Anishinabe Wakiagun Residents' Use of Emergency Services in Hennepin County, Minnesota

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Background.

Anishinabe Wakiagun is a permanent supportive housing program for American Indian men and women who are chronic alcoholics. The program grew out of a need for supportive and culturally appropriate services for the Native American population, which is disproportionately affected by chronic alcoholism, and the desire of the county to find a cost-effective way to delivery emergency services to this population. Similar facilities, such as the Glenwood in Minneapolis and the St. Anthony in St. Paul have shown that stable housing for this population results in a decrease in detox usage.

Anishinabe Wakiagun opened in September 1996. Located near Franklin and Bloomington in south Minneapolis, Wakiagun is operated by the Anishinabe Wakiagun Limited Partnership. It can house up to 40 residents at a time and can accommodate both men and women. Upon admission, residents are expected to be currently exhibiting signs of excessive alcohol use, such as a high number of detox admissions, multiple chemical dependent treatment attempts, physical deterioration or homelessness related to alcohol use, or evidence that the individual is incapable of self-management.

The goal of Anishinabe Wakiagun is to minimize the negative consequences of drinking while providing a stable, culturally appropriate living environment that discourages excessive drinking. Two specific outcome indicators are identified in a contract with Hennepin County Chemical Health Division:

- Clients will reduce their use of detox and the emergency room by 20 percent.
- Client housing will stabilize, with 60 percent of the clients staying longer than 60 days.

This is the third analysis conducted of Anishinabe Wakiagun. The first two analyses, conducted when the program was 6 months, and 19 months old, showed a dramatic decline in detox admissions but a less dramatic decline in emergency room usage.

Resident Profile.

Over the past four years, 154 people have lived at Wakiagun.

- 51 people have moved out and then moved back in (33 percent).
- The average length of stay for each stay is 244 days. The median length of stay is 132 days. Combining all stays for each person, the average length of stay is 368 days, the median is 239 days.
- The average lengths of stay by the year they moved in are 433 days for those who moved in the first year, 335 days for the second year, 323 days for the third year, and 149 days for the fourth year.
- Only 23 people in the course of the first four years did not stay 60 days, one of the goals of the program (15 percent).
- The average age at the time the residents first moved in was 44.5 years old. The median was 43.
- One quarter of the residents were women (26.6 percent). The average length of stay for women was 285 days compared to 399 for men.

- Older residents stay longer. The average length of stay for residents who entered after age 50 was 462 days. For those who entered in their 40s, their average length of stay was 348 days. Those who entered before age 40 had an average length of stay of 335 days.

Usage of Emergency Services Prior to and While at Wakiagun.

The histories of Wakiagun residents were examined from one year prior to their admission to the program through August 31, 2000. This study tests whether residents in this program meet the program's goals of reduced emergency room and detox admissions. This "pre/post" test looks at the number of detox and emergency room admissions for residents in the year prior to joining the program, to their experience while in the program, standardizing their stays to 365 days. In some instances, there is also a comparison of emergency services after residents left the program.

Since the study looks at reductions in emergency services, it is important to first note how many residents actually used these services before moving into the Wakiagun. With no "pre" history, it is impossible to reduce the number of serviced used after moving into Wakiagun.

Fourteen percent have no history of detox use in the year prior to entering Wakiagun and 14 percent have no history of emergency department (ED) use at HCMC in the prior year (not necessarily the same 14 percent).

In previous analyses, there was a larger portion of residents with no detox history before they moved in. At the time of the six month analysis, 30 percent had no detox history in the year prior to moving in. At the time of the 19 month analysis, 35 percent had no detox history. The shift at Wakiagun has been to increasingly take on a population with a history of detox utilization in Hennepin County. For HCMC emergency department admissions, previous studies showed that 23 percent (at 6 months) and 16 percent (at 19 months) had no ED admissions. Again, this suggests that Wakiagun has continued to take on a population that is more medically fragile.

Comparison of Detox Usage Pre and Post Wakiagun Entry

Previous analyses of Anishinabe Wakiagun have shown a significant decline in detox usage once residents move into the facility. This analysis found the same decline in detox usage.[1] In addition, this analysis was able to compare the use of detox for 43 clients who have moved in and out of the Wakiagun several times, comparing their use of detox before they first moved into the Wakiagun, while they were living there, and after they left Wakiagun. The final numbers may somewhat understate the amount of detox they use, because it is unknown whether the clients are still in town or still alive.

Charts 1 and 2 show the change in detox usage for residents once they move into Wakiagun. The findings are dramatic and statistically significant.[2] Average detox admissions declined from 20.7 to 2.3 and median admissions declined from 14.5 to 1.3. These findings compare to earlier analyses, which found that the average number of detox declined from 12.9 to 1.4 (6 months analysis) and from 11.7 to 1.7 (19 month analysis). The difference here is that the clients living at Wakiagun in the past year have even higher detox histories before entering the program than the earliest entrants to the program.

[1] The analysis was done on 62 residents who stayed at Wakiagun at least 90 days.
[2] Significant at the .001 level

Chart 1

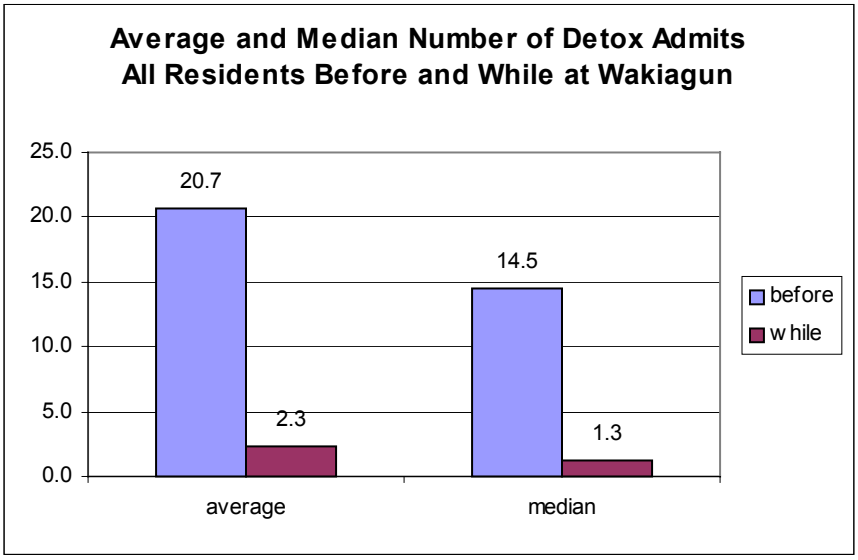
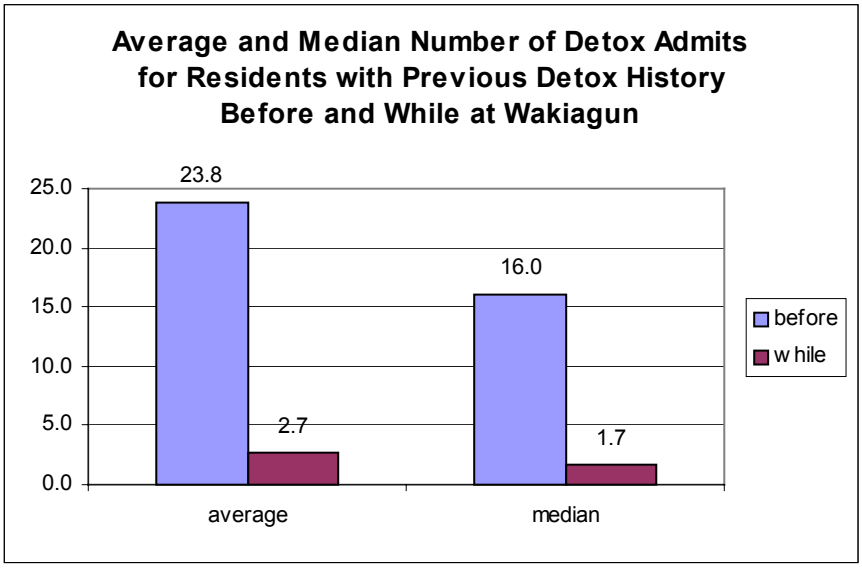


Chart 2



Since Wakiagun has been open for four years now, there are many clients who have moved in and out of Wakiagun several times. This allows us to examine their detox histories between Wakiagun stays and/or after they have left Wakiagun for the last time. Charts 3 and 4 show the change in detox for the 43 residents with at least 90 days at Wakiagun and at least 90 days outside of Wakiagun after they first entered it. The drop in detox for clients while at Wakiagun is dramatic and their detox usage goes up considerably after they leave Wakiagun. Again the difference is statistically significant.

Chart 3

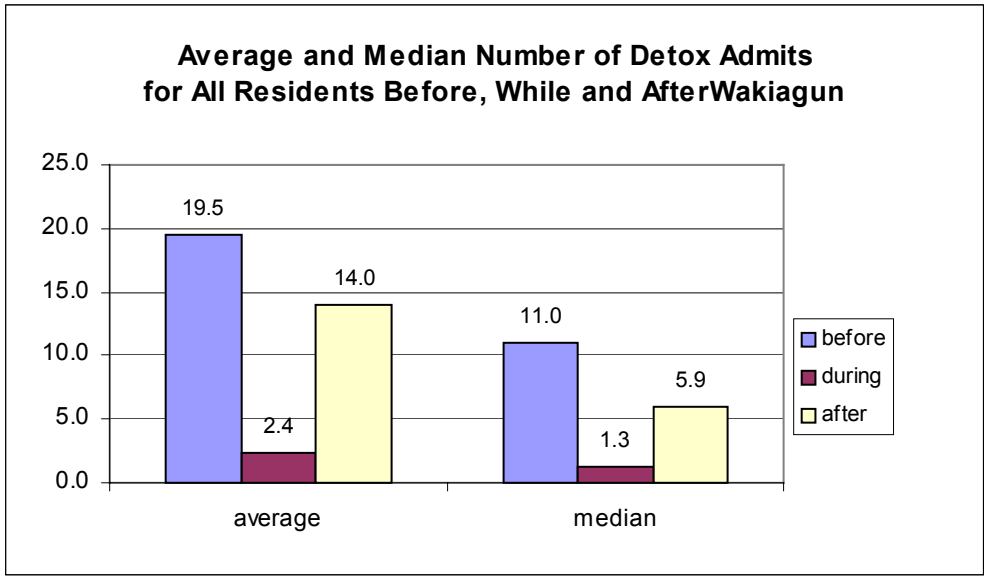
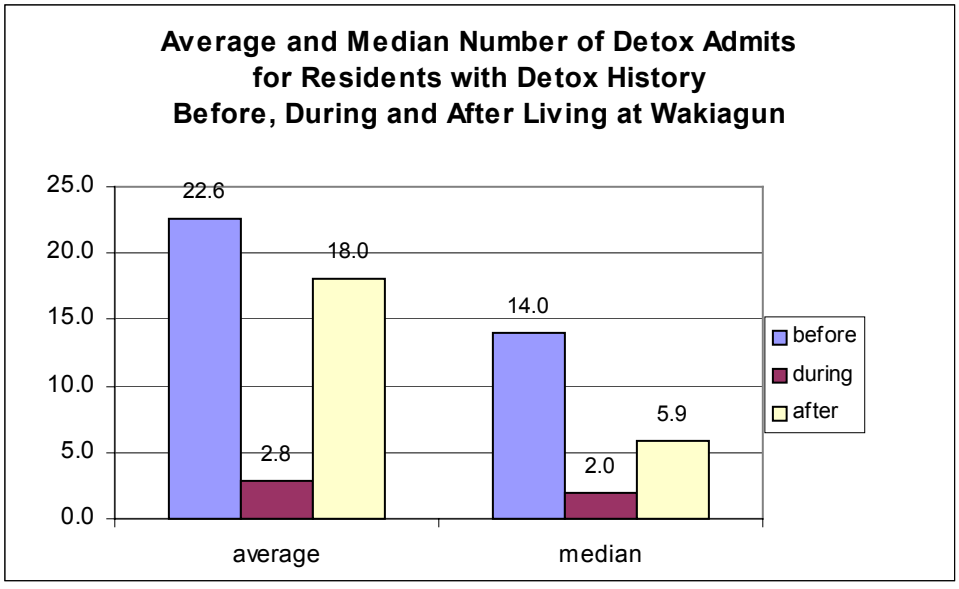


Chart 4



Comparison of Emergency Department Visits Pre and Post Wakiagun Entry

Previous analyses of Wakiagun have shown some reductions in HCMC-Emergency Department (ED) admissions for this population. Another study of health care for chronic inebriates (including Wakiagun residents) showed a reduction in medical visits and hospital visits for the median client, but no overall reduction for the average client.[3]

Charts 5 and 6 show the change in ED usage for residents once they enter the program. The change is relatively minor, with small reductions seen for both the median and average resident. The change is not statistically significantly different.

Chart 5

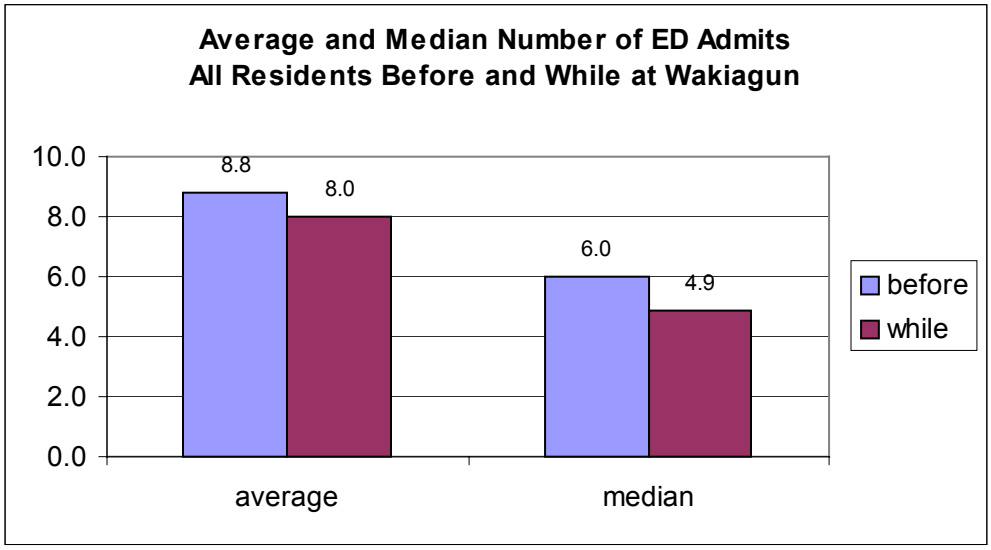
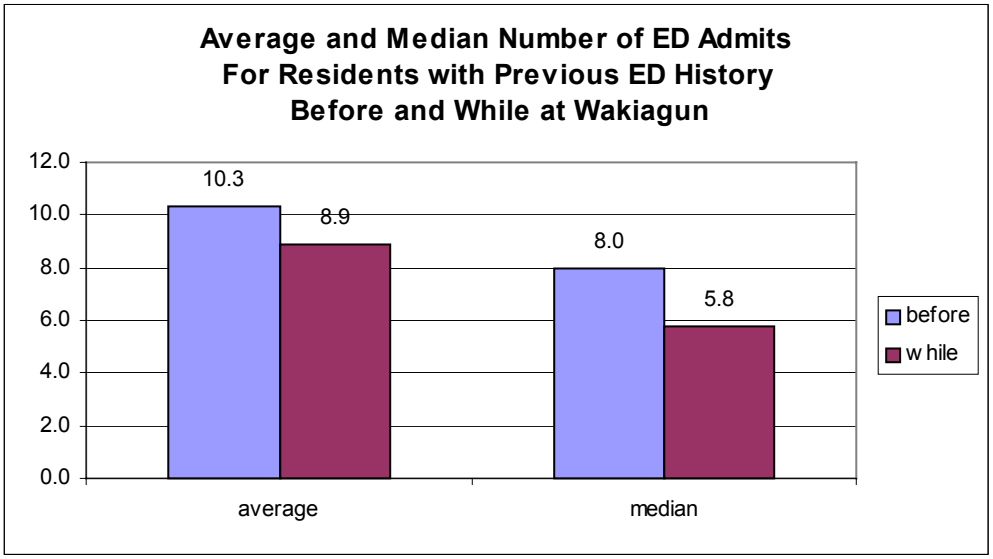


Chart 6



[3] Thornquist, L., Biros, M., Olander, R., Sterner, S, 2001, Health Care Utilization of Chronic Inebriates.

Charts 7 and 8 compare the usage of the emergency department for residents who have sufficient history after moving out of Wakiagun for analysis.

Chart 7

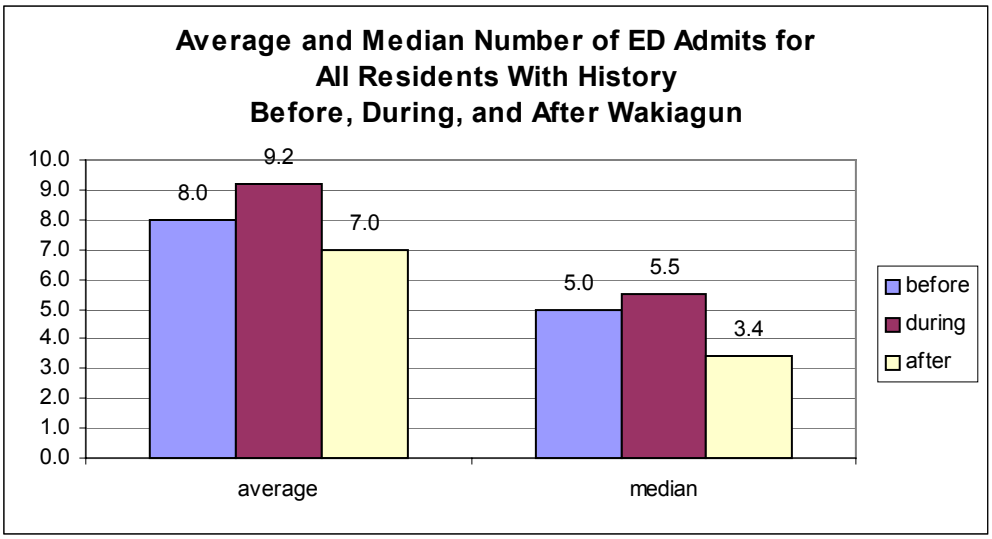
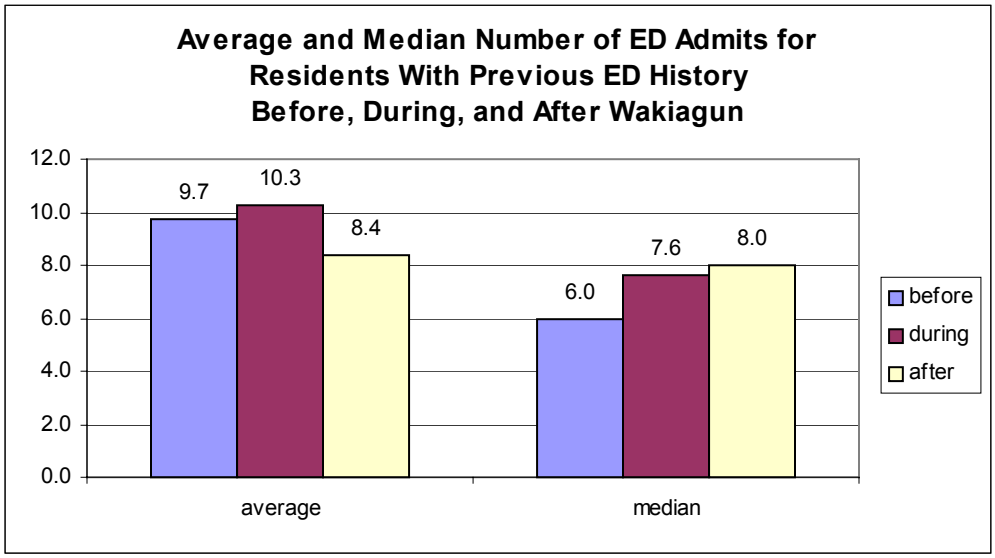


Chart 8



Data on ED visits indicate the primary diagnosis or reason for the visit. These can be categorized as either (1) alcohol intoxication, (2) injury, (3) illness, or (4) other.[4] ED visits were also identified as alcohol-related if any of the diagnoses or presenting complaints indicated alcohol.

[4] The other category most often consists of prescription refills or ambiguous reasons such as "nose bleed" that can either result from injury or illness.

Charts 9 and 10 show the change in ED visits by reason. There was a small decline in alcohol and injury related visits and a small increase in illness-related visits. The differences are not statistically significant, although the direction of the change is in keeping with findings from a more in-depth study of health care costs for this population.[5]

Chart 9

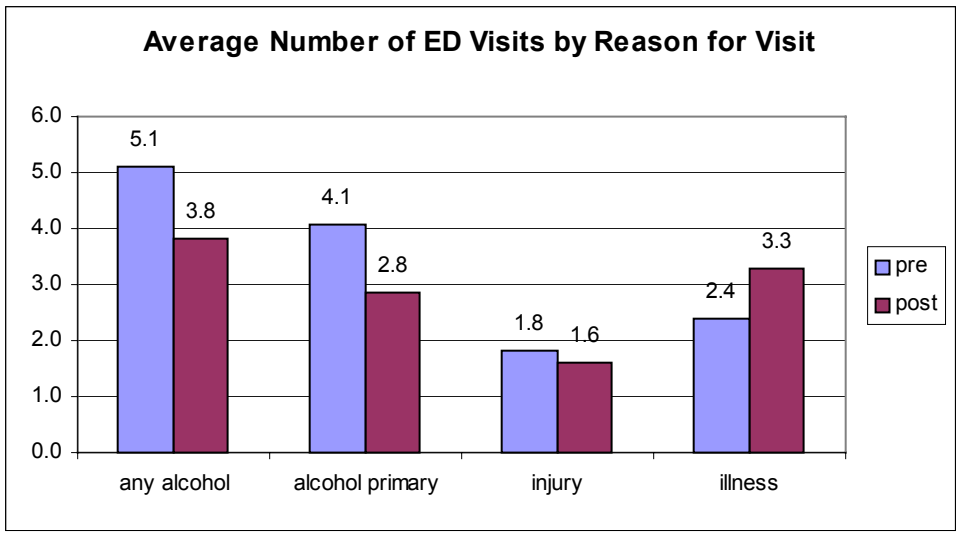
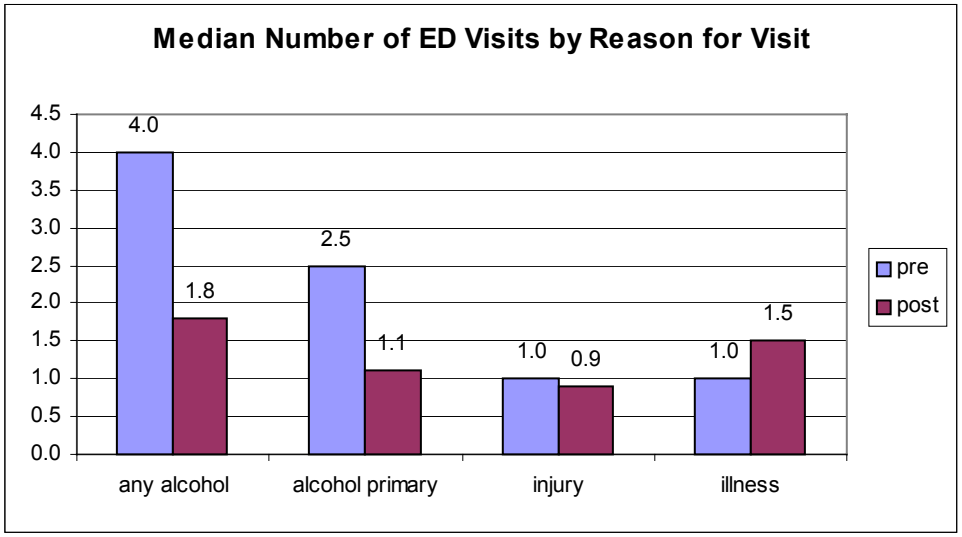


Chart 10



[5] Thornquist, et al., already cited.

Below is an example of the shifts seen at Wakiagun in detox and emergency room use for a single individual. It illustrates the dramatic impact that housing has on detox usage and the weaker impact that housing has on emergency room visits.

Chart 11

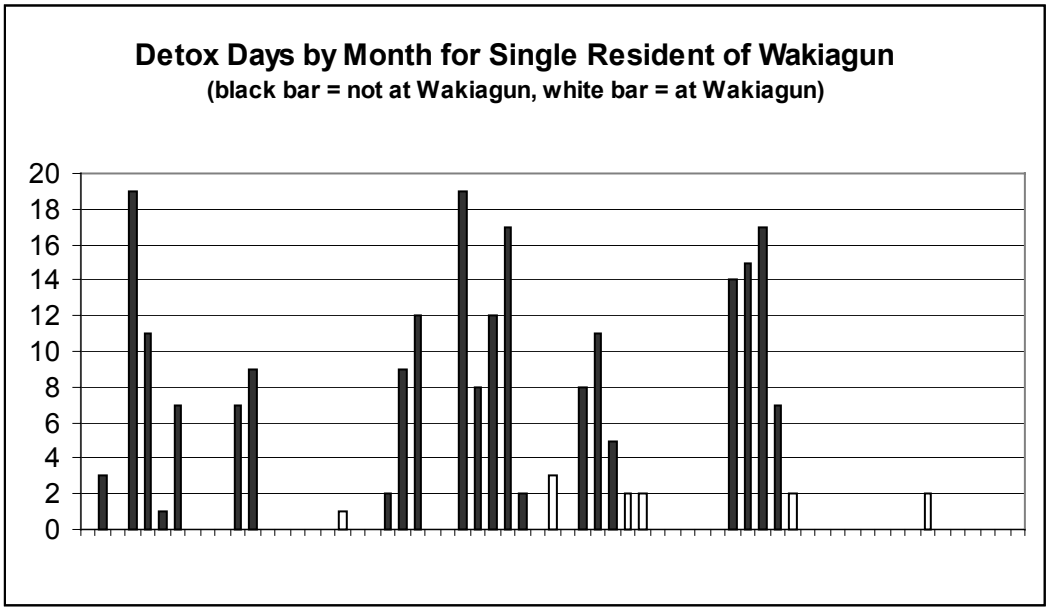
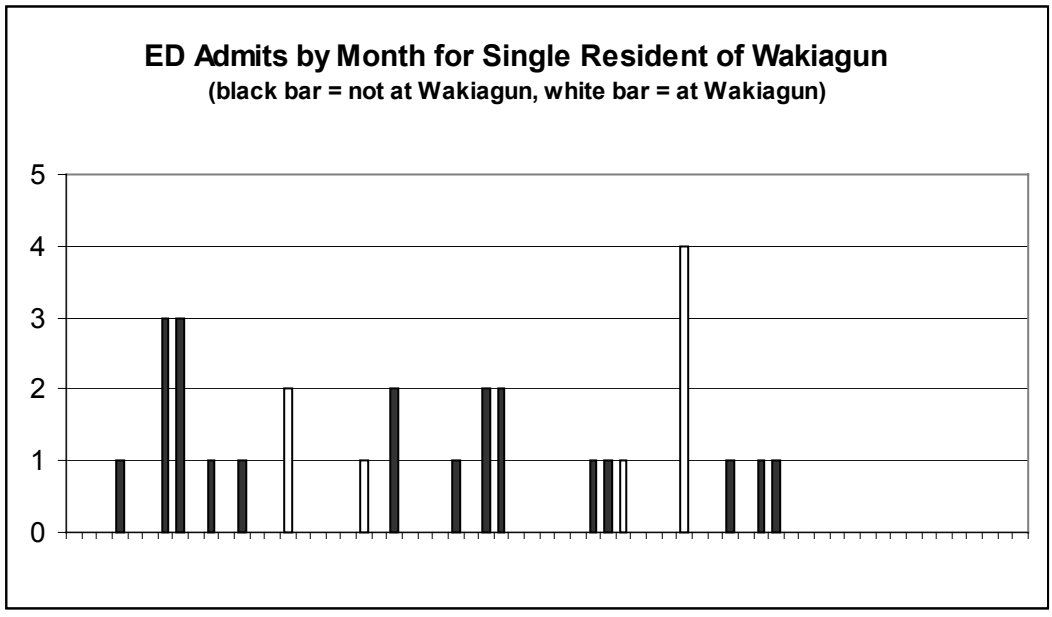


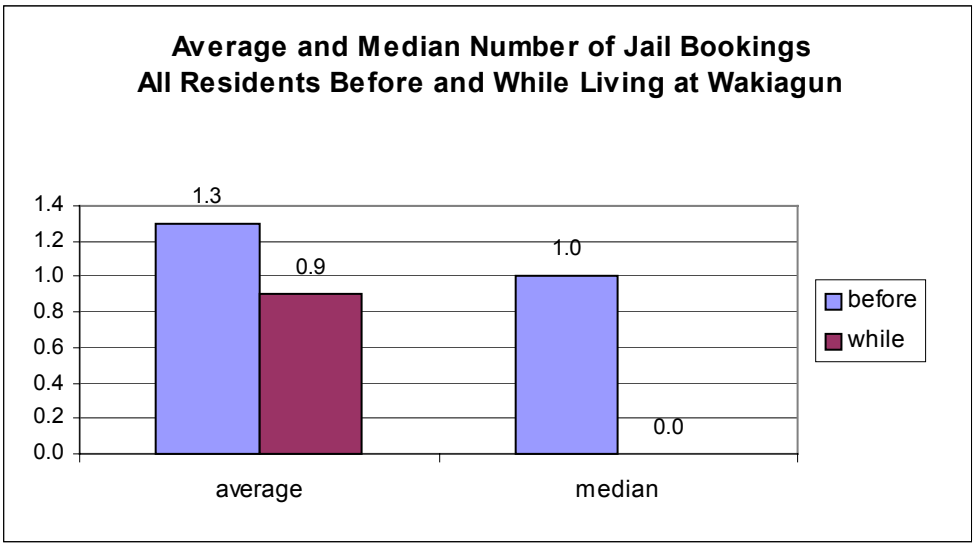
Chart 12



Jail Bookings

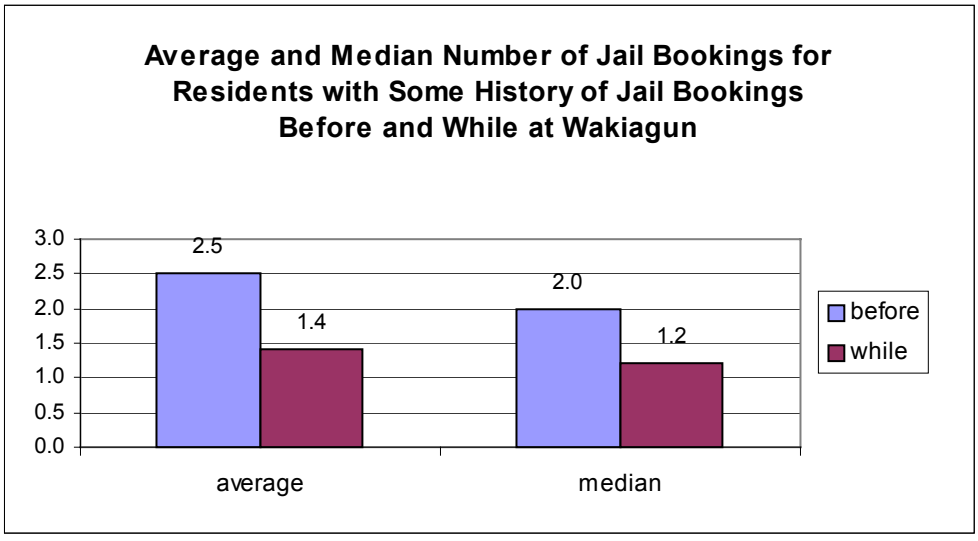
Another "system" that intersects with the chronic inebriate is the criminal justice system. In particular, chronic inebriates are often ticketed or jailed for petty and misdemeanor crimes associated with public intoxication, including loitering and trespassing. These crimes are often not prosecuted, so the main impact on the criminal justice system is in the temporary detention of the person immediately after the offense. Living at Wakiagun produces a statistically significant decline in jail bookings for this population.

Chart 13



For residents who had a history of jail bookings before they entered Wakiagun, there is also a statistically significant decline in jail bookings.

Chart 14



Conclusions

Similar to the findings from previous evaluations of Anishinabe Wakiagun, there continues to be a dramatic decline in detox usage for residents. The impact that housing has on detox utilization is further underscored by the experience of residents who move in and out of Wakiagun. Moving out of Wakiagun brings on a flurry of detox admissions for many residents while moving back into Wakiagun once again decreases the use of detox services.

The finding of much smaller reductions in emergency room admissions is also in keeping with previous studies of Wakiagun. This is a medically fragile population and while housing appears to reduce the number of alcohol-related and injury-related emergency room admissions, there are continuing illness-related visits that housing, by itself, does not impact.

Finally, the reduction in jail bookings for this population is encouraging. It suggests that Wakiagun residents are staying off the street and not getting entangled in the criminal justice system as a result. It is also important to remember that Wakiagun residents saw a reduction in jail bookings during a time when Minneapolis police stepped up efforts to book people for minor "livability" crimes such as loitering and trespassing in an attempt to reduce more serious crime.

Overall, Anishinabe Wakiagun continues to attain the goals that Hennepin County has established for it, including reductions in detox and emergency room admissions along with stability in length of stay at Wakiagun.

Appendix A

Comparisons of Emergency Services Related to Intoxication for Wakiagun Residents 6 months, 19 months, and 48 months after Opening

History of Service Usage Before and After Moving into Wakiagun

	detox			HCMC-ED		
	6 months	19 months	48 months	6 months	19 months	48 months
Percent with No Previous History	30%	35%	14%	23%	16%	14%

Average Use of Emergency Services for all Residents

	6 months		19 months		48 months	
	before	after	before	after	before	after
detox	12.9	1.4	11.7	1.7	20.7	2.3
HCMC-ED	7.1	5.3	7.8	6.6	8.8	8.0

Average Use of Emergency Services for Those with Some History

	6 months		19 months		48 months	
	before	after	before	after	before	after
detox	18.4	2.0	18.0	2.5	23.8	2.7
HCMC-ED	9.2	6.5	9.1	7.4	10.3	8.9