CCJ Veterans Justice Commission

Outcomes from a Jail-Based Veterans Housing Unit

Methodology and Data Sources

The analysis, entitled Outcomes from a Jail-Based Veterans Unit, examined recidivism levels for veterans who participated in a specialized veterans housing unit in a large urban county jail and veterans in the same jail who were not in the unit.

Data Sources

Data were received directly from jail administration. The dataset included demographic information, mental health and substance use disorder status, and charge information on all people booked into the jail from July 2016 to July 2023. Data were organized by charge (the unit of analysis) within a booking; we were provided with booking-level identifiers to group charges and with person-level identifiers to associate bookings with individuals by date.

Methodology

Data Cleaning

Entries that were missing person-level identifiers and/or admission dates were removed as they could not be matched across time. Dummy variables were created to identify people who had been identified as a veteran at any booking and show whether they had ever participated in the Veteran Housing Unit (VHU). We calculated each person's total number of bookings, the number of bookings at which they were identified as a veteran, and the number of times they participated in the VHU.

There were 323 individuals identified as veterans in the dataset. We limited the data to the first booking at which an individual was (a) identified as a veteran, and (b) was admitted for bail or sentencing (eligibility criteria for the unit). Twenty-six veterans admitted for reasons other than bail or sentencing were removed.

An additional 65 veterans were removed for not having a full two years of follow-up time from the release date of the first booking (where they were identified as a veteran and admitted for either bail or sentencing) to the end of the data collection period. One

individual was removed due to an error with their recorded release date. This resulted in a final sample of 231 veterans.

Variable Selection

When estimating the impact of VHU participation on recidivism, we needed to account for any characteristics that may have informed VHU placement. Not accounting for relationships between these variables and VHU placement would confound the outcome of our recidivism analysis. Logistic regression models were used to examine relationships between the following variables for veterans who had participated in VHU compared to veterans who had not:

- Race and ethnicity
- Age at release
- Length of stay (days)
- Behavioral health diagnosis
- Offense level

Race and Ethnicity

Race and ethnicity were represented by a single field provided at the booking level. The categories were "White", "Black", "Hispanic", "Asian", "Other," and "Missing." We collapsed "Other" and "Missing" into one category named "Other/Unknown."

Using a logistic regression model with VHU placement as the dependent variable and race as the independent variable, we did not observe any statistically significant differences between any race group and VHU placement other than for the intercept group of "White" individuals (see Table 1).

Table 1. Race and VHU Placement

	Estimate	Odds Ratio	*p*-value
Intercept (White)	0.612	1.844	<0.001
Black	0.253	1.288	0.573
Hispanic	-0.745	0.475	0.168
Asian	-0.612	0.542	0.545
Other/Unknown	0.081	1.085	0.947

Age at Release

Age at time of release was calculated by combining the age at booking and the length of stay and rounding to the nearest whole number. On average, veterans placed in the VHU were released at about 44 years old, with a 12.4-year standard deviation. Veterans not

placed in the VHU were released at about 48 years old, with an 11.7-year standard deviation.

We observed a statistically significant difference when using a logistic regression model with VHU placement as the dependent variable and age at time of release as the independent variable (see Table 2). On average, for every additional year, the odds of someone being placed in the VHU were lowered by about 3%. This means that younger veterans were more likely to be placed in VHU than older veterans.

Table 2. Age at Release and VHU Placement Status

	Estimate	Odds Ratio	*p*-value
Intercept	1.812	1.704	<0.001
Age at Release (Years)	-0.027	1.0003	0.019

Length of Stay

On average, the length of stay for veterans placed in the VHU was about 160 days, with a 164-day standard deviation. Veterans not placed in the VHU had an average length of stay of about 149 days, with a 260-day standard deviation.

Using a logistic regression model with VHU placement as the dependent variable and length of stay as the independent variable, we did not observe any statistically significant differences (see Table 3).

Table 3. Length of Stay and VHU Placement Status

	Estimate	Odds Ratio	*p*-value
Intercept	0.533	1.704	0.002
Length of Stay (Days)	0.0003	1.0003	0.677

Behavioral Health Diagnosis

Data provided on diagnosed mental health and substance use disorder status were strongly correlated (r = 0.76). To reduce the risk of collinearity in regression analyses, a dummy variable named behavioral health diagnosis was created to indicate that the person had either a mental health disorder diagnosis, a substance use disorder diagnosis, or both.

Using a logistic regression model with VHU placement as the dependent variable and behavioral health diagnosis as the independent variable, we observed a statistically

significant relationship between having a behavioral health diagnosis and being placed in the VHU (see Table 4). On average, the odds for those with a behavioral health diagnosis to be placed in the VHU were about 100% higher compared to those without a behavioral health diagnosis (see Table 2).

Table 4. Behavioral Health Diagnosis and VHU Placement Status

	Estimate	Odds ratio	*p*-value
Intercept	0.3435	1.410	0.0402
Had a Behavioral Health Diagnosis	0.6926	1.999	0.0207

Level of Offense

The final dataset included 104 unique offense codes entered as charge information. We used a statewide offense classification guide produced by the state's sentencing body to categorize each charge by offense level. Offense levels ranged from Level 1 (least serious, including disorderly conduct, trespassing, and threat to commit a crime) to Level 9 (most serious, including manslaughter and murder). This classification was then applied, with the highest charge converted into an offense level for each booking.

Using a logistic regression model with VHU placement as the dependent variable and highest offense level in the booking as the independent variable, we observed a statistically significant relationship between some of the offense levels and VHU placement (not shown). We observed that, on average, those with less serious offenses (levels 1 through 4) were more likely to be placed in the VHU than those with higher level offenses.

We then consolidated offense levels into two groups: "less serious" offense levels (levels 1 through 4) and "more serious" offense levels (levels 5 through 9) due to small and missing cell sizes for certain offense levels. The statistically significant results remained present. On average, the odds for those with "more serious" offense levels to be placed in the VHU were about 77% lower compared to those with "less serious" offense levels (see Table 5).

Table 5. Level of Offense and VHU Placement Status

	Estimate	Odds ratio	*p*-value
Intercept	0.760	2.138	<0.0001
Had a "More Serious" Offense Level (Levels 5-9)	-1.453	0.234	0.0008

Recidivism Analysis

We conducted a survival analysis using a two-year follow-up window. We defined "recidivism" as having a subsequent booking into the jail of any type following release.

We examined re-bookings for all veterans in the sample. Those who had a subsequent booking were marked with a "recidivism indicator," and we calculated the number of days between their release and the admission day for the subsequent booking. Those who had no subsequent bookings during the follow-up period were marked as not having the recidivism indicator and were assigned 730 days as their survival time (the maximum follow-up period).

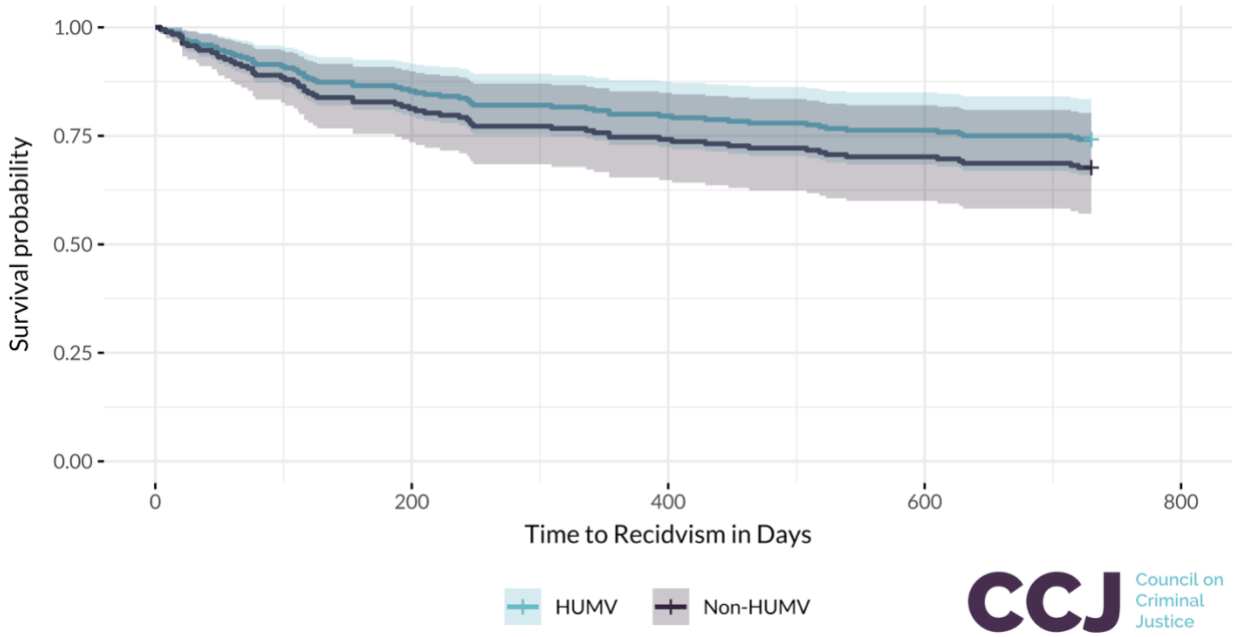
The model controlled for the variables that had statistically significant relationships with VHU placement: age at release, behavioral health diagnosis, and level of offense. There were no statistically significant differences in recidivism between veterans placed in the VHU and veterans not placed in the VHU (see Table 6).

Table 6. Two-Year Recidivism by VHU Placement Status and Covariates

	Estimate	Odds Ratio	*p*-value
VHU placement	-0.268	0.765	0.315
Age at Release (Years)	-0.004	0.996	0.704
Had a Behavioral Health diagnosis	-0.027	0.973	0.920
Had a "More Serious" Offense Level (Levels 5-9)	-0.312	0.732	0.478

Figure 6 presents Kaplan-Meier survival curves estimating the probability of remaining out of custody over a two-year period following release, comparing individuals who participated in the VHU to those who did not. While the figure suggests a slightly higher survival probability (i.e., lower likelihood of returning to jail) among VHU participants, the differences were not statistically significant. This visual pattern aligns with the results in Table 6, which show no significant association between VHU placement and recidivism after adjusting for age at release, behavioral health status, and offense severity.

Figure 6. Survival Probability Estimates by VHU Placement Status



In total, 37 of the 148 veterans who participated in VHU (25.0%) and 26 of the 83 veterans who did not participate in VHU (31.3%) had a subsequent booking into the jail within two years of release. The average time from release to subsequent booking was about 19.4 months for VHU participants and 19.2 months for other veterans in the sample (see Table 7). The differences observed between groups were not statistically significant.

Table 7. Recidivism Summary by VHU Placement

	Recidivated (Number, %)	Days to Recidivism (Mean, SD)
VHU Placement	37 (25.0%)	594 (254)
Not Placed in VHU	26 (31.3%)	587 (241)

Limitations

This study was limited by gaps in program eligibility data and by a narrow set of outcome measures, which together constrain the ability to fully assess the unit's impact.

There were several limitations in VHU eligibility. First, not all people who were identified as veterans were offered participation in the VHU. Veterans may have their criminal charges, disciplinary records, and behavioral health status reviewed, or they may be

interviewed by jail staff to assess their “fit” with the unit. Additionally, we did not receive information on whether all veterans offered VHU participation accepted, or whether some of them chose not to participate. Therefore, we were not able to assess all the potential differences between veterans placed in the VHU and veterans who were not. These differences may have influenced the findings.

Another limitation was the lack of alternative outcomes beyond recidivism. Recidivism was narrowly defined in this study based on data availability and relatively few veterans were re-booked into the jail during the study period, regardless of whether they participated in VHU. Relying on recidivism as the sole outcome of success for the unit alone makes it difficult to fully assess the housing unit’s impact. It is also unclear whether the primary goal of these units broadly and of the VHU unit specifically is to reduce recidivism. Units may fulfill other objectives, such as recognizing military service, strengthening veterans’ personal identity, or promoting positive behavior behind bars.

Finally, we lacked data on post-release service utilization, such as behavioral health disorder treatment, probation or community supervision, and connection to VA health services or other veteran-specific community-based services. Accessing these services after release likely influences whether and when someone returns to jail.