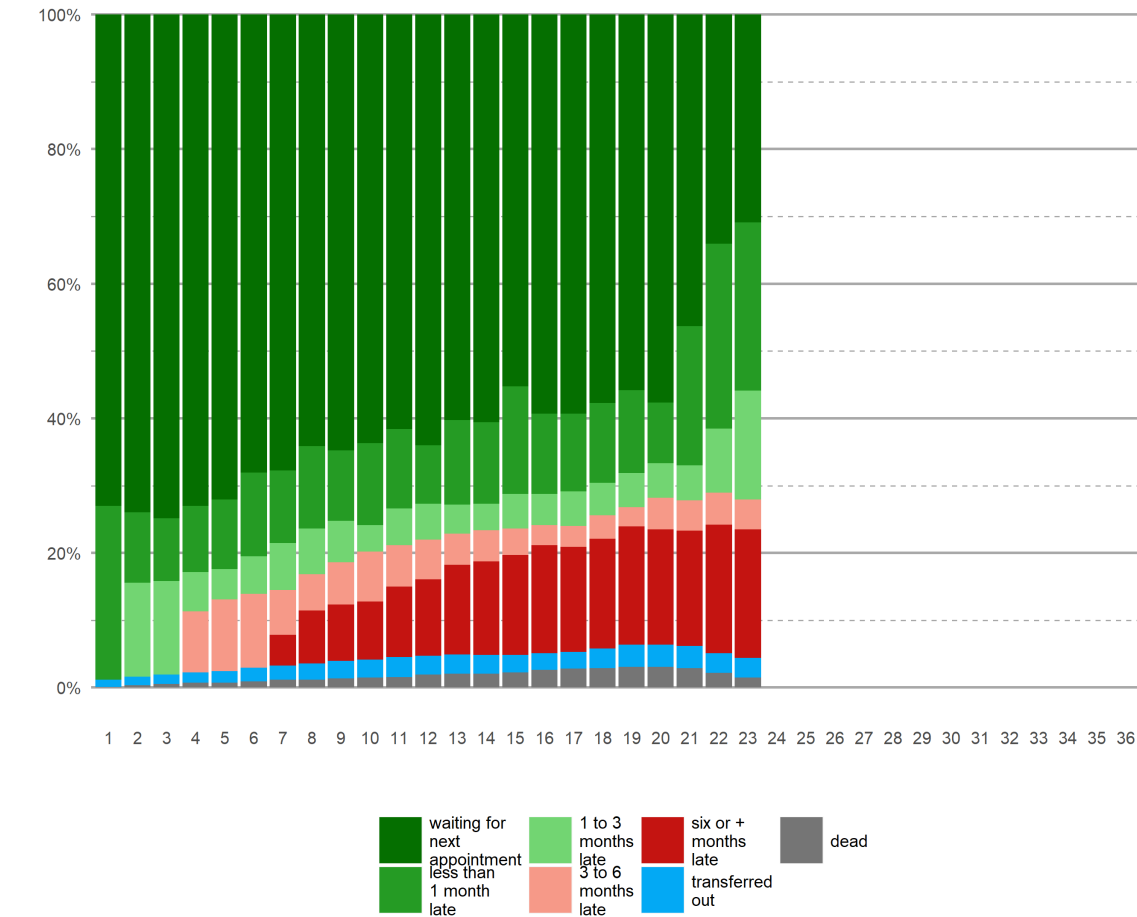
6.5 Group 2 clusters (opened in 2013)

Retention in TasP clinics (group 2 clusters)



6.6 Group 3 clusters (opened in 2014)

Retention in TasP clinics (group 3 clusters)



6.7 Crude retention rate

This indicator (indicator 19.3) indicates the proportion of individuals still in care at MX among all individuals observed X months, **including** deaths and transfers out. A individual is considered as *lost to follow up* if he is more than 3 months late, transferred out or dead. An individual is considered *retained* in care if he is waiting for his next appointment or is less than 3 months late.

These crude retention rates could be readen directly on the previous retention shemas (and correspond to the

three categories represented in green).

Table 3: Crude retention rate per arm

	n/N	%	95% CI
Control clusters			
at M6 (183 days)	1313/1629	80.6%	78.6-82.5
at M12 (365 days)	1127/1495	75.4%	73.1-77.5
at M18 (548 days)	846/1164	72.7%	70.0-75.2
at M24 (730 days)	537/769	69.8%	66.5-73.0
at M30 (913 days)	469/672	69.8%	66.2-73.2
at M36 (1095 days)	274/409	67.0%	62.3-71.4
Intervention clusters			
at M6 (183 days)	1179/1342	87.9%	86.0-89.5
at M12 (365 days)	1004/1230	81.6%	79.4-83.7
at M18 (548 days)	754/938	80.4%	77.7-82.8
at M24 (730 days)	512/648	79.0%	75.7-82.0
at M30 (913 days)	429/550	78.0%	74.3-81.3
at M36 (1095 days)	265/347	76.4%	71.6-80.6
All clusters			
at M6 (183 days)	2492/2971	83.9%	82.5-85.2
at M12 (365 days)	2131/2725	78.2%	76.6-79.7
at M18 (548 days)	1600/2102	76.1%	74.2-77.9
at M24 (730 days)	1049/1417	74.0%	71.7-76.2
at M30 (913 days)	898/1222	73.5%	70.9-75.9
at M36 (1095 days)	539/756	71.3%	68.0-74.4

Table 4: Crude retention rate per cluster group

	n/N	%	95% CI
Group 1 clusters (opened in 2012)			
at M6 (183 days)	309/358	86.3%	82.3-89.5
at M12 (365 days)	276/345	80.0%	75.4-83.9
at M18 (548 days)	247/324	76.2%	71.3-80.6
at M24 (730 days)	235/310	75.8%	70.7-80.3
at M30 (913 days)	206/275	74.9%	69.4-79.7
at M36 (1095 days)	171/245	69.8%	63.7-75.2
Group 2 clusters (opened in 2013)			
at M6 (183 days)	1238/1515	81.7%	79.7-83.6
at M12 (365 days)	1126/1446	77.9%	75.7-79.9
at M18 (548 days)	969/1262	76.8%	74.4-79.0
at M24 (730 days)	814/1107	73.5%	70.8-76.1
at M30 (913 days)	692/947	73.1%	70.2-75.8
at M36 (1095 days)	368/511	72.0%	68.0-75.7
Group 3 clusters (opened in 2014)			
at M6 (183 days)	945/1098	86.1%	83.9-88.0
at M12 (365 days)	729/934	78.1%	75.3-80.6
at M18 (548 days)	384/516	74.4%	70.5-78.0
at M24 (730 days)	0/0	NA	NA-NA
at M30 (913 days)	0/0	NA	NA-NA
at M36 (1095 days)	0/0	NA	NA-NA

6.8 Net retention rate

This indicator (indicator 19.4) indicates the proportion of individuals still in care at MX among all individuals observed X months, **excluding** deaths. A individual is considered as *lost to follow up* if he is more than 3 months late or transferred out. An individual is considered *retained* in care if he is waiting for his next appointment or is less than 3 months late.

Table 5: Net retention rate per arm

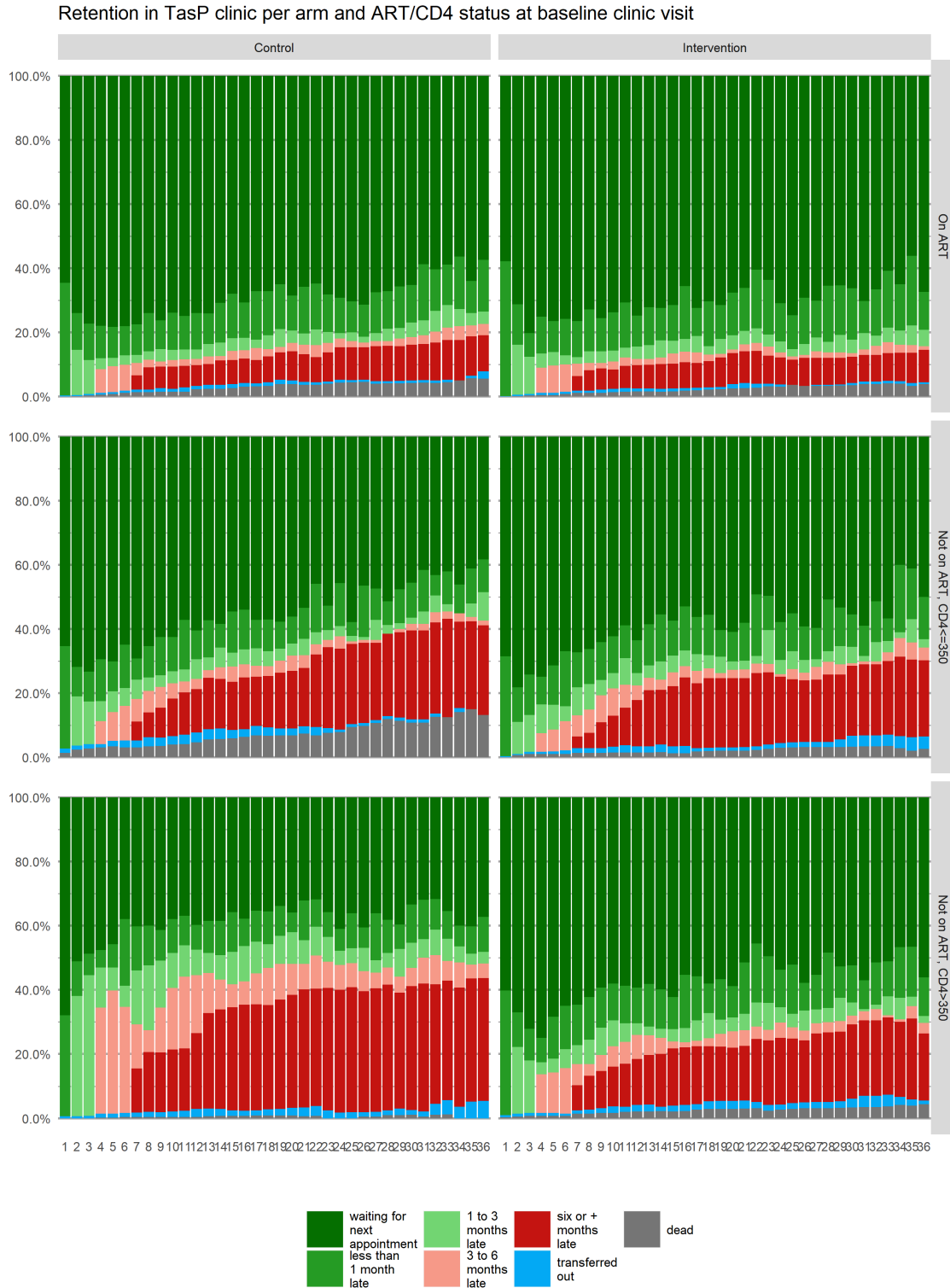
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Table 6: Net retention rate per cluster group

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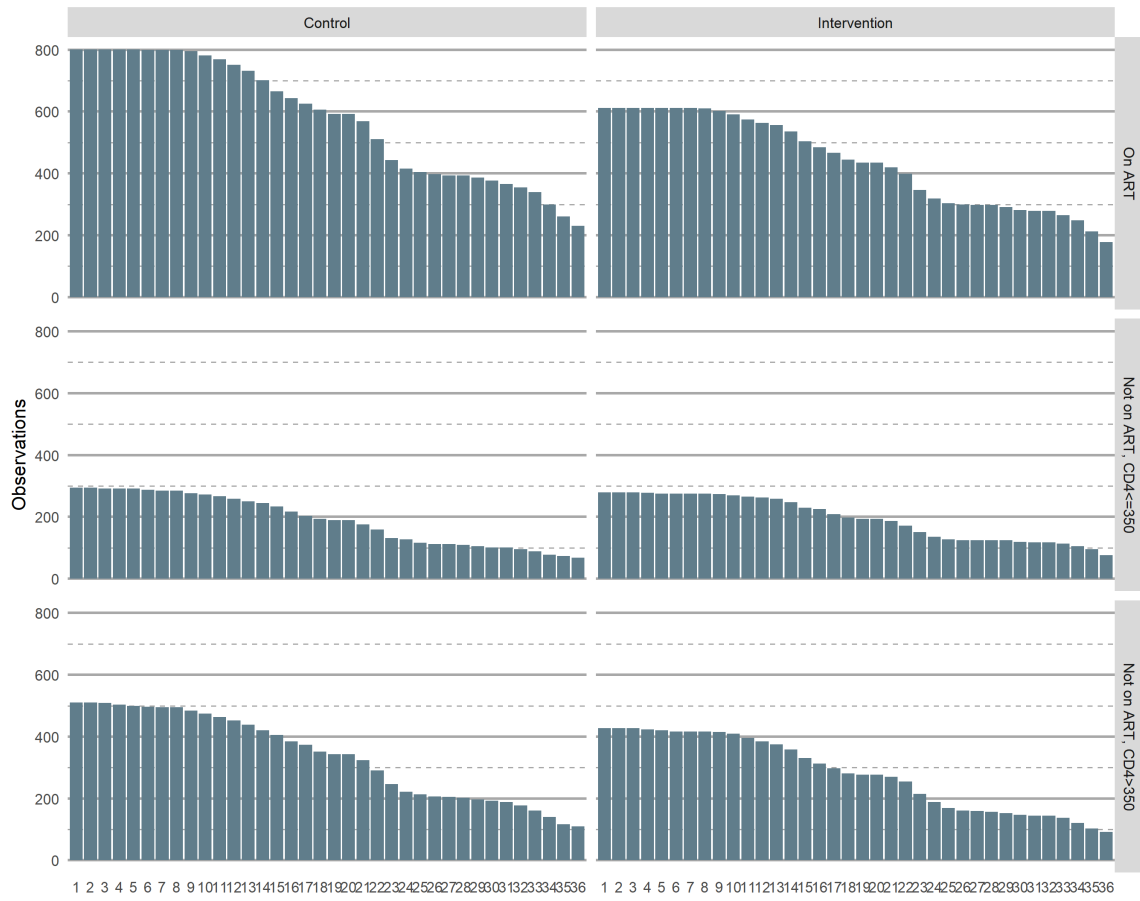
	n/N	%	95% CI
at M18 (548 days)	384/516	74.4%	70.5-78.0
at M24 (730 days)	0/0	NA	NA-NA
at M30 (913 days)	0/0	NA	NA-NA
at M36 (1095 days)	0/0	NA	NA-NA

6.9 Retention per ART status and CD4 at baseline clinic visit



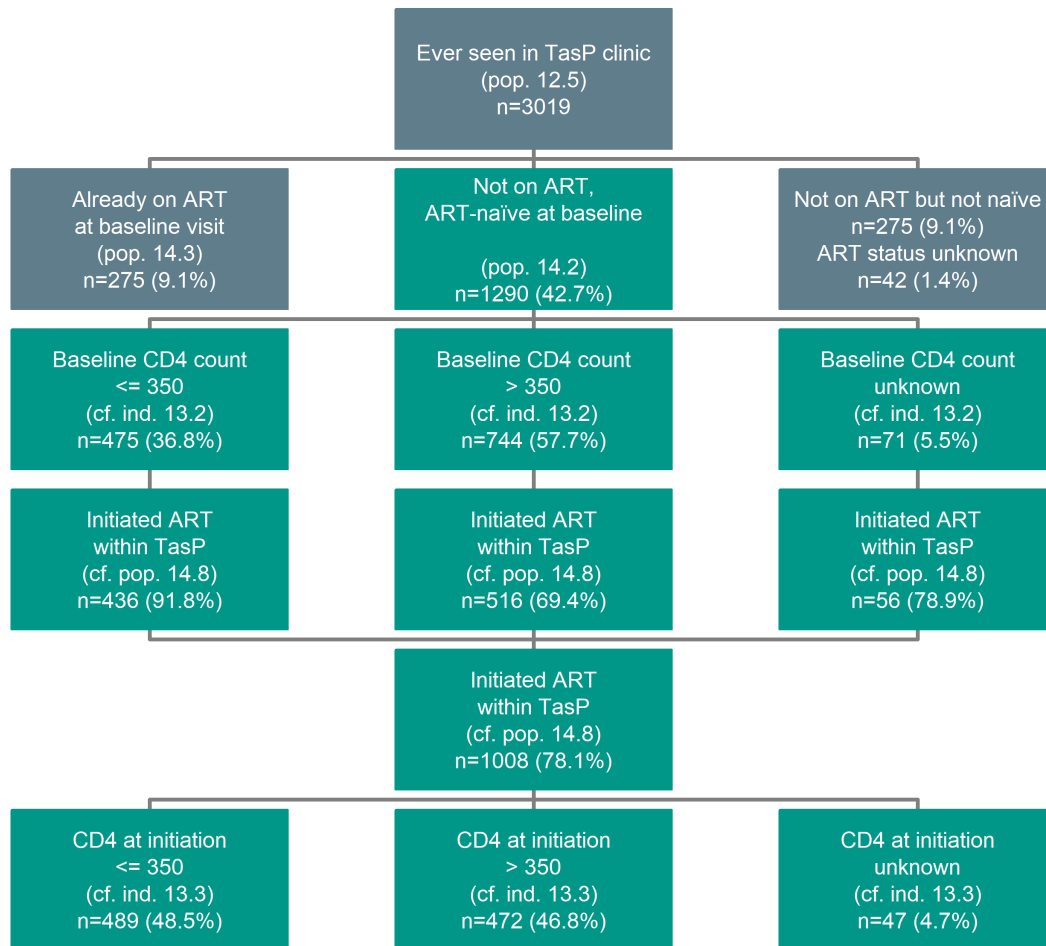
Note: this graph doesn't take into account ART eligibility at baseline (only CD4 count) and if individuals initiated ART after baseline clinic visit.

Observations for retention per arm and ART/CD4 status at baseline clinic visit

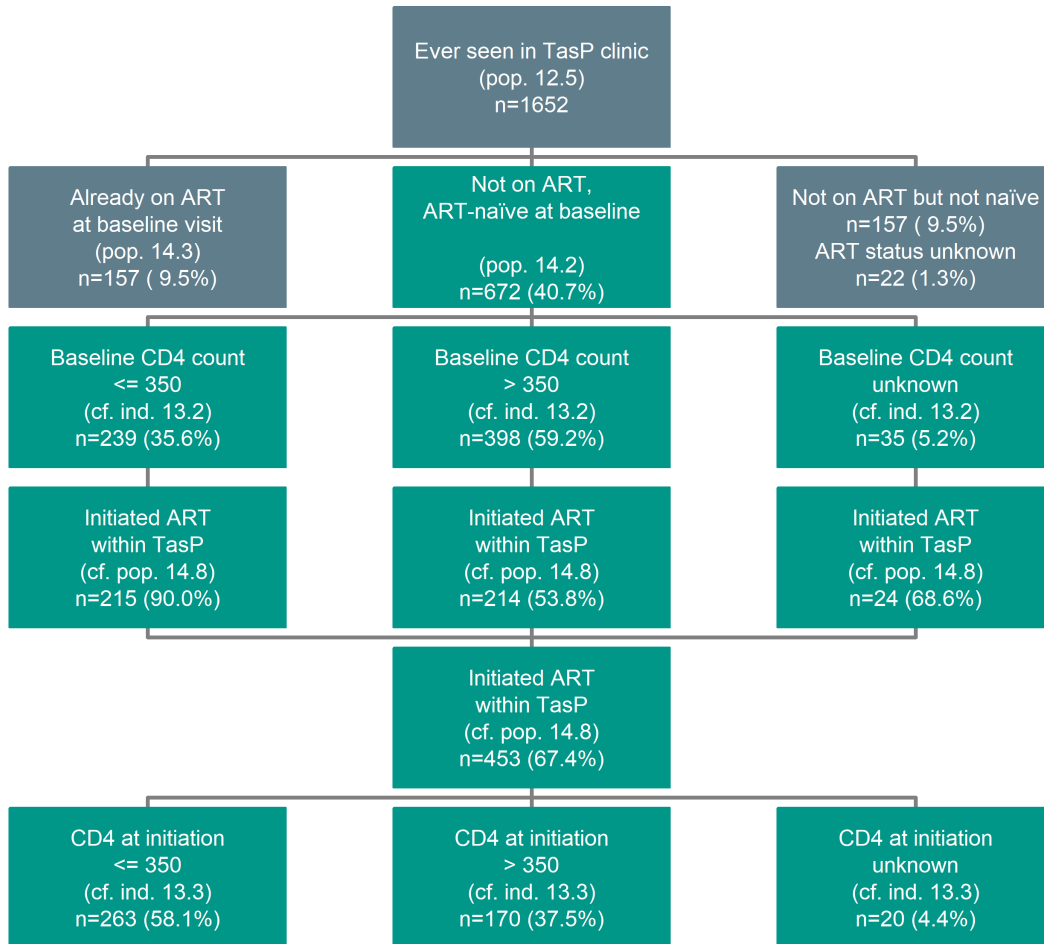


7 ART initiation within TasP clinics

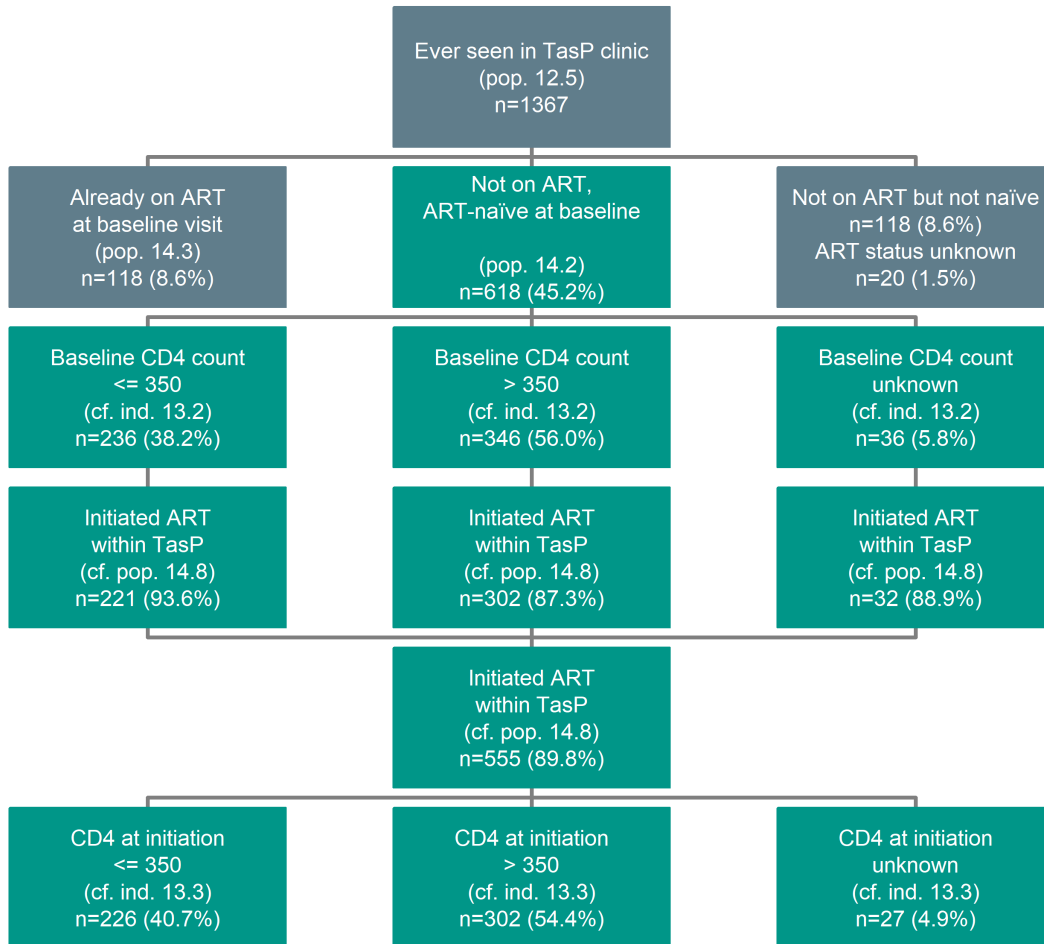
7.1 Overall flow chart



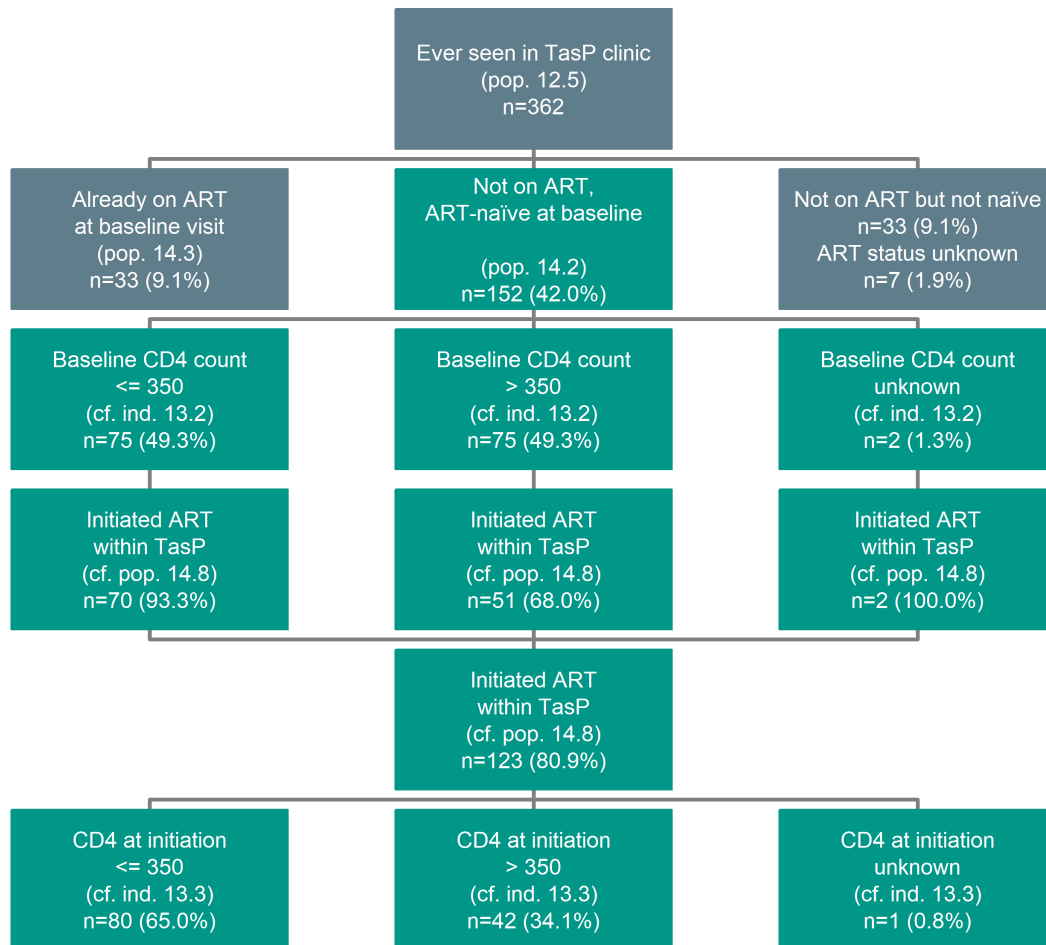
7.2 Control clusters



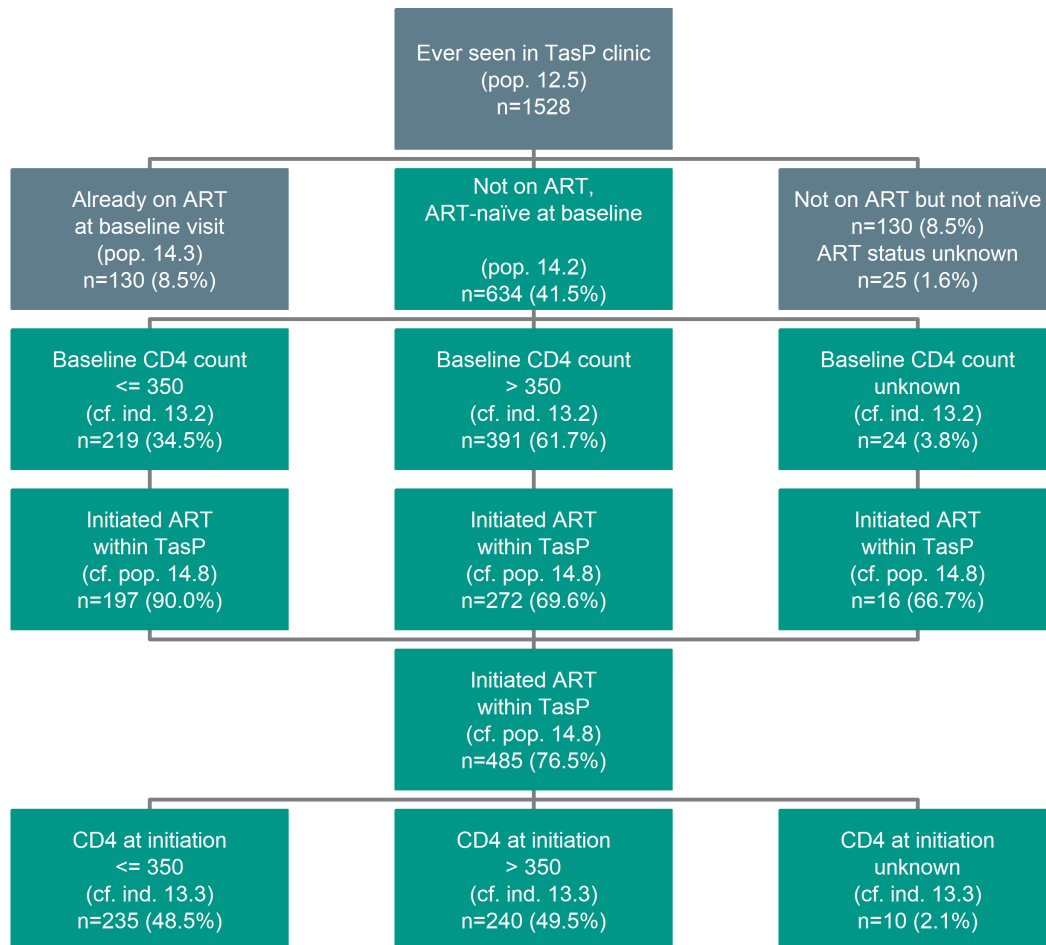
7.3 Intervention clusters



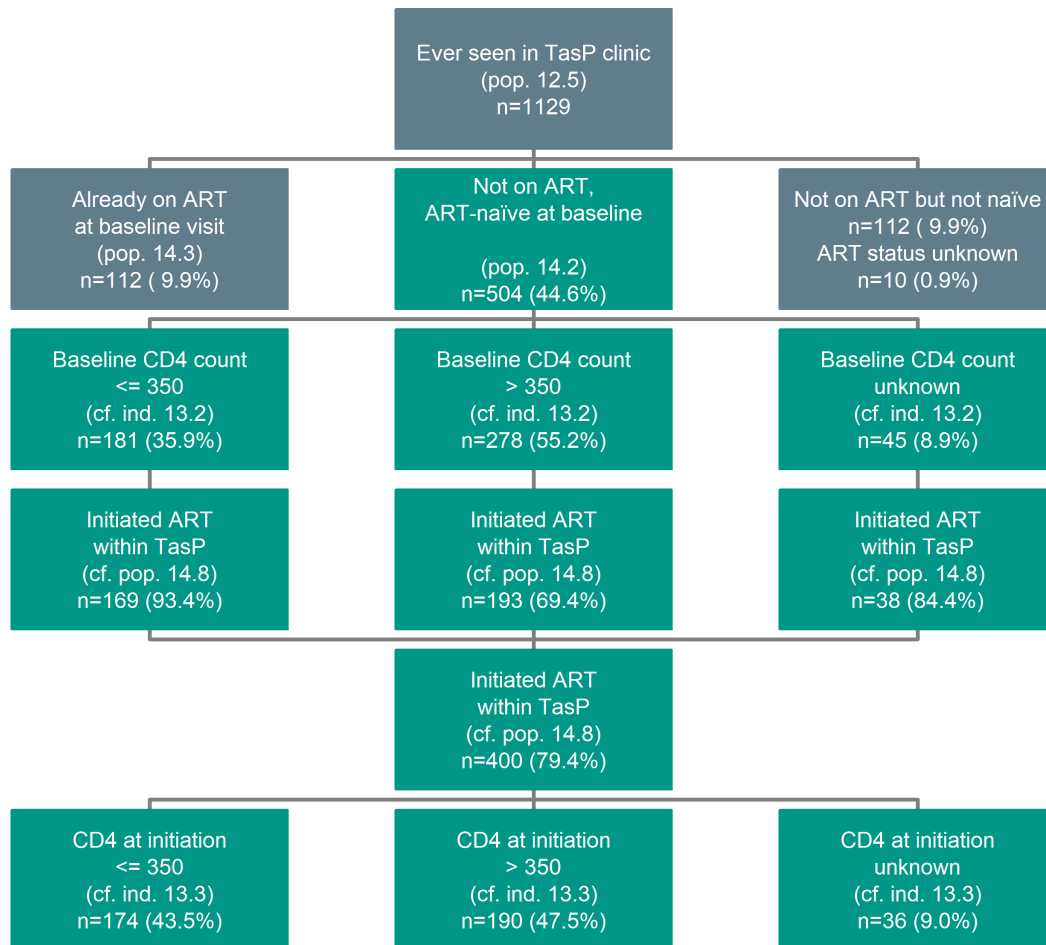
7.4 Group 1 clusters (opened in 2012)



7.5 Group 2 clusters (opened in 2013)



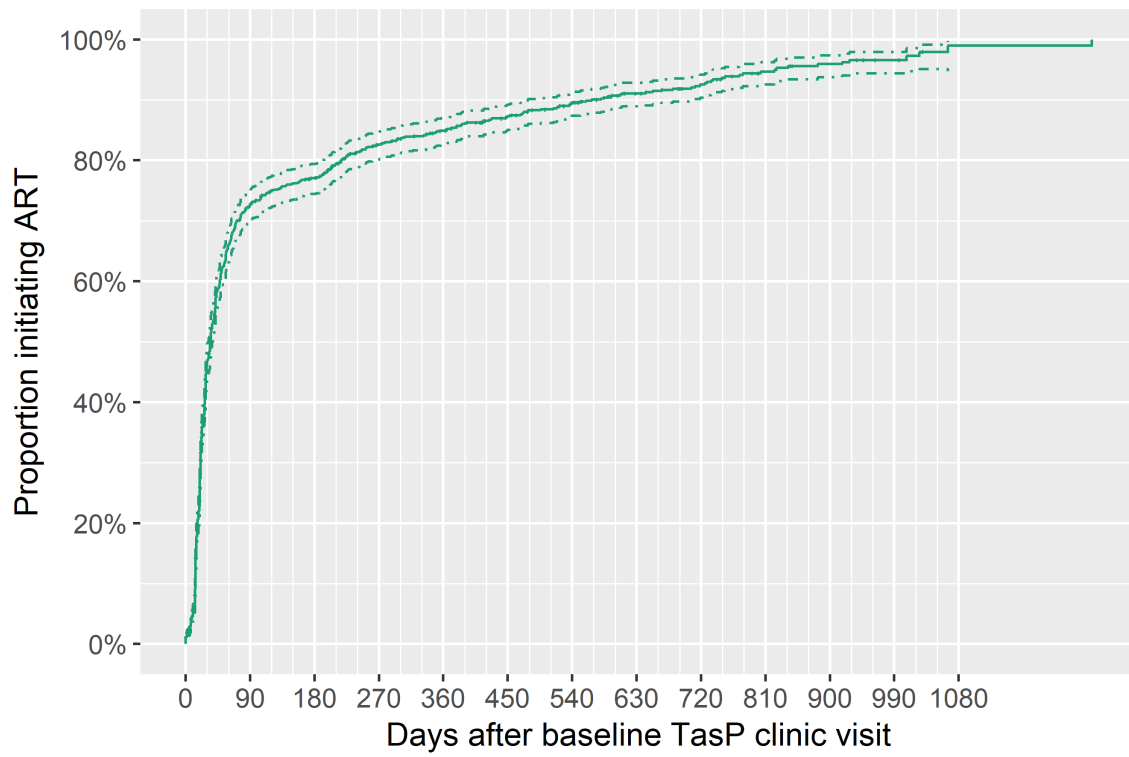
7.6 Group 3 clusters (opened in 2014)



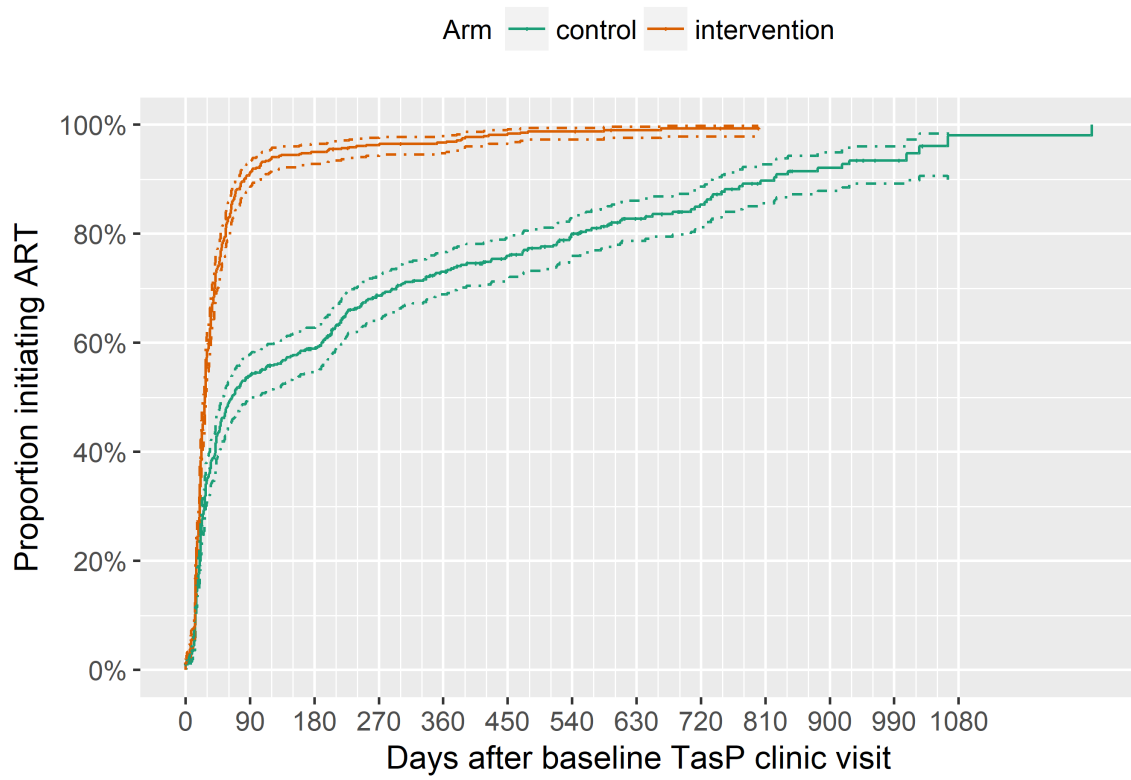
7.7 Time from baseline visit to ART initiation in TasP clinics (individuals ART-naïve at baseline)

Note: for the following figures, we took into account time of observation for each individual. Time of observation is defined as the number of days between the last TasP clinic visit and baseline TasP clinic visit. Therefore, end of data collection, transfers out and losts to follow-up are properly taken into account

Time to ART initiation in TasP after baseline clinic visit
(ART-naïve patients)

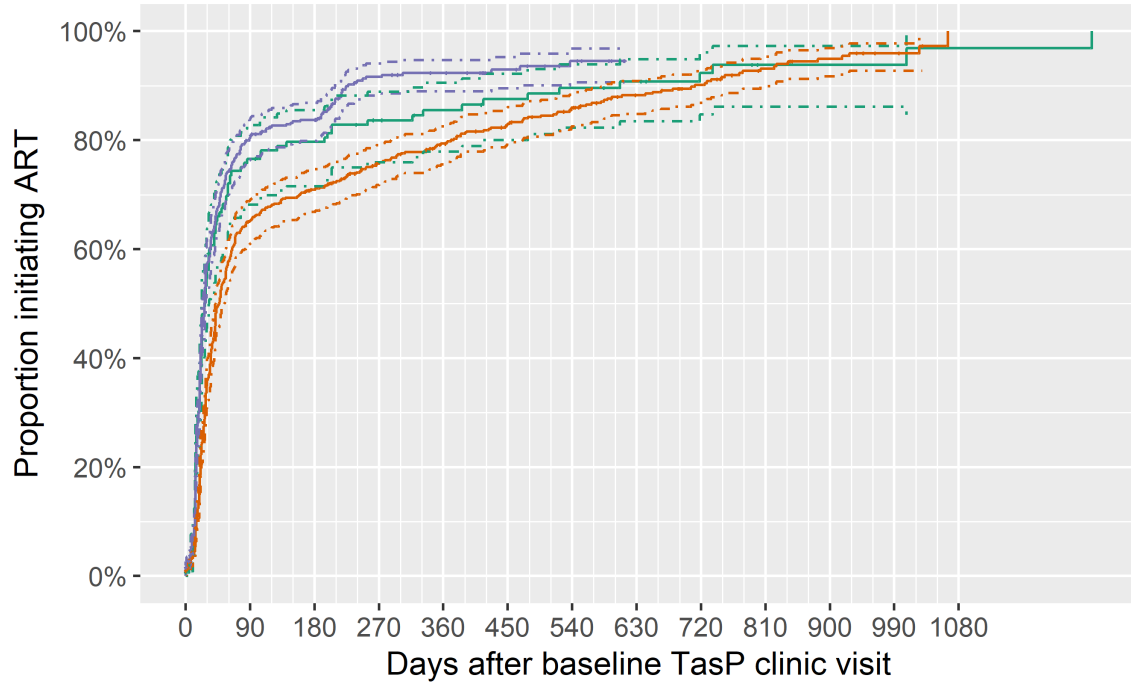


Time to ART initiation after baseline visit per arm

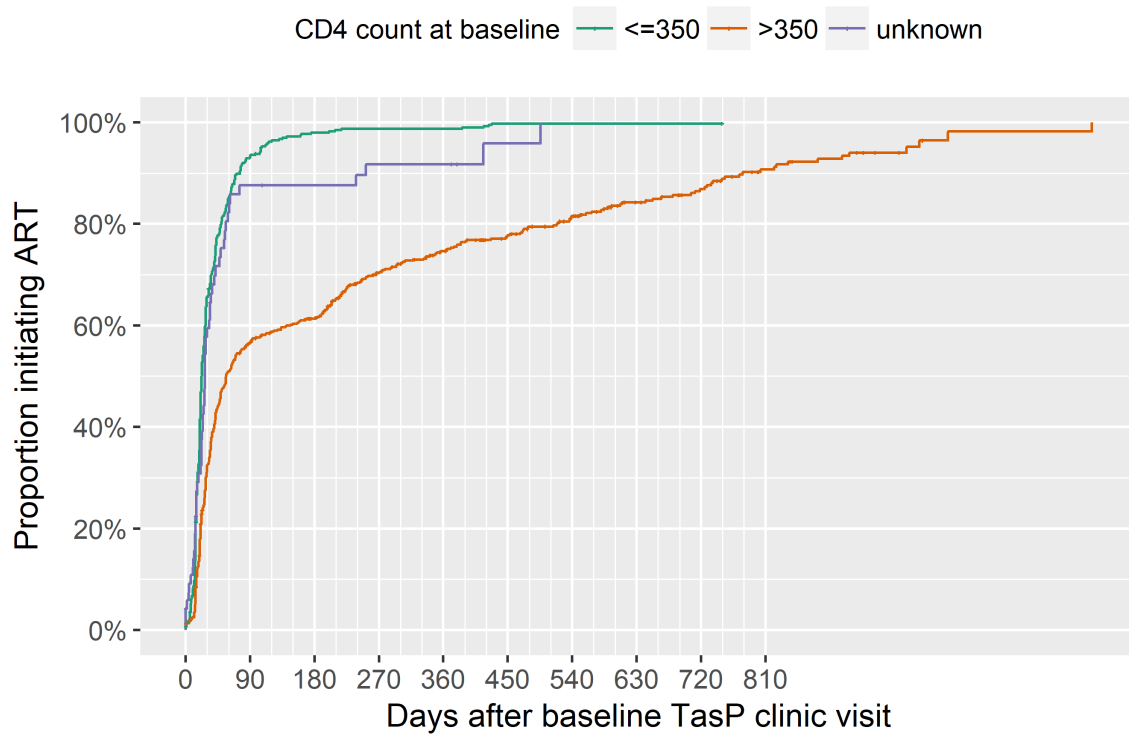


Time to ART initiation after baseline visit per cluster group

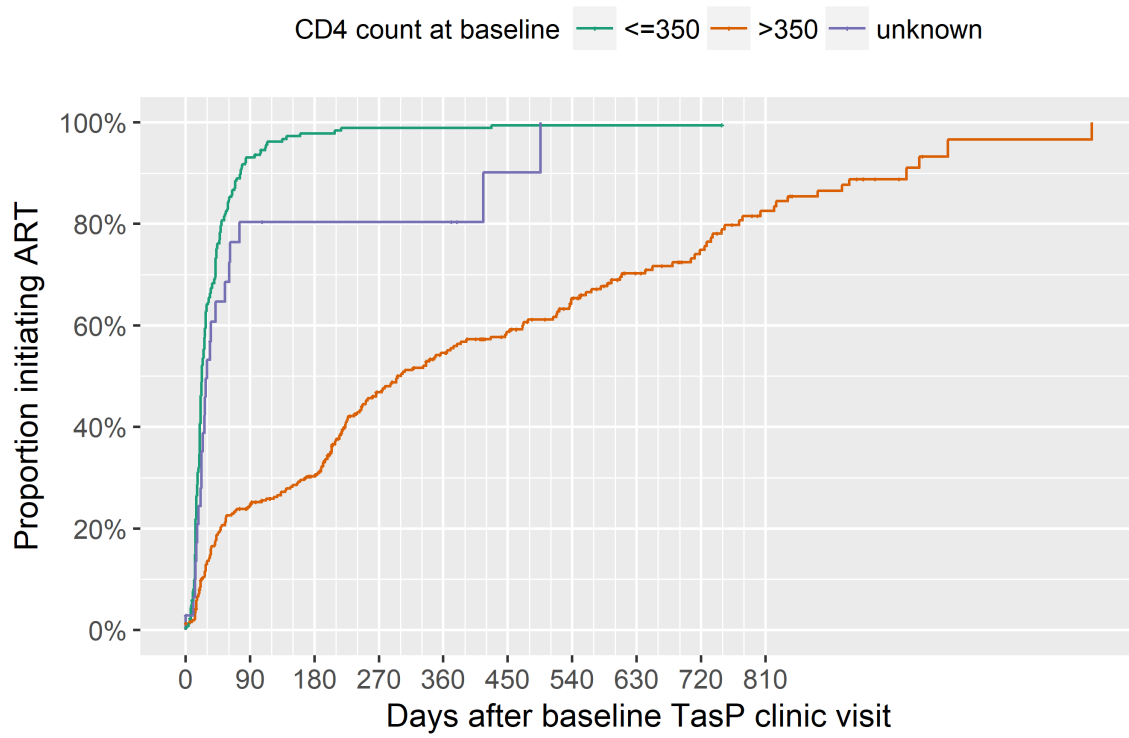
Cluster group — G1 (opened in 2012) — G2 (opened in 2013) — G3 (opened in 2014)



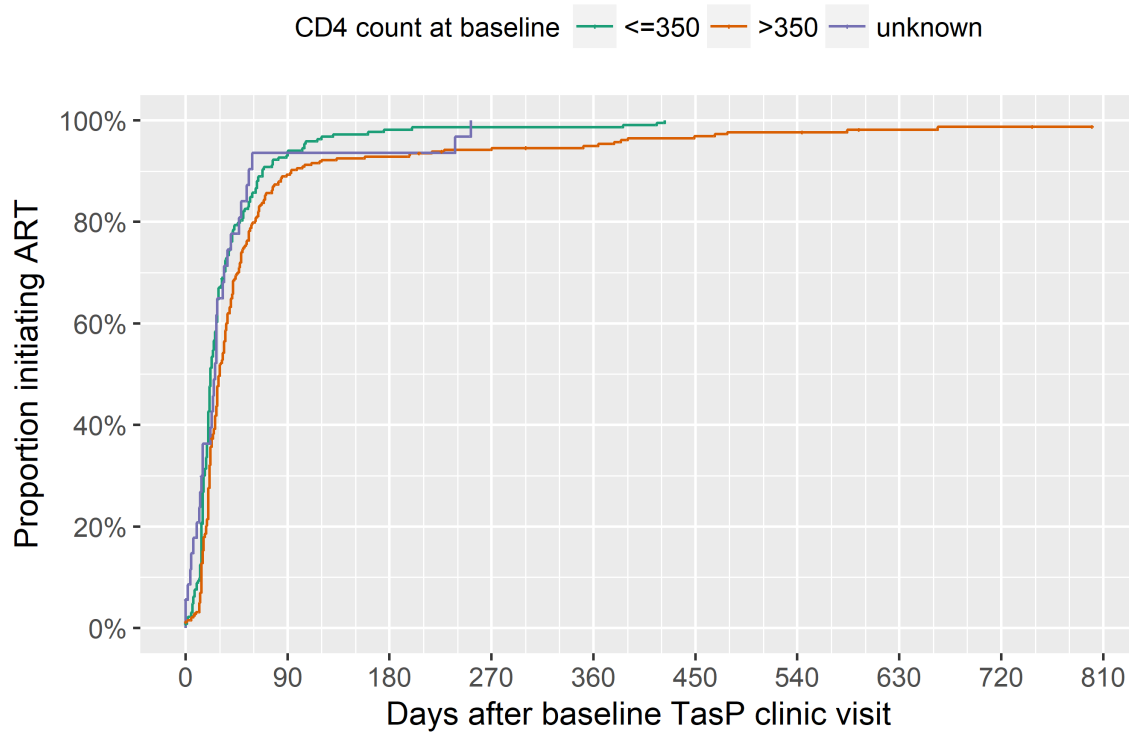
Time to ART initiation per CD4 count at baseline (all clusters)



Time to ART initiation per CD4 count at baseline (control clusters)



Time to ART initiation per CD4 count at baseline (intervention clusters)



8 HIV prevalence (first DBS)

HIV prevalence is computed using the first valid DBS (indeterminate and unknown results excluded) of each individual with at least one valid DBS result (see definition 18.1).

Table 7: First DBS HIV prevalence per cluster and per arm

	Group	n/N	%	95% CI
Per cluster				
Cluster 1 (Madwaleni)	1	303/1327	22.8%	20.7-25.2
Cluster 2 (Shunqa)	1	208/846	24.6%	21.8-27.6
Cluster 3 (Embongolweni)	1	227/1048	21.7%	19.3-24.3
Cluster 4 (Ntondweni)	1	170/746	22.8%	19.9-25.9
Cluster 5 (kwaGxaba)	2	187/877	21.3%	18.7-24.2
Cluster 6 (Makhambane)	2	250/968	25.8%	23.2-28.7
Cluster 7 (Cakula)	3	61/303	20.1%	16.0-25.1
Cluster 8 (kwaSqumbe)	2	692/1999	34.6%	32.6-36.7
Cluster 9 (Bhekamandla)	3	622/1896	32.8%	30.7-35.0
Cluster 10 (Egedeni)	2	678/1721	39.4%	37.1-41.7
Cluster 11 (Mchakwini)	2	893/2473	36.1%	34.2-38.0
Cluster 12 (Mfekayi)	3	490/1382	35.5%	33.0-38.0
Cluster 13 (Makhwela)	2	420/1302	32.3%	29.8-34.9
Cluster 14 (Esiphahleni)	3	561/1692	33.2%	31.0-35.4
Cluster 15 (Nkundusi)	3	320/1185	27.0%	24.5-29.6

	Group	n/N	%	95% CI
Cluster 16 (Mazala)	3	524/1494	35.1%	32.7-37.5
Cluster 17 (Chwebeni)	3	283/894	31.7%	28.7-34.8
Cluster 18 (Maqanda)	3	305/1085	28.1%	25.5-30.9
Cluster 19 (Danyini)	3	134/542	24.7%	21.3-28.5
Cluster 20 (Esiqwini)	3	81/463	17.5%	14.3-21.2
Cluster 21 (Odakaneni)	3	193/658	29.3%	26.0-32.9
Cluster 22 (Ingodini)	3	187/707	26.4%	23.3-29.8
Per cluster group				
Group 1 (opened in 2012)		908/3967	22.9%	21.6-24.2
Group 2 (opened in 2013)		3120/9340	33.4%	32.5-34.4
Group 3 (opened in 2014)		3761/12301	30.6%	29.8-31.4
Per arm				
Control		4201/13552	31.0%	30.2-31.8
Intervention		3588/12056	29.8%	29.0-30.6
Overall				
All clusters		7789/25608	30.4%	29.9-31.0