

Concise Summary report for Client Retention

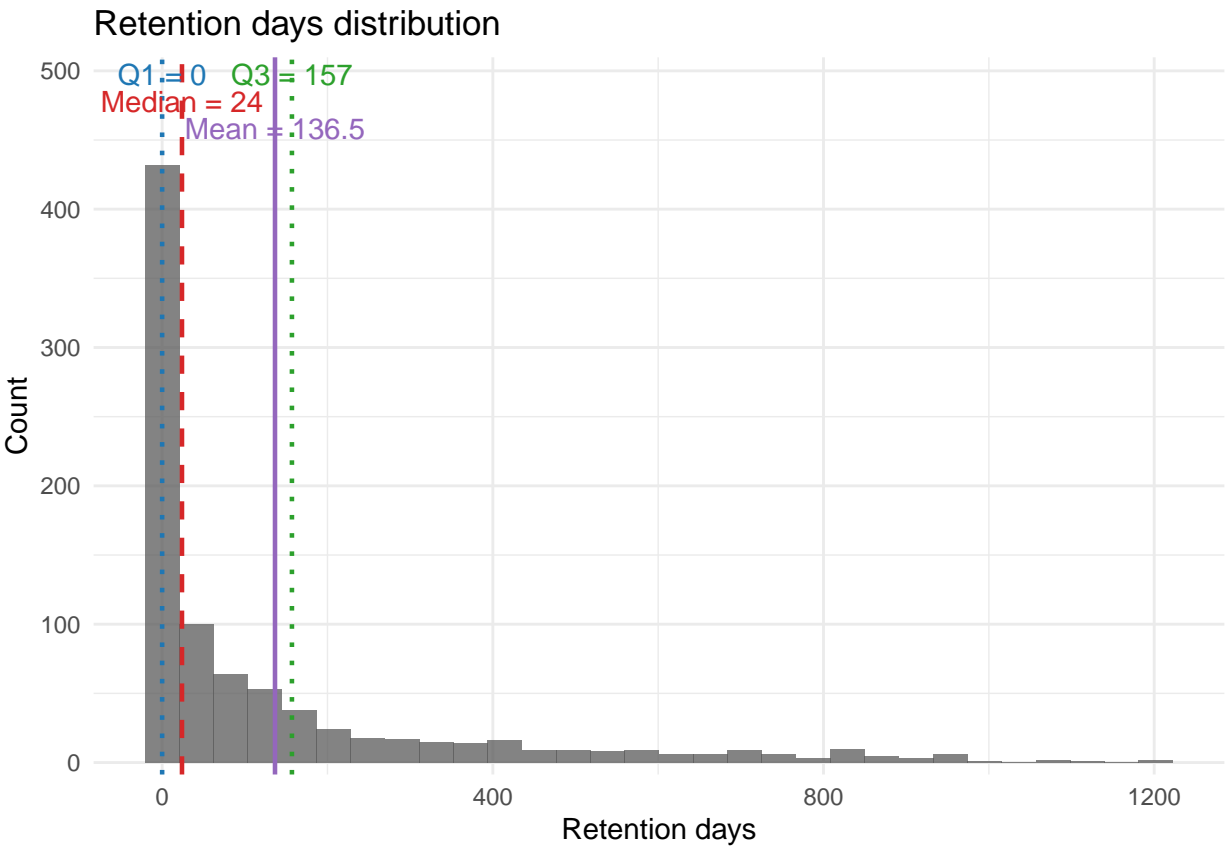
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Executive summary

1413 clients were served total. On average, clients stayed about 136 days. The middle 50% were between in the range of 0 days to 157 days, with a median of 96.5 days. Many clients signed up but didn't engaged (288 people,takes about 20.3821656 % of the total). We have 426 clients with retention days over 30 days, and the proportion of clients that are engaged over 30 day is 48.1 %.We have 305 clients with retention days over 90, and the proportion of clients that are engaged over 90 day is 34.4 %.

Below is the visualization of the retention days with the key metrics:



With a median of 96.5 days:

- 587 clients are categorized as low retention (\leq median), and they are 66.3 % of the total.
- 299 clients are considered as high retention ($>$ median), and they are 33.7 % of the total.

With the middle 50% clients were in the range of 0 retention days to 157retention days:

- 288 clients were in the bottom 25% in terms of retention days.
- 378 clients were in the middle 50% in terms of retention days.
- 220 clients were in the top 75% in terms of retention days.

Here is how the retention days spread among different age groups:

- For ages 18-24, there are 123. The average retention are 107 days and the median of the retention days is 8. The number of people 30-day engagement is 30, and it takes up to 37.037037% of this age group. The number of people 90-day engagement is 23, and it takes up to 28.3950617% of this age group.
- For ages 25-34, there are 379. The average retention are 136 days and the median of the retention days is 39. The number of people 30-day engagement is 136, and it takes up to 53.3333333% of this age group. The number of people 90-day engagement is 90, and it takes up to 35.2941176% of this age group.
- For ages 35-44, there are 433. The average retention are 144 days and the median of the retention days is 28. The number of people 30-day engagement is 145, and it takes up to 49.6575342% of this age group. The number of people 90-day engagement is 109, and it takes up to 37.3287671% of this age group.
- For ages 45-54, there are 201. The average retention are 150 days and the median of the retention days is 14. The number of people 30-day engagement is 65, and it takes up to 46.0992908% of this age group. The number of people 90-day engagement is 49, and it takes up to 34.751773% of this age group.
- For ages 55-64, there are 120. The average retention are 125 days and the median of the retention days is 28. The number of people 30-day engagement is 42, and it takes up to 47.7272727% of this age group. The number of people 90-day engagement is 29, and it takes up to 32.9545455% of this age group.
- For ages 65+, there are 37. The average retention are 168 days and the median of the retention days is 10. The number of people 30-day engagement is 7, and it takes up to 38.8888889% of this age group. The number of people 90-day engagement is 6, and it takes up to 33.3333333% of this age group.

Here is the breakdown of the retention days according to ethnicity groups, gender, legal involvement, homeless flag and drug abuse:

Table 1: Retention by ethnicity: average, median, and percent of total

ethnicity	N	Average	Median	30d_%	90d_%	Percent_of_total
White/Caucasian	685	136.5	26.0	48.61314	35.03650	78.8%
Black/African American	131	162.4	21.0	48.09160	34.35115	15.1%
Hispanic or Latino	26	85.4	9.5	42.30769	23.07692	3.0%
Other	6	123.8	97.5	66.66667	50.00000	0.7%
Unknown	6	167.5	32.0	50.00000	33.33333	0.7%
American Indian or Alaska Native	5	104.4	89.0	60.00000	40.00000	0.6%
Native Hawaiian or another Pacific Islander	5	61.8	0.0	20.00000	20.00000	0.6%
Prefer Not to Answer	4	12.2	7.5	25.00000	0.00000	0.5%
Middle Eastern or North African	1	0.0	0.0	0.00000	0.00000	0.1%

Table 2: Retention by gender: average, median, and percent of total

gender	N	Average	Median	30d_%	90d_%	Percent_of_total
Male	549	140.1	16.0	46.44809	33.69763	62.5%
Female	323	131.3	34.0	50.46440	35.91331	36.8%
Transgender	5	94.6	83.0	60.00000	40.00000	0.6%
Prefer Not to Answer	1	0.0	0.0	0.00000	0.00000	0.1%

Table 3: Retention by legal involvement: average, median, and percent of total

legal	N	Average	Median	30d_%	90d_%	Percent_of_total
No	343	109.7	18.0	45.77259	32.36152	53.4%
Yes	279	114.5	31.0	50.53763	31.89964	43.5%
Unknown	20	103.5	0.5	45.00000	35.00000	3.1%

Table 4: Retention by homelessness status: average, median, and percent of total

homelessflag	N	Average	Median	30d_%	90d_%	Percent_of_total
No	455	134.9	26.0	48.13187	32.74725	63.9%
Yes	257	157.0	39.0	53.30739	39.68872	36.1%

Table 5: Retention by overdose history: average, median, and percent of total

overdose	N	Average	Median	30d_%	90d_%	Percent_of_total
No	611	123.8	20.0	45.99018	31.26023	69.0%
Yes	237	156.0	47.0	53.58650	41.35021	26.7%
Unknown	38	218.1	24.5	47.36842	42.10526	4.3%

What clearly stands out

Clients with a prior overdose history tended to stay longer (average retention days:156, median retention days:47) than those without (average retention days:123.8, median retention days:20). It is also improved by the the statistic test with the p-value less than 0.05. ($p = 0.0433$). Other than that, the retention days are not significantly differed by demographics (age, gender, race/ethnicity), involvement in legal system, history of overdose, and homelessness status.

Below is the visualization showing the retention days distribution of different overdose history

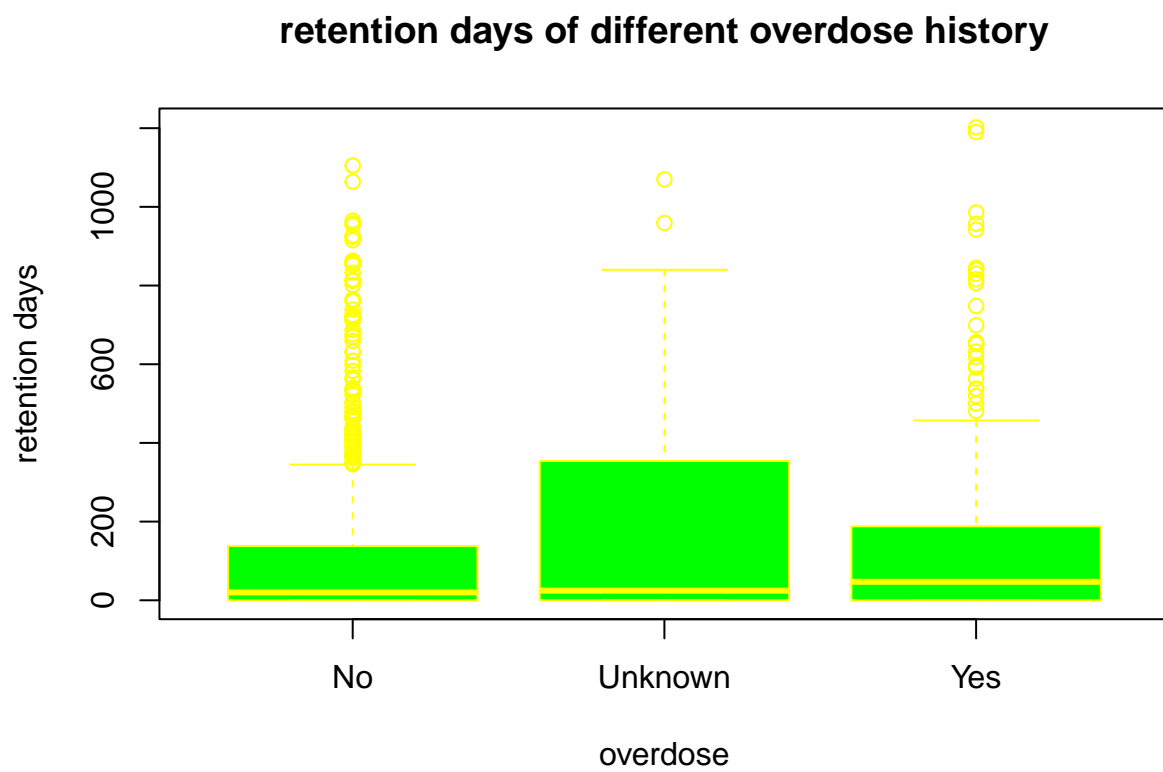


Figure 1: Boxplot of retention days among different overdose groups