Associations Between the Vulnerability Index-Service Prioritization Decision Assistance Tool and Returns to Homelessness Among Single Adults in the United States

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Abstract

Single adults ages 25 and older represent the largest group of individuals experiencing homelessness in the United States. In a concerted effort to address the complex needs of this population, the U.S. Department of Housing and Urban Development (HUD) requires communities receiving federal funds for homeless services to implement a coordinated entry system. As local supplies of affordable and subsidized housing frequently fail to meet the overwhelming levels of need, communities triage individuals experiencing homelessness to allocate limited housing resources. The Vulnerability Index-Service Prioritization Decision Assistance Tool (VI-SPDAT) is commonly used to accomplish this task.

Using Homeless Management Information System (HMIS) data collected from 16 communities across the United States between 2015 and 2018, this article presents the first comprehensive assessment of the extent to which VI-SPDAT is associated with returning to homelessness less than 1 year following a housing exit to either permanent supportive housing (PSH), rapid re-housing (RRH), family, or self-resolve.

Abstract (continued)

Key findings include: (1) communities appear to follow VI-SPDAT scoring guidelines to match individuals to housing interventions based on level of vulnerability; (2) most single adults served by coordinated entry systems who exit homelessness remain out of the homeless services system for at least 365 days; (3) individuals whose VI-SPDAT score was 8 or higher (making them eligible for PSH) but who were ultimately placed in RRH returned to homelessness at rates three times higher than their counterparts exiting to PSH; (4) returning to homelessness is positively correlated with VI-SPDAT scores regardless of housing type, suggesting that individuals with high vulnerability scores face an overall higher risk of returning to homelessness; (5) disparities in housing outcomes observed among indigenous populations signal the need for more culturally inclusive studies of marginalized groups served by coordinated entry; and (6) planning personal activities beyond survival may decrease an individual's odds of returning to homelessness while trauma or abuse survivors face a greater risk of experiencing recurrent homelessness.

Introduction

On any given night, an estimated 358,000 single adults ages 25 and older experience homelessness in the United States (HUD, 2019a). These individuals represent the largest segment of the population experiencing homelessness and face a complex array of economic, health, and social issues, including intergenerational poverty, chronic health conditions, mental illness, substance use disorders, victimization, and discrimination (Caton et al., 2005; Lee, Tyler, and Wright, 2010; Tsai, 2017). In response, regional or local planning bodies known as Continuums of Care (CoCs) are responsible for coordinating U.S. Department of Housing and Urban Development (HUD) funding for housing and support services. To improve the allocation of limited housing resources to persons experiencing homelessness, HUD requires CoCs to implement a coordinated entry system (HUD, 2014). In the implementation of coordinated entry, communities prioritize individuals for housing and services based on an assessment of mental, physical, and social vulnerabilities. Many communities have adopted the Vulnerability Index-Service Prioritization Decision Assistance Tool (VI-SPDAT) developed by OrgCode Consulting, Inc. and Community Solutions to this end.

This article constitutes the most comprehensive assessment of its kind to date, using Homeless Management Information System data collected across 16 U.S. communities between 2015 and 2018 to explore the association between the VI-SPDAT and returns to homelessness among single adults assessed through coordinated entry systems. This article aims to show the extent to which (1) VI-SPDAT scores are associated with returning to homelessness following an initial exit into housing, (2) returning to homelessness varies by housing destination type and demographic characteristics, and (3) returning to homelessness is associated with individual vulnerabilities as measured by the VI-SPDAT.

Due to the inherent limitations of administrative data, this article does not represent a formal test of the validity of the VI-SPDAT nor an evaluation of specific housing interventions. Rather, this

article offers insights into the implementation of the VI-SPDAT within the context of coordinated entry and the pursuit of housing stability among single adults experiencing homelessness.

Literature Review

Coordinated Entry Systems

As rises in homelessness continue to outpace investments in permanent and affordable housing, CoCs struggle to resolve the housing crises facing their communities. Since 2014, the population of single adults experiencing homelessness has increased by 10 percent, and their rate of chronic homelessness—defined as long-term homelessness coupled with a chronic health condition—has increased by 14.5 percent (HUD, 2019a). In the same time period, investments in permanent housing interventions have increased but continue to fall short of meeting demonstrated need. The national inventory of permanent supportive housing (PSH), a permanently subsidized housing program with intensive support services attached, includes more than 240,000 beds specifically designated for single adults. More than 30,000 such beds are available in rapid re-housing (RRH), a time-limited rental assistance program with temporary support services (HUD, 2019a).

Unable to meet the housing needs of all persons experiencing homelessness, communities must determine how to fairly and equitably allocate limited resources. Since 2012, HUD has required each CoC to implement coordinated entry by standardizing assessment practices and prioritizing the most vulnerable persons to receive available housing resources. Although HUD issues a number of guidelines and requirements for the design and implementation of coordinated entry, CoCs may tailor elements of coordinated entry to the unique needs and characteristics of their communities (HUD, 2014; 2015a; 2015b; 2017; 2019b).

Coordinated entry systems vary across communities with respect to their overall design, the size and composition of their service provider networks, and their housing stock. Individual CoCs may even opt to develop distinct systems focused on specific populations, each with their own designated points of entry, assessment tools, and protocols. These specialized coordinated entry systems are tailored to the unique needs of and resources available to a given subpopulation and may function to specifically serve single adults, families, unaccompanied youth and young adults, veterans, individuals exiting the criminal justice system, and others (HUD, 2015b).

In general, however, single adults experiencing homelessness formally enter the coordinated entry system upon completing a vulnerability assessment (HUD, 2017). Following initial contact with a local service provider or through a resource hotline, an individual is triaged and assessed to determine recommendations for housing and services. The exact timing of the assessment may vary, with some CoCs administering the tool during the very first service interaction or as part of standard program intake procedures. Otherwise, vulnerability assessments are generally administered by direct service providers or community volunteers through street outreach at designated service locations such as drop-in centers or emergency shelters or by phone (HUD, 2017).

Assessment data are subsequently entered into the local HMIS and reviewed by a team of case managers or housing navigators. Individuals recommended to receive a housing intervention are

placed on a waiting list until an appropriate housing opportunity arises (HUD, 2017). Placement and rank on the waiting list are largely determined by the level of vulnerability measured by the assessment, although service providers may consider additional factors or extenuating circumstances beyond the scope of the assessment. Individuals determined to have a low level of vulnerability are referred only to support services (HUD, 2017).

VI-SPDAT

Development

The origins of VI-SPDAT trace back to the 100,000 Homes Campaign, a nationwide effort to house 100,000 vulnerable and chronically homeless individuals between 2010 and 2014 (Montgomery et al., 2016). Led by the non-profit organization Community Solutions, the campaign employed the Vulnerability Index (VI) to identify and measure the risk for premature death faced by individuals experiencing homelessness (Leopold and Ho, 2015). Based on research conducted among individuals accessing services through Boston Health Care for the Homeless (Hwang et al., 1997), risk criteria measured by the VI include age; the number of hospitalizations or emergency room visits; HIV/AIDS status; liver or kidney disease; a history of either frostbite, immersion foot, or hypothermia; and co-occurring behavioral health and chronic medical conditions (Cronley et al., 2013).

To extend the function of the VI from measuring vulnerability to recommending individuals for housing resources, Community Solutions collaborated with OrgCode Consulting to develop the VI-SPDAT in July 2013 (Leopold and Ho, 2015). The VI-SPDAT combines elements from the VI and the Service Prioritization Decision Assistance Tool (SPDAT), the latter of which was also created by OrgCode Consulting, Inc. Although the SPDAT was designed to make specific housing and service recommendations, the VI-SPDAT was conceived to provide communities a method for quickly determining levels of vulnerability and prioritizing individuals for further assessment (OrgCode Consulting, Inc. and Community Solutions, 2015).

The initial version of the VI-SPDAT was predominantly used as part of the 100,000 Homes Campaign, and in response to community feedback on assessing health conditions and past trauma or abuse, the tool was revised and version 2.0 was released in 2015 (OrgCode Consulting, Inc., 2020). Of approximately 400 CoCs in the United States, more than 1 in 4 report implementing the VI-SPDAT (OrgCode Consulting, Inc. and Community Solutions, 2015). However, the authors believe this proportion to be understated, given that usage is voluntarily reported and the VI-SPDAT remains the only tool specifically cited by HUD for coordinated assessment (HUD, 2015a).

Design and Implementation

The VI-SPDAT consists of 34 predominantly yes-or-no items intended to measure an individual's level of vulnerability across four domains: their history of housing and homelessness, individual risk factors, socialization and daily functions, and wellness. Cumulative scores on the VI-SPDAT range from 0 to 16 and correspond with recommendations to assess for specific housing interventions. Scores of 0 to 3 suggest "low" vulnerability and typically result in diverting individuals from subsidized housing programs, although support services may still be offered.

Scores of 4 to 7 suggest "moderate" vulnerability and recommend assessment for RRH, while scores of 8 and above suggest "high" vulnerability and recommend assessment for PSH (OrgCode Consulting, Inc. and Community Solutions, 2015).

The extent to which communities follow or modify these score bands for single adults is largely unknown. In the case of youth and young adults experiencing homelessness, a previous study by Rice et al. (2018) reported that the distribution of housing resources aligned closely with scoring recommendations. Although the study analyzed a dataset featuring the same 16 CoCs represented in the current study, it should be noted that the VI-SPDAT was adapted for transition age youth (TAY) ages 24 and under. Known as TAY-VI-SPDAT (or more commonly as the Next Step Tool), the tool differs in its content due to the distinct experiences and vulnerabilities of young people relative to adults (Rice, 2017). Also, some evidence suggests that some communities adjust the scoring thresholds to prioritize high-intensity interventions for high-vulnerability individuals given the scarcity of housing resources (LAHSA, 2020).

The relationship between the VI-SPDAT score and receiving a housing intervention also remains largely uncertain. In a study of the tool as implemented in Travis County, Texas, VI-SPDAT scores were not associated with selection for a housing intervention or with housing destination type (King, 2018). In San Diego County, California, moderate and high VI-SPDAT scores were significantly associated with establishing eligibility for permanent housing; however, veterans established eligibility at a faster and more frequent rate than non-veterans, regardless of their score (Balagot et al., 2019). In part, these disparate findings point toward variations in how the VI-SPDAT is implemented across individual communities and the complex processes involved in moving individuals from assessment to housing.

Although VI-SPDAT score bands provide a uniform metric by which service providers may initially prioritize individuals for limited housing resources, scoring thresholds are not intended to be rigidly applied in matching individuals with specific housing interventions. OrgCode Consulting, Inc. states that the VI-SPDAT serves as a pre-screening triage tool and an antecedent to more indepth assessment (OrgCode Consulting, Inc. and Community Solutions, 2015). However, this distinction between triage and assessment may be blurred—if not altogether lost—in practice, as a number of communities seemingly rely on VI-SPDAT scores to prioritize individuals for housing (De Jong, 2017; Rice et al., 2018).

Validity and Reliability

In developing the VI-SPDAT, OrgCode Consulting, Inc. (2020) cites extensive consultation and field testing with hundreds of people with lived experience of homelessness in addition to frontline staff. The firm also describes a thorough review of the literature and counsel received from academic researchers, but the tool has not undergone any rigorous psychometric testing. In referencing the VI-SPDAT for coordinated entry systems, HUD emphasizes that the tool is evidence-informed rather than evidence-based (HUD, 2015a).

As part of a mixed methods study in North Carolina, Thomas et al. (2019) analyzed responses to the VI-SPDAT and validated measures for post-traumatic stress disorder (PTSD), physical health,

mental health, and substance abuse among 197 chronically homeless adults. The resulting weak correlations observed suggested poor construct validity, echoing concerns from providers that the tool did not adequately capture client vulnerabilities.

In a single Midwestern CoC, Brown et al. (2018a) analyzed HMIS data featuring 1,495 single adults assessed with the VI-SPDAT between 2014 and 2016. Examining variations in scores and measure items among individuals with multiple assessments, Brown et al. reported poor test-retest and interrater reliability. Regarding its predictive validity, *higher scores trended with a greater risk of returning to the homeless services system* within a 2-year period, but the association was not significant. However, when controlling for score and vulnerability, individuals with short-term rental subsidies were at a significantly greater risk of system re-entry compared with those receiving permanent housing subsidies and with *those in private market housing*. Brown et al. hypothesized that scoring and measure discrepancies observed across multiple tool administrations could be the consequence of inadequate training for tool administrators, social desirability bias among respondents, or service providers misreporting scores to help secure housing for their clients.

Racial and Ethnic Disparities

Service providers administering the VI-SPDAT have expressed concerns regarding its ability to accurately capture the vulnerabilities of specific groups, including individuals fleeing domestic violence and intimate partner abuse, recent immigrants, tribal communities, individuals identifying as lesbian, gay, bisexual, transgender, and queer or other (LGBTQ+), and people of color (Fritsch et al., 2017; LAHSA, 2018; McCauley and Reid, 2020; Wilkey et al., 2019). *Communities note that these vulnerable subpopulations tend to receive low scores discordant with their actual situation, ultimately affecting their ability to access housing resources and achieve housing stability* (Fritsch et al., 2017; Wilkey et al., 2019). Service providers partially attribute the disconnect between measured and observed vulnerability to their ability to establish trust and build rapport with respondents, question wording, and the comfort level of both the administrator and respondent with questions about sensitive topics. Further concerns have been raised about potential racial and ethnic disparities embedded within the tool itself that may contribute to disparities in the allocation of permanent housing resources (Fritsch et al., 2017; Wilkey et al., 2019).

Currently the most extensive exploration of racial disparities in the VI-SPDAT, Wilkey et al. (2019) examined coordinated entry data from four CoCs: Portland-Gresham-Multnomah County in Oregon, Roanoke City and County/Salem in Virginia, Seattle/King County in Washington, and Tacoma/Lakewood/Pierce County in Washington. Overall, study authors observed that people of color received significantly lower prioritization scores than Whites and were 32 percent less likely to receive a high score. White individuals received an assessment for PSH at higher rates than people of color, and most scales indicated a bias toward vulnerabilities Whites were more likely to endorse (including sleeping on the streets, inability to meet basic needs, and substance use). In Travis County, Texas, King (2018) also reported higher scores and higher rates of recommendation for and placement into PSH relative to RRH among Whites.

Moreover, the VI-SPDAT may obscure the effects of intersectionality—the ways in which people experience advantage and disadvantage as a result of a combination of their social and political

identities, including race, gender, sexuality, and class (Crenshaw, 1991). Through this lens, Cronley (2020) investigated how the intersection of race and gender impacted VI-SPDAT scores among women reporting trauma or abuse as the cause of their homelessness. Previous trauma or abuse significantly predicted higher scores, yet White women regularly reported higher scores than Black women despite both indicating similarly higher odds of experiencing trauma or abuse.

Housing Outcomes Among Single Adults Exiting Homelessness

Evaluations of coordinated entry for single adults are limited and consist mostly of CoC system performance measures reported through HMIS and CoC-specific outcome evaluations conducted by local communities (e.g., The Cloudburst Group, 2018; Focus Strategies, 2018; HomeBase, 2018). According to the 2019 National Summary of Homeless System Performance, communities successfully placed 40.8 percent of individuals and families residing in emergency shelter, transitional housing, or RRH programs into a permanent housing destination (HUD, 2019c). Access to subsidized housing, a greater income, and larger social support networks have been identified as predictors of housing stability among single adults experiencing homelessness (Aubry et al., 2016; Boland et al., 2018). In particular, research on the social networks of single adults indicates that family relationships play a key role in facilitating exits from homelessness and in the subsequent sustainment of housing (Henwood et al., 2015; Pickett-Schenk et al., 2007). Conversely, prior involvement in the criminal justice system, substance use issues, unmet basic needs, and being male have all been associated with a failure to achieve housing stability (Aubry et al., 2016; Van Straaten et al., 2016; Volk et al., 2015).

Permanent Supportive Housing

The effectiveness of PSH in promoting stable exits from homelessness is a key topic in the housing intervention literature on single adults. Several randomized controlled trials have produced evidence for how components of PSH reduce the incidence of homelessness and decrease the number of emergency room visits and hospitalizations (Rog et al., 2014). Unfortunately, small sample sizes, inconsistencies in the implementation of housing interventions, and varied levels of rigor have precluded the ability of prior research to draw any firm conclusions on the experiences of various demographic groups in PSH. The few studies examining gender differences in permanent housing programs indicate somewhat mixed results on housing and clinical outcomes (Edens, Mares, and Rosenheck, 2011; Leff et al., 2009; Rog et al., 2014). *However, evidence suggests significant gender differences exist in factors associated with housing stability*, including mental health, social networks, and life goals (Bird et al., 2017; Winetrobe et al., 2017). Studies assessing racial and ethnic disparities are similarly varied in their conclusions, although meta-analyses of PSH research indicate that studies with majority non-White participants experienced less housing stability and less program satisfaction compared with studies comprising mostly White participants (Leff et al., 2009; Rog et al., 2014).

Rapid Re-housing

Only a handful of empirical studies examine housing outcomes among single adults receiving RRH or similar short-term housing subsidies, with most evaluations focusing on families (Gubits

et al., 2018; Spellman et al., 2014). Although studies centered on single adults are limited in their generalizability due to small sample sizes (Brown et al., 2017; 2018b) or a more narrowed focused on veteran subpopulations (Byrne et al., 2016), findings suggest that single adults in RRH experience higher rates of returning to the homeless services system compared with those receiving permanent housing resources.

Current Study

The current study aims to advance the field's understanding of the VI-SPDAT and how the tool is used in the context of their coordinated entry systems to facilitate successful exits from and prevent returns to homelessness among single adults. First, the authors examine the distribution of VI-SPDAT scores of single adults exiting homelessness across various housing destinations—including subsidized housing programs such as PSH and RRH and arrangements in private market housing (e.g., living with family or obtaining housing without public assistance). Second, the authors examine the association between overall VI-SPDAT score and returning to homelessness (i.e., returning to the homeless services system in need of housing less than 365 days following an initial exit from homelessness) across these various housing destinations. Finally, a series of multivariable logistic regressions are conducted to identify specific items within the VI-SPDAT assessment and demographic characteristics associated with returning to homelessness within 365 days of an initial exit.

Methods

Data

The dataset features HMIS data that were accessed, anonymized, and provided to the authors by OrgCode Consulting, Inc. Sourced from 16 CoCs that represent city-level, county-level, and Balance of State (i.e., areas of a state that do not have the resources to establish their own CoC) jurisdictions across the United States, this administrative dataset includes rural, suburban, and urban communities across the northeastern, southern, midwestern, and southwestern regions of the country. These 16 communities agreed to share their data on the condition that OrgCode Consulting, Inc. did not disclose their exact jurisdiction as a safeguard against any possible political fallout resulting from published results on returns to homelessness. In the spirit of this agreement, the current study analyzes only aggregated data across the 16 communities. Data were collected by local service providers administering the VI-SPDAT to single adults age 25 and older experiencing unsheltered homelessness (i.e., living on the streets or in a vehicle, tent, or other place not meant for human habitation).

The dataset includes the demographic characteristics, VI-SPDAT responses, and housing destination details for 25,892 unsheltered single adults assessed between February 2015 and April 2018. Dates recorded in the dataset were used to monitor housing outcomes for a minimum of 365 days following an initial exit from homelessness. These included, whenever applicable, the date the initial VI-SPDAT was administered, the date an individual exited homelessness, and the date an individual returned to the homeless services system in need of housing (i.e., was encountered

during street outreach or presented at an emergency shelter or temporary housing program). The first and final recorded exits from homelessness were February 22, 2015, and March 21, 2018, respectively. The first and final recorded returns to the homeless services system were May 28, 2015, and April 30, 2018, respectively.

Persons reporting a homelessness exit date after April 30, 2017 (i.e., less than 365 days prior to the dataset conclusion date), were removed from the dataset. The use of this metric reduced the sample from 25,892 individuals to 20,613, as individuals who were not observed long enough to assess their success in remaining out of homelessness for at least 365 days were removed. Although someone placed 30 days prior to the close of the observation period who returned to homelessness within that final month could be recorded as an additional return to homelessness, the authors could not likewise presume that a person who did not return within 30 days might not return within 365 days. Thus, a 365-day minimum observation period post-exit from homelessness was required to retain an individual in the analysis.

In addition, only individuals exiting to PSH, RRH, family, or self-resolve, as coded from program exit data, were retained in the final dataset. Individuals who were still pending in the system (n = 4,096), lost to followup (*n* = 1,488), incarcerated (*n* = 880), or deceased (*n* = 868) were excluded, as these distinct outcomes extend beyond the scope of the current study and warrant special investigation. It is worth noting that lost to followup differs from self-resolve in that the last HMIS entry for these individuals was their VI-SPDAT assessment. It is possible that some individuals entered as lost to followup did self-resolve, but because it is not possible to know this with any certainty, these cases were excluded from further analysis. Due to the unique resource and policy contexts for veteran homelessness, the authors also removed individuals placed in HUD-Veterans Affairs Supportive Housing (HUD-VASH) (*n* = 978) or Supportive Services for Veteran Families (SSVF) (*n* = 1,267) programs; a separate examination of coordinated entry outcomes focused specifically on veterans is recommended. A total of 11,036 persons were included in the final analytic sample.

Variables

The dependent variable for this study, returning to homelessness, is defined as an individual re-entering the local homeless services system in need of housing less than 365 days following an initial exit from homelessness into housing.

Independent variables for the current study include the overall VI-SPDAT score, responses to each of the 34 assessment items, key demographic characteristics, and housing destination type. Demographic characteristics include individuals' self-reported age, gender, LGBTQ+ identity (i.e., identifying as LGBTQ+ or with another sexual minority group), and race or ethnicity. Housing destinations include individuals exiting from homelessness to either PSH, RRH, living with family members (family), or independently obtaining private market housing without the assistance of public housing resources (self-resolve). Due to the ongoing development and implementation of coordinated entry and variation in resources over time, the year in which an individual was initially assessed is also included as an independent variable.

Data Analysis

Individuals who returned to the homeless services system less than 365 days following an initial exit were coded as returning to homelessness. This benchmark aligns with HUD performance measures and program evaluations, which regularly emphasize 12-month housing outcomes following either an exit from homelessness or an exit from a housing program (Brown et al., 2017; Brown et al., 2018b; Byrne et al., 2016; Finkel et al., 2016; Gubits et al., 2018; HUD, 2019b).

Multivariable logistic regression models were run to determine whether VI-SPDAT scores or other indicators collected during the assessment were associated with returning to homelessness across different housing destinations. First, the authors conducted five multivariable logistic regressions to examine the associations between overall VI-SPDAT scores and returns to homelessness. These models analyzed the entire sample aggregate of all housing destination types and four subsamples focused on the four distinct destinations: PSH, RRH, family, and self-resolve.

Next, bivariate associations were assessed between returns to homelessness and each individual VI-SPDAT item and demographic characteristics. A full correlation matrix of all variables and an examination of the variance inflation factor (VIF) led to identifying six variables responsible for the same explanation of variance: physical disability, learning or developmental disability, mental health or brain issues, being forced or tricked, owing money, and being physically attacked. The inclusion of more than one of these variables would have led to issues of multi-collinearity. For example, 96.4 percent of responses to developmental disabilities were identical to answers about being "tricked." Thus, only one of the six variables was used in any model. A sensitivity analysis revealed that substituting any one of these variables did not change the substantive results. All other variables which were significant at a p-level of less than .10 in the bivariate analyses were entered into the final multivariable regression models (Hosmer and Lemeshow, 2000). These procedures were also applied to a fifth model aggregating all four housing destinations.

Exhibit 1

Frequency Distributions of Demographic Characteristics (n = 11,036) (1 of 2)

	n (Mean)	% (SD)
Age	(46.9)	(9.6)
Race/Ethnicity		
Black	3,726	33.8
Latinx	232	2.1
White	6,683	60.6
Asian	268	2.4
Native American or Alaska Native	117	1.1
Native Hawaiian or Pacific Islander	9	0.1
Gender Identity		
Female	1,738	15.8
Male	9,256	83.9
Transgender	42	0.4

Exhibit 1

Frequency Distributions of Demographic Characteristics (*n* = 11,036) (2 of 2)

	n (Mean)	% (SD)
LGBTQ+	985	8.9
Pet Owner	883	8.0
Homeless Services and Housing		
Emergency shelter use	8,224	74.5
Nights spent in a shelter in past year	(39.5)	(77.7)
Year VI-SPDAT assessment administered		
2015	5,068	45.9
2016	5,706	51.7
2017	262	2.4
Housing destination		
PSH	7,534	68.3
RRH	2,701	24.5
Family	214	1.9
Self-Resolve	587	5.3
Returned to homelessness within 365 days	3,282	29.7
PSH	2,172	28.8
RRH	830	30.7
Family	70	32.7
Self-Resolve	210	35.8

LGBTQ+ = lesbian, gay bisexual, transgender, queer, or other. PSH = permanent supportive housing. RRH = rapid re-housing. SD = standard deviation. VI-SPDAT = Vulnerability Index-Service Prioritization Decision Tool.

Source: Homeless Management Information System

Exhibit 2

Frequency Distributions of Responses to VI-SPDAT Items (*n* = 11,036) (1 of 2)

	n (Mean)	% (SD)
History of Housing and Homelessness		
Length of homelessness in years	(5.4)	(7.8)
Episodes of homelessness, past 3 years	(1.8)	(2.4)
Risks		
Attacked or beaten up	791	7.2
Threatened/attempted to harm self or others	1,168	10.6
Legal issues	2,054	18.6
Forced or tricked to do things	1,115	10.1
Engage in risky behavior (e.g., exchange sex, run drugs)	1,503	13.6
Number of emergency services used, past 6 months	(38.6)	(25.2)

Exhibit 2

Frequency Distributions of Responses to VI-SPDAT Items (*n* = 11,036) (2 of 2)

	n (Mean)	% (SD)
In the past 6 months, number of…		
Emergency room visits	(7.6)	(6.7)
Ambulance trips to hospital	(2.7)	(4.1)
Crisis services used (e.g., crisis hotlines)	(1.0)	(0.8)
Police interactions	(20.5)	(16.3)
Jail/prison stays	(6.8)	(7.7)
Socialization and Daily Functioning		
Owe money	1,844	16.7
Receive money/income	3,292	29.8
Plan personal activities	5,786	52.4
Able to meet basic needs	5,810	52.7
Homelessness caused by relationship issue	5,349	48.5
Wellness		
Chronic health issue	4,917	44.6
HIV/AIDS	151	1.4
Physical disability	768	7.0
Currently pregnant	36	2.1
Not taking current medication	5,396	48.9
Prescription medication misuse	5,384	48.8
Avoid getting help when sick	5,152	46.7
Difficult to maintain/afford housing due to substance use	5,390	48.8
Mental health or brain issue	809	7.3
Homelessness caused by trauma or abuse	5,195	47.1
Ever lost or struggled to maintain housing due to…		
Physical disability	768	7.0
Mental health issue or concern	5,291	47.9
Past head injury	5,373	48.7
Learning or developmental disability	911	8.3
Substance use	5,546	49.4

SD = standard deviation. VI-SPDAT = Vulnerability Index-Service Prioritization Decision Tool.
Source: Homeless Management Information System

Results

Respondent Characteristics

All individuals in the analytic sample were unsheltered at the time of assessment, meaning they were living on the streets or in a tent, vehicle, or other place not meant for human habitation. The average length of homelessness was 5.4 years (*SD* = 7.8).

The mean age of individuals was 46.9 years (*SD* = 9.6). More than one-half of the sample identified as White (*n* = 6,683, 60.6 percent), followed by Black (*n* = 3,726, 33.8 percent) and Latinx (*n* = 232, 2.1 percent). Individuals identifying as Asian, Native Hawaiian or Pacific Islander, and Native American or Alaska Native comprised 3.6 percent of the total sample (*n* = 394). More than three-fourths (*n* = 9,256, 83.9 percent) of individuals identified as male and 8.9 percent (*n* = 985) identified as LGBTQ+.

Most individuals exited homelessness into either PSH (*n* = 7,534, 68.3 percent) or RRH (*n* = 2,701, 24.5 percent), with fewer exiting to live with family (*n* = 214, 1.9 percent) or to self-resolve (*n* = 587, 5.3 percent). More than two-thirds (*n* = 7,754, 70.3 percent) of individuals did not return to the homeless services system in need of housing within 365 days. Individuals exiting into PSH indicated the lowest rate of returning to homelessness (*n* = 2,172, 28.8 percent), followed by those exiting to RRH (*n* = 830, 30.7 percent), family (*n* = 70, 32.7 percent), and self-resolve (*n* = 210, 35.8 percent).

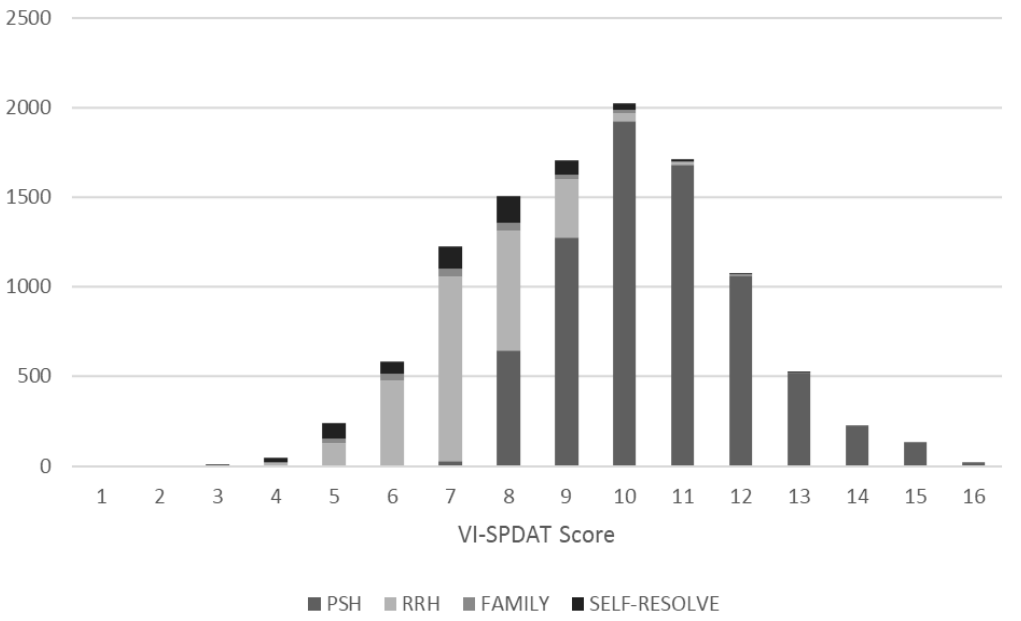
Exhibit 3

Distribution of Housing Destinations by VI-SPDAT Score (*n* = 11,036) (1 of 2)

VI-SPDAT Score	PSH	RRH	Family	Self-Resolve	Total
1		1			1
2					
3		4		4	8
4		18	2	27	47
5	1	125	27	85	238
6	4	474	39	67	584
7	29	1,030	43	123	1,225
8	644	668	46	147	1,505
9	1,277	320	30	78	1,705
10	1,924	44	20	34	2,022
11	1,682	14	5	12	1,713
12	1,066	2	1	5	1,074
13	522	1	1	5	529
14	230				230
15	135				135
16	20				20
Total	**7,534**	**2,701**	**214**	**587**	**11,036**

Exhibit 3

Distribution of Housing Destinations by VI-SPDAT Score (*n* = 11,036) (2 of 2)



PSH = permanent supportive housing. RRH = rapid re-housing. VI-SPDAT = Vulnerability Index-Service Prioritization Decision Tool.
Source: Homeless Management Information System

Distribution of Housing Destinations

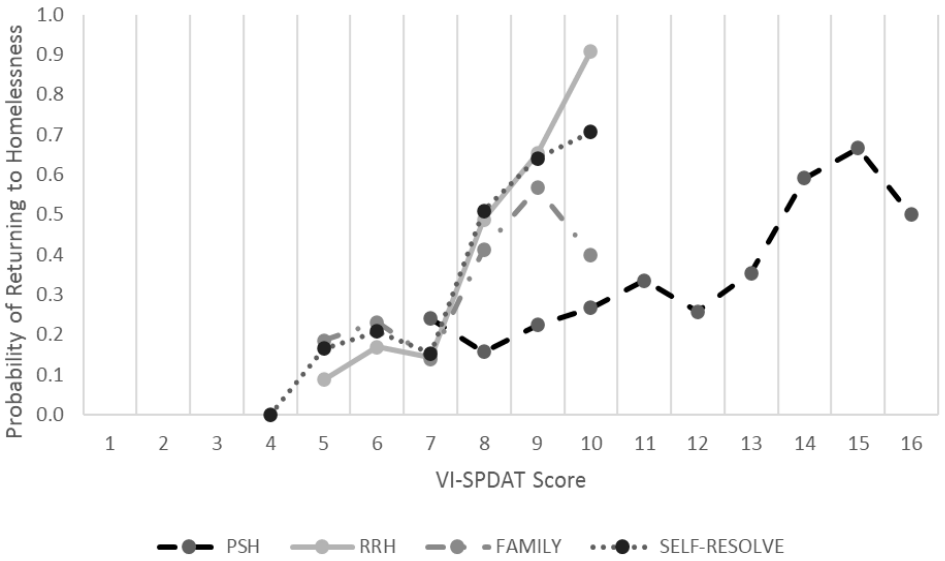
In exhibit 3, the distribution of individuals across housing destinations by VI-SPDAT score provides insights into how communities allocate housing resources according to assessment results. In alignment with VI-SPDAT scoring guidelines, 99.5 percent (***n*** = 7,500) of individuals exiting to PSH scored 8 or higher. Although most (***n*** = 1,647, 61.0 percent) of those exiting to RRH scored between 4 and 7, more than one-third (***n*** = 1,049, 38.8 percent) scored 8 or higher. Among those exiting to family, individuals were split almost evenly between the score bands of 4 and 7 (***n*** = 111, 51.9 percent) and 8 or higher (***n*** = 103, 48.1 percent). A similar trend was observed among individuals who self-resolved, as only 1 percent (***n*** = 4) scored under the established threshold for a formal housing intervention; slightly more than half (***n*** = 302, 51.4 percent) scored between 4 and 7 and 47.9 percent (***n*** = 281) scored 8 or higher.

Exhibit 4

Percentage of Individuals Returning to Homelessness within 365 Days by VI-SPDAT Score (*n* = 11,036)

VI-SPDAT Score	PSH %	RRH %	Family %	Self-Resolve %	Total %
1		[a]			[a]
2					
3		[a]		[a]	[a]
4		[a]	[a]	0.0	0.0
5	[a]	8.8	18.5	16.5	12.6
6	[a]	16.9	23.1	20.9	17.8
7	24.1	14.4	14.0	15.4	14.7
8	15.8	48.8	41.3	51.4	34.7
9	22.5	65.3	56.7	64.1	33.0
10	26.7	90.9	40.0	70.6	29.0
11	33.6	[a]	[a]	[a]	34.4
12	25.8	[a]	[a]	[a]	26.2
13	35.4	[a]	[a]	[a]	35.7
14	59.1				59.1
15	66.7				66.7
16	50.0				50.0
Total	28.8	30.7	32.7	35.8	29.7

[a]*Cell size consisted of less than 20 individuals.*



PSH = permanent supportive housing. RRH = rapid re-housing. VI-SPDAT = Vulnerability Index-Service Prioritization Decision Tool.
Source: Homeless Management Information System

Rates of Returning to Homelessness

Exhibit 4 displays the percentage of individuals returning to the homeless services system following an initial exit from homelessness by VI-SPDAT score. Cells containing a sample size smaller than 20 were omitted from the analysis. Subsequently, only high-scoring (scores 8 or higher) and mid-scoring (scores between 4 and 7) individuals are referenced in the following observations.

The likelihood of returning to homelessness generally increased as vulnerability scores increased. Individuals with a VI-SPDAT score of 8 or higher were less likely to maintain their initial housing destination than those with lower scores. Approximately one-third (32.9 percent) of high-scoring individuals returned to homelessness compared with 15.1 percent of mid-scoring individuals. This trend is sustained across housing destinations, with greater disparities between high- and mid-scoring individuals observed among those exiting to less intensive housing interventions and private market housing. Lower rates of returning to homelessness were achieved through exits to PSH compared with other destinations. Among high-scoring individuals, 28.9 percent returned to homelessness after exiting to PSH compared with 56.2 percent of high-scoring individuals exiting to RRH, 48.5 percent exiting to family, and 58.0 percent exiting to self-resolve. In contrast, 24.1 percent of mid-scoring individuals returned to homelessness after exiting to PSH, as did 14.7 percent exiting to RRH, 18.3 percent exiting to family, and 15.6 percent exiting to self-resolve.

Across exits to RRH, family, and self-resolve, the rate of returning to homelessness rose considerably at a score of 8—the scoring threshold for recommending individuals to PSH. Among individuals exiting to RRH, a second marked increase in the rate of returning to homelessness occurred between scores of 9 and 10 (65.3 to 90.9 percent). Although at first relatively stable across scores, the rate of individuals returning to homelessness from PSH increased between those with scores of 13 and 14 (35.4 to 59.1 percent). Although this rate decreased between the scores of 15 and 16 (66.7 to 50.0 percent), less than 1 percent of individuals exiting to PSH reported the maximum score possible on VI-SPDAT.

Further, individuals scoring 8 or higher but who ultimately exited homelessness to RRH indicated markedly higher rates of returning to homelessness relative to those exiting to PSH. Among individuals with a score of 8 exiting to PSH (n = 644), 15.8 percent returned to homelessness compared with 48.8 percent of those exiting to RRH (n = 668). Among those with a score of 9 exiting to PSH (n = 1,277), 22.5 percent returned to homelessness compared with 65.3 percent of individuals exiting to RRH (n = 320).

Exhibit 5

Adjusted Odds Ratios for Returning to Homelessness Less than 365 Days After Exiting to Housing from Logistic Regressions on VI-SPDAT Score

	AOR[a]	SE	Z	95% CI
All Housing Destinations (*n* = 11,035)	1.19	0.01	14.57	[1.16, 1.22]***
PSH (*n* = 7,533)	1.29	0.02	13.39	[1.24, 1.33]***
RRH (*n* = 2,701)	2.59	0.13	19.36	[2.35, 2.86]***
Family (*n* = 212)	1.53	0.17	3.87	[1.23, 1.90]***
Self-Resolve (*n* = 586)	1.91	0.14	8.92	[1.66, 2.20]***

AOR = adjusted odds ratio. CI = confidence interval. PSH = permanent supportive housing. RRH = rapid re-housing. SE = standard error. VI-SPDAT = Vulnerability Index-Service Prioritization Decision Tool. Z = Z-score.

[a]*Adjusted odds ratio controlling for age, race, gender identity, sexual orientation, and assessment year.*

**p < .05 ; **p < .01 ; ***p < .001*

Source: Homeless Management Information System

Association Between VI-SPDAT Score and Returning to Homelessness

As displayed in exhibit 5, higher VI-SPDAT scores were significantly associated with an increase in the odds of returning to the homeless services system regardless of the housing destination type. Controlling for key demographic characteristics and the year in which the assessment was administered, a one-point increase in VI-SPDAT score was significantly associated with an overall 19 percent increase in the odds of returning to homelessness ($p < .001$). Individuals in RRH were at the highest risk, as each additional point on the VI-SPDAT more than doubled their likelihood of returning to homelessness (Adjusted Odds Ratio [AOR] = 2.59, $p < .001$). Among those exiting to PSH, increasing scores were associated with a 29 percent increase in the odds of returning to homelessness ($p < .001$), compared with 53 percent and 91 percent among those exiting to family ($p < .001$) and self-resolve ($p < .001$), respectively.

Exhibit 6

Multivariable Logistic Regression Model of Returning to Homelessness Less than 365 Days After Exiting to Housing (*n* = 11,035) (1 of 2)

	OR	SE	Z	95% CI
Demographics				
Age	1.01	0.01	2.80	[1.00, 1.01]**
Race (Ref. White)				
Black	1.00	0.05	0.01	[0.91, 1.10]
Latinx	0.75	0.11	-1.85	[0.56, 1.02]
Asian	0.92	0.13	-0.62	[0.69, 1.21]
Native American or Alaska Native	1.70	0.33	2.73	[1.16, 2.50]**
Native Hawaiian or Pacific Islander	0.95	0.69	-0.06	[0.23, 3.90]
Gender (Ref. Male)				
Female	0.83	0.06	-2.59	[0.72, 0.95]*
Transgender	0.82	0.28	-0.58	[0.43, 1.59]
Pet owner	1.19	0.09	2.26	[1.02, 1.38]*

Exhibit 6

Multivariable Logistic Regression Model of Returning to Homelessness Less than 365 Days After Exiting to Housing (n = 11,035) (2 of 2)

	OR	SE	Z	95% CI
Homeless Services				
Nights spent in a shelter	1.00	0.01	0.08	[0.99, 1.00]
Housing Destination (Ref. PSH)				
RRH	1.62	0.11	7.18	[1.42, 1.85]***
Family	1.75	0.28	3.53	[1.28, 2.40]***
Self-Resolve	2.02	0.21	6.93	[1.66, 2.47]***
Homelessness History				
Length of homelessness	1.01	0.01	3.00	[1.00, 1.01]**
Episodes of homelessness	1.09	0.01	9.64	[1.08,1.12]***
Risks				
Legal issues	1.35	0.08	4.75	[1.19, 1.53]***
Engage in risky behaviors	1.16	0.07	2.31	[1.02, 1.32]*
Number of ambulance trips	1.01	0.01	2.17	[1.00, 1.02]*
Number of police interactions	1.00	0.01	2.62	[1.00, 1.01]**
Socialization and Daily Functioning				
Plan personal activities	0.71	0.03	-7.57	[0.65, 0.78]***
Able to meet basic needs	0.74	0.03	-6.61	[0.68, 0.81]***
Homeless due to relationship issue	1.34	0.06	6.58	[1.23, 1.46]***
Wellness				
Chronic health issues	1.16	0.05	3.35	[1.06, 1.26]**
Not taking current medications	1.09	0.05	1.91	[1.00, 1.18]
Prescription medication misuse	1.14	0.05	2.99	[1.05, 1.24]**
Avoid getting help when unwell	1.15	0.05	3.27	[1.06, 1.25]**
Substance use (housing loss)	1.26	0.06	5.35	[1.16, 1.38]***
Substance use (current barrier)	1.24	0.05	4.90	[1.14, 1.35]***
Trauma or abuse	1.39	0.07	6.61	[1.26, 1.54]***
Mental health issue	1.24	0.05	4.95	[1.14, 1.36]***
Past head injury	1.20	0.05	4.15	[1.10, 1.31]***
Learning or developmental disability	1.75	0.15	6.49	[1.48, 2.07]***
Pseudo R^2	*0.04*			

CI = confidence interval. OR = odds ratio. PSH = permanent supportive housing. RRH = rapid re-housing. SE = standard error. Z = Z-score.

**p < .05 ; **p < .01 ; ***p < .001*

Source: Homeless Management Information System

Factors Associated with Returns to Homelessness

The multivariable logistic regression models in exhibits 6 through 10 display the associations that individual assessment items and demographic characteristics demonstrated with returns to homelessness. Individuals initially exiting homelessness to either PSH, RRH, family, or self-resolve are represented in exhibit 6. Identifying as female was associated with a 17-percent decrease in

the odds of returning to homelessness relative to identifying as male (p = .01). Meeting one's basic needs (OR = 0.74, p < .001) and planning personal activities beyond survival (OR = 0.71, p < .001) were also significantly associated with decreased odds of returning to homelessness. Compared with exiting to PSH, higher odds of returning to homelessness were associated with exiting to RRH (OR = 1.62, p < .001), family (OR = 1.75, p < .001), and self-resolve (OR = 2.02, p < .001).

As displayed in exhibit 6, for every 1-year increase in age, individuals experienced a 38-percent increase in the odds of returning to homelessness (p = .01). Those identifying as Native American or Alaska Native faced a 70-percent increase in the odds of returning to homelessness relative to those identifying as White (p = .006). Although the duration and incidence of homelessness were marginally significant, higher rates of risk were associated with numerous physical and behavioral health issues, including learning or developmental disabilities (OR = 1.75, p < .001), past trauma or abuse (OR = 1.39, p < .001), and current substance use (OR = 1.26, p < .001).

Exhibit 7

Multivariable Logistic Regression Model of Returning to Homelessness Less than 365 Days After Exiting to Permanent Supportive Housing (n = 7,533) (1 of 2)

	OR	SE	Z	95% CI
Demographics				
Race (Ref. White)				
Black	1.04	0.06	0.68	[0.93, 1.15]
Latinx	0.93	0.16	-0.45	[0.66, 1.29]
Asian	1.02	0.19	0.11	[0.70, 1.48]
Native American or Alaska Native	1.44	0.49	1.09	[0.74, 2.80]
Native Hawaiian or Pacific Islander	2.04	2.07	0.70	[0.28, 14.83]
Gender (Ref. Male)				
Female	0.96	0.07	-0.57	[0.82, 1.11]
Transgender	0.77	0.31	-0.65	[0.36, 1.68]
LGBTQ+	1.20	0.12	1.93	[1.00, 1.45]
Pet owner	1.20	0.10	2.12	[1.01, 1.41]*
Homeless Services				
Nights spent in a shelter	1.00	0.01	-0.16	[1.00, 1.00]
Homelessness History				
Length of homelessness	1.01	0.01	4.31	[1.01, 1.02]**
Risks				
Legal issues	1.17	0.08	2.30	[1.02, 1.34]*
Engage in risky behaviors	1.01	0.07	0.09	[0.87, 1.16]
Number of ambulance trips	1.01	0.01	1.07	[0.99, 1.02]
Number of jail/prison stays	1.01	0.01	2.19	[1.00, 1.01]*
Socialization and Daily Functioning				
Receive money/income	0.88	0.06	-1.88	[0.77, 1.01]
Plan personal activities	0.83	0.04	-3.48	[0.75, 0.92]**
Able to meet basic needs	0.84	0.04	-3.27	[0.76, 0.93]**
Homeless due to relationship issue	1.15	0.06	2.59	[1.03, 1.27]*

Exhibit 7

Multivariable Logistic Regression Model of Returning to Homelessness Less than 365 Days After Exiting to Permanent Supportive Housing (*n* = 7,533) (2 of 2)

	OR	SE	Z	95% CI
Wellness				
HIV/AIDS	1.10	0.23	0.47	[0.73, 1.66]
Substance use (housing loss)	1.15	0.06	2.64	[1.04, 1.27]**
Substance use (current barrier)	1.16	0.06	2.75	[1.04, 1.28]**
Trauma or abuse	1.18	0.07	2.65	[1.04, 1.34]**
Learning or developmental disability	1.86	0.19	6.12	[1.52, 2.27]**
Pseudo R^2	0.02			

CI = confidence interval. HIV/AIDS = human immunodeficiency virus/acquired immunodeficiency syndrome. LGBTQ+ = lesbian, gay bisexual, transgender, queer, or other. OR = odds ratio. SE = standard error. Z = Z-score.

**p < .05 ; **p < .01 ; ***p < .001*

Source: Homeless Management Information System

As displayed in exhibit 7, individuals initially exiting homelessness to PSH were more likely to return to homelessness if they lived with a learning or developmental disability (OR = 1.86, $p <$ .001), owned a pet (OR = 1.20, p = .03), or experienced past trauma or abuse (OR = 1.18, $p =$ .008). Individuals who were able to meet their subsistence needs (OR = 0.84, $p <$ .001) or to plan personally fulfilling activities (OR = 0.83, $p <$ .001) were less likely to return to homelessness. Identifying as LGBTQ+ was positively associated with returning to homelessness, but non-significant as the p-value was not less than .05.

Exhibit 8

Multivariable Logistic Regression Model of Returning to Homelessness Less than 365 Days After Exiting to Rapid Re-Housing (*n* = 2,701) (1 of 2)

	OR	SE	Z	95% CI
Demographics				
Age	1.02	0.01	3.12	[1.00, 1.03]**
Race (Ref. White)				
Black	0.85	0.09	-1.49	[0.69, 1.05]
Latinx	0.41	0.17	-2.10	[0.18, 0.94]*
Asian	0.73	0.19	-1.22	[0.43, 1.21]
Native American or Alaska Native	1.83	0.55	2.04	[1.02, 3.29]*
Native Hawaiian or Pacific Islander	0.51	0.61	-0.56	[0.05, 5.27]
Homeless Services				
Nights spent in a shelter	1.00	0.01	0.90	[1.00, 1.00]
Homelessness History				
Episodes of homelessness	1.10	0.01	8.60	[1.08, 1.13]***
Risks				
Legal issues	1.86	0.29	3.91	[1,36, 2.54]***
Forced or tricked to do things	2.28	0.68	2.74	[1.26, 4.11]**
Number of police interactions	1.01	0.01	2.36	[1.00, 1.01]*

Exhibit 8

Multivariable Logistic Regression Model of Returning to Homelessness Less than 365 Days After Exiting to Rapid Re-Housing (*n* = 2,701) (2 of 2)

	OR	SE	Z	95% CI
Socialization and Daily Functioning				
Receive money/income	0.51	0.05	-6.60	[0.42, 0.63]***
Plan personal activities	0.48	0.05	-7.47	[0.40, 0.59]***
Able to meet basic needs	0.50	0.05	-7.12	[0.41, 0.60]***
Homeless due to relationship issue	1.96	0.19	7.10	[1.63, 2.36]***
Wellness				
Chronic health issue	1.48	0.14	4.15	[1.23, 1.78]***
Prescription medicine misuse	1.40	0.13	3.69	[1.17, 1.68]***
Avoid seeking help when unwell	1.52	0.14	4.45	[1.26, 1.83]***
Substance use (housing loss)	1.64	0.16	5.12	[1.36, 1.98]***
Substance use (current barrier)	1.46	0.14	3.94	[1.21, 1.77]***
Trauma or abuse	1.82	0.18	6.20	[1.51, 2.20]***
Mental health issue	1.82	0.18	6.10	[1.50, 2.21]***
Past head injury	1.47	0.14	4.02	[1.22, 1.78]***
Pseudo R^2	0.11			

CI = confidence interval. OR = odds ratio. SE= standard error. Z= Z-score.
**p < .05 ; **p < .01 ; ***p < .001*
Source: Homeless Management Information System

As displayed in exhibit 8, among those exiting homelessness to RRH, Native American and Alaska Native individuals (*n* = 52) experienced an 83-percent increase in the odds of returning to homelessness relative to Whites ($p = .04$); individuals identifying as Latinx (*n* = 50) faced significantly less odds (OR = 0.41, $p = .04$). Individuals who were tricked or forced to do things (OR = 2.28, $p = .006$) or having legal issues (OR = 1.86, $p < .001$) were among the most vulnerable for returning to homelessness from RRH. Receiving some form of income (OR = 0.51, $p < .001$), meeting basic needs (OR = 0.50, $p < .001$), and planning personal activities (OR= .48, $p < .001$) were associated with decreasing an individual's odds of returning to homelessness.

Exhibit 9

Multivariable Logistic Regression Model of Returning to Homelessness Less than 365 Days After Exiting to Family (*n* = 212) (1 of 2)

	OR	SE	Z	95% CI
Demographics				
Race (Ref. White)				
Black	0.75	0.30	-0.73	[0.35, 1.62]
Latinx	-	-	-	-
Asian	1.53	1.18	0.55	[0.34, 6.91]
Native American or Alaska Native	2.24	1.63	1.11	[0.54, 9.30]
Native Hawaiian or Pacific Islander	-	-	-	-

Exhibit 9

Multivariable Logistic Regression Model of Returning to Homelessness Less than 365 Days After Exiting to Family (*n* = 212) (2 of 2)

	OR	SE	Z	95% CI
Homelessness History				
Length of homelessness	2.23	0.76	2.35	[1.14, 4.36]*
Episodes of homelessness	1.19	0.06	3.43	[1.08, 1.32]**
Risks				
Crisis services	0.66	0.14	-1.91	[0.44, 1.01]
Socialization and Daily Functioning				
Homeless due to relationship issue	1.57	0.55	1.27	[0.78, 3.12]
Wellness				
Prescription medication misuse	1.82	0.61	1.77	[0.94, 3.53]
Substance use (housing loss)	1.63	0.55	1.46	[0.85, 3.15]
Past head injury	2.24	0.77	2.33	[1.14, 4.41]*
Pseudo R^2	*0.16*			

CI = confidence interval. OR = odds ratio. SE= standard error. Z= Z-score.

**p < .05 ; **p < .01 ; ***p < .001*

Source: Homeless Management Information System

As displayed in exhibit 9, individuals exiting homelessness to live with family experienced a 19-percent increase in the odds of returning to homelessness for every additional episode reported in the past 3 years (p = .001) and were more than twice as likely to return to the system for every additional year of homelessness (OR = 2.23, p = 0.02). Individuals who previously struggled to maintain housing due to a head injury were also more than twice as likely to return to homelessness (OR = 2.24, p = .02).

Exhibit 10

Multivariable Logistic Regression Model of Returning to Homelessness Less than 365 Days After Exiting to Self-Resolve (*n* = 587) (1 of 2)

	OR	SE	Z	95% CI
Demographics				
Race (Ref. White)				
Black	1.46	0.32	1.73	[0.95, 2.23]
Latinx	0.26	0.32	-1.11	[0.02, 2.85]
Asian	0.80	0.40	-0.44	[0.30, 2.14]
Native American or Alaska Native	1.07	0.64	0.11	[0.33, 3.46]
Native Hawaiian or Pacific Islander	-	-	-	-
Homelessness History				
Episodes of homelessness	1.05	0.03	2.06	[1.00, 1.11]*
Risks				
Owe money	1.78	0.58	1.77	[0.94, 3.37]

Exhibit 10

Multivariable Logistic Regression Model of Returning to Homelessness Less than 365 Days After Exiting to Self-Resolve (*n* = 587) (2 of 2)

	OR	SE	Z	95% CI
Socialization and Daily Functioning				
Receive money/income	0.68	0.14	-1.86	[0.45, 1.02]
Plan personal activities	0.45	0.09	-4.19	[0.31, 0.66]***
Basic needs met	0.69	0.14	-1.88	[0.47, 1.01]
Homeless due to relationship issue	1.57	0.30	2.35	[1.11, 2.38]*
Wellness				
Not taking current medications	1.83	0.35	3.19	[1.26, 2.67]**
Substance use (housing loss)	1.46	0.29	1.92	[0.99, 2.16]
Substance use (current barrier)	1.32	0.26	1.42	[0.90, 1.93]
Trauma or abuse	1.95	0.38	3.45	[1.34, 2.86]**
Pseudo R^2	*0.11*			

CI = confidence interval. OR = odds ratio. SE= standard error. Z= Z-score.
**p < .05 ; **p < .01 ; ***p < .001*
Source: Homeless Management Information System

As displayed in exhibit 10, for individuals who self-resolved their homelessness through private market housing, engaging in personally fulfilling activities (OR = 0.45, $p < .001$) was negatively associated with returning to homelessness. Those individuals at the highest risk of returning to the homeless services system included those whose homelessness was caused by trauma or abuse (OR = 1.95, $p = .001$) and those reporting not taking currently prescribed medication (OR = 1.83, $p = .001$).

Discussion

Several key findings emerge from the current study, which to the authors' knowledge, is the first large-scale longitudinal analysis of the relationship between vulnerability assessments and returning to homelessness among single adults. First, communities appear to allocate housing interventions per the scoring thresholds recommended within the VI-SPDAT (OrgCode Consulting, Inc. and Community Solutions, 2015). Although communities may consider individual factors and circumstances beyond vulnerability score, PSH was allocated almost exclusively to high-scoring individuals and RRH was predominantly allocated to mid-scoring individuals. The allocation of RRH to some high-scoring individuals, particularly to those at the lower end of the threshold with scores of 8 or higher, suggests that some communities may adjust score bands to ration scarce housing resources. These findings resonate with those reported by Rice et al. (2018) for youth vulnerability scores and housing placements, which is not wholly unexpected given that both studies used data from the same 16 communities.

Second, a minority of those who were placed into PSH or RRH returned to homelessness within 365 days. Overall, more than two-thirds (70.3 percent) of individuals maintained their housing for at least 1 year. However, rates of remaining out of the homeless services system diminished as individuals indicated higher levels of vulnerability. The risk of returning to homelessness grew as

housing destinations became increasingly removed from social services and supports. Relative to individuals exiting homelessness into PSH, those housed in RRH, with family, or who otherwise self-resolved their homelessness were significantly more likely to return to the homeless services system within 1 year. These findings support prior research that single adults struggle to maintain their housing in the absence of permanent, affordable housing opportunities and stronger social support networks (Aubry et al., 2016; Boland et al., 2018).

Third, individuals whose VI-SPDAT score met the threshold for referral to PSH (8 or above) but who were ultimately placed in RRH returned to homelessness at a rate three times higher than their counterparts who exited homelessness into PSH. Although short-term success was observed among most high-scoring youth placed in RRH (Rice et al., 2018), the current study indicates that such lower-intensity housing destinations may be a less viable alternative in promoting the housing stability of single adults, given their higher rates of returning to homelessness relative to youth. This finding is reinforced by prior research by Brown et al. (2018a), who reported that single adults receiving short-term rental subsidies were at a greater risk of returning to the homeless services system compared with both those receiving permanent housing subsidies or living in private market housing.

Fourth, higher vulnerability scores were significantly associated with returns to homelessness regardless of housing destination type. Across all four housing destinations, the authors observed a positive association between VI-SPDAT score and returning to homelessness within 365 days. Although communities are expected to prioritize more vulnerable individuals for housing interventions, the expectation that all these individuals will maintain their initial housing resource may be unreasonable. Approximately 30 percent of individuals who received either PSH or RRH returned to the homeless services system in need of housing within a year, and the higher their VI-SPDAT score, the more likely they were to return to homelessness after their initial housing placement. These findings echo those reported by Rice et al. (2018), who observed similar associations among youth.

However, the findings in this study are contrary to those of Brown et al. (2018a), who reported no association between VI-SPDAT score and returns to the homeless services system in a single CoC. This indicates potential community-level differences at play. It is worth noting that although this association was statistically significant in the current study, the percentage of variance explained by the models is relatively low. This suggests that a multitude of factors are not captured by Homeless Management Information System data that are likely critical to preventing returns to homelessness. These might include social and environmental factors such as economic stability, neighborhood quality, availability of services, and social supports.

Fifth, disparities in returns to homelessness signal the need for rigorous evaluations of coordinated entry systems serving single adults. Individuals identifying as Native American or Alaska Native were at significantly higher risk of returning to homelessness, both overall and specifically when exiting to RRH. Given the scarcity of research examining the experiences of homelessness among

indigenous peoples and the burgeoning literature on racial and ethnic disparities in the VI-SPDAT and the provision of formal housing interventions (Cronley, 2020; King, 2018; LAHSA, 2018; Wilkey et al., 2019), these findings further emphasize the need to evaluate coordinated entry systems and the experiences of historically marginalized populations within them.

Sixth, the findings indicate the odds of housing success may be improved by providing increased support for particular vulnerabilities prior to and following an individual's exit from homelessness. Specific vulnerabilities measured by the VI-SPDAT associated with returning to homelessness highlight opportunities for service providers to help improve an individual's odds of success. Planning personal activities that bring personal joy and meeting day-to-day needs were significant factors in decreasing individuals' odds of returning to homelessness and may function as important protective factors. Conversely, attributing their most recent housing loss to trauma or abuse may alert service providers to individuals at potentially greater risk of returning to homelessness—even after receiving a formal housing intervention. Once again, these findings are similar to associations with housing failure among youth previously explored by Rice et al. (2018). Although the VI-SPDAT is primarily used to help prioritize individuals for available housing resources, the findings suggest that specific items might be used to identify persons who may face a higher risk of returning to homelessness and toward whom additional supportive services could be targeted to improve their odds of housing retention.

Limitations

Although this study is novel in analyzing a large sample of single adults across multiple CoC jurisdictions, several factors limit its generalizability that underscore opportunities for future research. The authors' operationalization of returning to homelessness requires that an individual (1) returns to the local homeless services system following their initial exit from homelessness within at least 365 days and (2) is recorded in the local HMIS. The current dataset does not document scenarios in which a housing loss or return to the homeless services system is not recorded in HMIS or in which an individual experiences a housing loss but either never returns to the homeless services system or returns to the system in a CoC jurisdiction different from the one in which they were initially assessed.

To better assess the stability of private market housing destinations, greater insights into exits to family and self-resolve are also needed. In the current dataset, exits to family and self-resolve likely represent an undercount, as individuals who were documented as "lost to follow-up" (i.e., no subsequent HMIS entries after their VI-SPDAT) may have self-resolved or returned to family but were not recorded by the system. In recording exits to family and self-resolve, service providers must qualitatively assess the stability of these exit destinations. From the available data, it is not possible to discern the extent to which private market housing destinations might have represented more precarious living situations. For example, short-term arrangements, informal tenancy agreements wherein the individual did not sign a lease, or overcrowded conditions may be indicators for increased risk of returning to homelessness.

Finally, the current dataset does not include information regarding the type, frequency, or quality of support services received by individuals before, during, or after their initial exit from homelessness into housing. More detailed information on service provision and engagement may reveal the impact of service utilization patterns on returns to homelessness among single adults. Further, this study is unable to establish causality due to the absence of a control group, the lack of randomly assigning individuals to different housing destinations, and the potential threat of selection bias presented by the discretion service providers may exercise in allocating limited housing resources.

Future Directions

Coordinated entry has transformed the homeless services system during the past decade. Vulnerability assessment is a fundamental mechanism of coordinated entry and serves as an individual's gateway into this system. Despite its widespread uptake by communities, the VI-SPDAT has yet to undergo a rigorous psychometric evaluation and the findings here provide only preliminary evidence of the correlation between VI-SPDAT scores and returns to homelessness.

Some of the individual correlates of returns to homelessness identified warrant further research into new interventions targeting specific services to persons who may have increased odds of returning to homelessness. Further examination of coordinated entry outcomes among veterans is also recommended due to the unique characteristics of and resources available to this population. As the VI-SPDAT assumes a powerful role in influencing housing placements—and ultimately housing outcomes—rigorous evaluations of assessment, referral, and placement practices in addition to the tool and the housing interventions themselves are imperative.

As service providers, system leaders, and policymakers aim to dismantle inequities affecting people of color, it is incumbent upon future research to investigate the experiences of historically marginalized groups within coordinated entry and current housing programs. Although the authors' observations highlight disparities faced by indigenous populations, the authors believe that other racial and ethnic disparities may be observed in specific communities. Research examining the extent to which distinct disparities manifest across different communities is paramount for future policy and planning efforts.

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