

# **Investing in Ending Single Adult Homelessness: Analyzing the Shift Toward 24/7 Shelter Models**

Hubert H. Humphrey School of Public Affairs  
Capstone Project Report

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<b>Executive Summary .....</b>	<b>3</b>
<b>Project Overview .....</b>	<b>5</b>
<b>Literature Review.....</b>	<b>5</b>
Key Definitions.....	6
Characteristics of Homeless Single Adults & Chronically Homeless Individuals.....	7
Housing Instability & Unsheltered Homelessness .....	9
Barriers to Shelter Access & Uptake .....	10
Homelessness Interventions.....	11
Recent History of Hennepin County Single Adult Shelter System.....	11
Comparison to Other Continuums of Care .....	15
<b>Methods Overview.....</b>	<b>16</b>
<b>Quantitative Analysis .....</b>	<b>17</b>
Data Source and Preparation .....	17
Single-Adult Shelter Utilization (2019-2022).....	19
Statistical Analysis Overview .....	20
Summary Statistics.....	22
Regression Models and Results .....	25
Conclusions and Limitations .....	27
<b>Qualitative Analysis Overview .....</b>	<b>29</b>
Data Source.....	29
Analytic Method .....	30
Limitations.....	30
<b>Qualitative Findings .....</b>	<b>30</b>
Most Effective Uses of Funds .....	30
Benefits of the 24/7 Shelter Model.....	32
Challenges of the 24/7 Shelter Model.....	33
Barriers to Obtaining Shelter/Permanent Housing.....	35
Discussion .....	38
<b>Conclusion .....</b>	<b>40</b>
<b>Works Cited.....</b>	<b>41</b>
<b>Appendix A: Summary Statistics for Spell-level Data by Shelter Year/Model .....</b>	<b>49</b>
<b>Appendix B: Multiple Regression Table - Models of Episodes Initiated per Client.....</b>	<b>50</b>
<b>Appendix C: Multiple Regression Table - Models of Shelter Nights per Episode.....</b>	<b>52</b>
<b>Appendix D: Logistic Regression Table - Models for Exits to Permanent Housing.....</b>	<b>54</b>
<b>Appendix E: Regression Models - Three Primary Outcomes Regressed on Time Period .....</b>	<b>56</b>
<b>Appendix F: Regression Models - Alternative Spell Construction Method .....</b>	<b>57</b>
<b>Appendix G: Qualitative Interview Questions .....</b>	<b>60</b>

## Executive Summary

The purpose of this project was to assess the expansion of 24/7 emergency shelters - locations where individuals experiencing homelessness can stay temporarily - that occurred as part of Hennepin County's COVID-19 response. Our research focused on single adults experiencing homelessness, and we sought to answer three primary questions. First, how has Hennepin County's expansion of 24/7 emergency shelters compared to that of similarly sized Continuums of Care? Second, how has the shift to a 24/7 model impacted shelter utilization and client outcomes? And third, how have changes to the shelter model affected the subjective experience of working in and with emergency shelters, and what effects do staff perceive on the experience of clients utilizing shelter services?

To answer these questions, we used qualitative and quantitative methods. For our qualitative analysis, we conducted interviews with shelter administrators and Hennepin County employees. We analyzed these interviews to convey the challenges and benefits associated with the expansion of 24/7 emergency shelter. For the quantitative analysis, we used HMIS 030 MN Core Homeless Programs Report Entry/Exit data for Hennepin County to describe demographic changes in the single adult shelter population between 2019 and 2022. We also ran regression models on that data to explore possible associations between shelter models and client outcomes such as nights spent in shelter and the odds of exiting to permanent housing.

Through our qualitative analysis, we focused on what the shelter administrators and Hennepin County employees found to be the most effective use of funds, benefits of the 24/7 model, challenges of this model, barriers to accessing shelter, and suggestions for improving outcomes. Interviewees cited Homeless to Housing, Hotels to Housing, single-room occupancy shelters, increased case management services, comprehensive wraparound services, and diversified, person-center shelters as the most effective uses of funds. The most frequently discussed benefits of the 24/7 model were increased safety, more opportunities to connect with clients, better outcomes, and the convenience and dignity offered by 24/7 shelters. Challenges of the 24/7 model included increased costs and operational needs, limited shelter capacity, extended lengths of stay, safety concerns, and the varied schedules of shelter clients. The remaining barriers that prevented individuals from accessing shelter or permanent housing included issues with communication (lack of phone access, etc.), documentation (disability paperwork, immigration status, birth certificate, etc.), and navigating complex systems.

Our quantitative results estimate that clients who primarily used 24/7 shelters between September 2021 and August 2022 experienced fewer shelter spells, stayed more nights in shelter per spell and had significantly greater odds of exiting to permanent housing than clients in 2019. The clients who primarily used overnight shelters between the same range also initiated fewer shelter spells, but they stayed fewer nights in shelter per spell and had lower odds of exiting to permanent housing. We interpret these results as suggesting a mix of shelter models (24/7 and overnight) might be associated with better client outcomes while retaining system flexibility and capacity. This was consistent with our qualitative results, which found that 24/7 shelters led to improved case management services and outcomes, though overnight shelters were necessary for availability and turnover. They also show that Indigenous Americans and female-identifying people have been most likely to use 24/7 shelters, possibly due to increased availability of person-focused support services.

Based on both our quantitative and qualitative research, we have several recommendations for improving the shelter system in Hennepin County. First, we recommend the County maintain a mixed-model system that combines 24/7 shelters and overnight shelters. Having multiple shelter models seems to allow for improved outcomes associated with 24/7 models while maintaining system flexibility and capacity with overnight shelters. Second, there should be adjustments made to Adult Shelter Connect, such as expanding the hours of operation and using the system to optimize client placements through moving clients who get stuck in one shelter to another location with different services or hours of operation. Third, Hennepin County and its partners should prioritize safety and dignity in shelters by providing culturally sensitive services, offering additional single-room occupancy shelters, expanding healthcare resources, and creating specialized services for older adults and LGBTQIA+ persons. Fourth, Hennepin County should expand its shelter and case management capacity. The vast majority of interviewees mentioned this need. An increase in case management capacity could be achieved through hiring additional case aides and drop-in housing support services. Finally, we recommend strengthening the continuum of services. This would consist of an increase in collaboration between shelter systems, shelter staff and social workers, and offering more quality wraparound services.

## **Project Overview**

This project seeks to describe and evaluate Hennepin County’s recent adoption of a low barrier, 24/7 emergency shelter model as part of its efforts to support single adults experiencing homelessness. Implemented as part of the 2020 COVID-19 response, the 24/7 model entails extended hours of operation, expanded services, and reduced barriers to entry. Additional resources provided by federal programs under the Coronavirus Aid, Relief, and Economic Security (CARES) Act and American Rescue Plan Act (ARPA) helped facilitate this rapid expansion and realignment of services, but those resources are finite and projected to expire by the end of 2024.

In light of this looming decrease in fiscal resources, Hennepin County’s Office to End Homelessness formed a partnership with our team to assess the effects of the low-barrier 24/7 model. Together, we developed the following three research questions around which our project and this report are structured:

1. How has Hennepin County implemented the 24/7 shelter model for single adults, and how has its implementation compared to that of similarly sized Continuums of Care?
2. How has the shift to a 24/7 model impacted shelter utilization and client outcomes such as length of time spent in shelter, returns to shelter, and exits to permanent housing?
3. How have changes to the shelter model affected the subjective experience of working in and with emergency shelters, and what effects do staff perceive on the experience of clients utilizing shelter services?

## **Literature Review**

Our literature review discusses unique characteristics and needs for single adults experiencing homelessness. While there is ample research regarding families and youth experiencing homelessness, there is a gap in research geared toward homeless single adults. Our review of existing research indicates that unsheltered single adults encounter myriad barriers to accessing shelter, including: limited availability, safety concerns, shelter policies, and inadequate access to supportive services. We also delve into the characteristics of vulnerable subgroups of the homeless population, including Indigenous individuals and LGBTQIA+ individuals. In the following sections, we will outline:

- Key Definitions
- Characteristics of Homeless Single Adults & Vulnerable Subpopulations

- Housing Instability and Unsheltered Homelessness
- Barriers to Shelter Access & Uptake
- Homelessness Interventions
- Recent History of Hennepin County Single Adult Shelter System
- Comparisons to Other Continuums of Care

## Key Definitions

Definitions of homelessness vary from one source to another. Here, we outline the definitions of homelessness according to the state of Minnesota and the federal Department of Housing and Urban Development (HUD). We also touch on other commonly used criteria for defining homelessness.

According to the state of Minnesota, a homeless person is “any individual, unaccompanied youth or family that is without a permanent place to live that is fit for human habitation” (HMIS, 2021). This includes individuals who have been “doubling up,” or sharing the housing of other persons, for less than one year (HMIS, 2021). When calculating the length of time an individual has been homeless, periods of institutionalization and incarceration are not included (HMIS, 2021). An individual is considered “long-term homeless” if they’ve been without a permanent place to live for 1+ years, or if they’ve had 4+ episodes of homelessness in three years (MN Housing, 2017).

At the federal level, HUD has established four categories of homelessness:

1. Literally Homeless: lacking a “fixed, regular, and adequate nighttime residence”
2. Imminent Risk of Homelessness: facing “imminent loss of a primary nighttime residence”
3. Homeless Under other Federal Statutes: unaccompanied youth and families with children experiencing “persistent instability during the preceding 60 days”
4. Fleeing/Attempting to Flee Domestic Violence: “fleeing or attempting to flee domestic violence, dating violence, sexual assault, or stalking, and [lacking] the resources... to obtain permanent housing” (HUD, 2012)

HUD defines an “episode” of homelessness as “a separate, distinct, and sustained stay on the streets and/or in a homeless emergency shelter” (2007). HUD and Minnesota define separations between episodes of homelessness as “at least 7 nights of living in a situation other than a place not meant for human habitation, in an emergency shelter, or in a safe haven” (MN Housing, 2017). HUD’s definition of chronic homelessness is similar to Minnesota’s definition of long-term homelessness, with one key difference. For an individual to be considered

chronically homeless, HUD requires that an adult individual or family member be disabled (MN HFA, 2015).

The above definitions of homelessness encompass a wide variety of living situations. Understanding these definitions is crucial in identifying available services for subgroups of the homeless population. For instance, Hennepin County’s Coordinated Entry System prioritizes housing placement for those “with the highest vulnerability, service needs, and length of homelessness” (2023). Likewise, certain HUD housing is restricted to chronically homeless individuals and families (HUD Exchange, 2023). Our report focuses on the distinction between sheltered and unsheltered homelessness, where a *sheltered* individual resides in emergency shelter or transitional housing and an *unsheltered* individual sleeps in a location not designated as an overnight accommodation (Andrichik et al., 2022).

Because of the myriad ways people experience homelessness, it is difficult to accurately estimate the size of the homeless population. Estimates of the homeless population often undercount the “hidden homeless” - those who sleep in locations such as campgrounds and box cars (Link et al. 1994). It is also challenging to account for everyone who is “doubling up” or couch hopping in estimates of the homeless population (Larsen et al., 2004).

Continuums of Care (CoCs) are tasked with providing Point-in-Time (PiT) counts, or “one-night estimates of both sheltered and unsheltered homeless populations” (Andrichik et al., 2022). As established by HUD, a CoC is a local planning body responsible for “coordinating the full range of homelessness services in a geographic area, which may cover a city, county, metropolitan area, or an entire state” (Andrichik et al., 2022). There are 400 CoCs in the United States (Andrichik et al., 2022) divided into four geographic categories: Major City CoCs, Largely Urban CoCs, Largely Suburban CoCs, and Largely Rural CoCs (Ullman, 2020). Minneapolis/Hennepin County is one of 48 Major City CoCs.

## **Characteristics of Homeless Single Adults & Chronically Homeless Individuals**

Our study focuses on single adults experiencing homelessness. On a single night in 2022, roughly 421,392 out of the 582,500 people experiencing homelessness in the United States were single adults (Andrichik et al., 2022). Out of these 421,392 individuals, 49% were staying in sheltered locations and 30% were classified as chronically homeless (Andrichik et al., 2022). In Minnesota, 4,957 out of the 7,917 people experiencing homelessness in 2022 were single adults (ICA Minnesota, 2022). In Hennepin County, 1,720 out of the 2,678 people experiencing homelessness in 2022 were single adults (PiT, 2022). Out of these 1,720 individuals, 72% were sheltered and 28% were unsheltered (PiT, 2022). Although single adults comprise the majority of the homeless population (Fargo et al., 2013), there is limited research on this group. Many

researchers use families, rather than individuals, as units of study (Culhane, 2011). Thus, it is essential for future researchers to further illuminate the specific needs of this population.

The population of homeless single adults has several unique characteristics. While single women head most families experiencing homelessness, men comprise a majority of the single adult homeless population (Culhane et al., 2013). Nationally in 2022, 70% of individuals experiencing homelessness were men, 28.2% were women, and 1.8% were transgender, nonbinary, or gender questioning (Andrichik et al., 2022). Between 2020 and 2022, homelessness increased at a faster rate among single adult women than among single adult men (Andrichik et al., 2022). Overall, African Americans and Indigenous people experience disproportionately high rates of homelessness due to historical and structural racism (NAEH, 2023). There are further differences in racial demographics between homeless single adults and families, too. Of the families experiencing homelessness in 2022, 50% were Black, African American, or African and 38% were White. However, of the single adults experiencing homelessness in 2022, 54.8% were White and 32.7% were Black, African American, or African (Andrichik et al., 2022). There is evidence that the population of homeless single adults in the United States is aging at a faster rate than the general population (Culhane et al., 2013). Indeed, the population of individuals experiencing homelessness “became slightly older” between 2020 and 2022 (Andrichik et al., 2022). Research suggests that different factors are associated with single adult homelessness than family homelessness. In metropolitan CoCs, there is little association between community safety net programs and rates of family homelessness (Fargo et al., 2013). However, rates of homelessness are negatively associated with Medicaid spending for single adults (Fargo et al., 2013).

Within the population of homeless adults there are vulnerable subgroups. One such subgroup is those experiencing chronic homelessness, who have difficulty obtaining stable housing because they disproportionately live in unsheltered areas and typically have “complex and long-term health conditions,” (NAEH, 2023). Adults who experience prolonged periods of homelessness also have a mortality rate 3-4 times greater than the general population (Wiessing et al., 2021). Nationally, the number of chronically homeless individuals increased by 16% from 2020 to 2022 (Andrichik et al., 2022). However, Hennepin County has achieved a 22.4% reduction in the number of chronically homeless individuals during that same period through initiatives such as the Homeless to Housing program and the use of by-name data to target service delivery (Ranney, 2023).

Among the homeless population, historically marginalized racial groups are often particularly vulnerable. Nationally, due to centuries of violence and discrimination in housing policies, healthcare, criminal justice, employment, and education, Native Hawaiians and Pacific Islanders, Native Americans, and Black or African Americans experience disproportionately high rates of homelessness (NAEH, 2023). In Minnesota, people who are Black, American-



Indian, Pacific Islander, or Hispanic are disproportionately burdened by the cost of housing (Housing and Homeless Board Meeting). In Hennepin County, Black individuals make up 58% and Native Americans make up 11% of the population experiencing homelessness (Housing and Homeless Board Meeting). Both nationally and in Hennepin County, Native Americans are more likely than other racial groups to experience unsheltered homelessness (Wiltz, 2019). Cultural barriers and a mistrust of government agencies due to historical trauma are among the reasons for low shelter uptake among Native Americans (Pallet Shelter, 2020). Addressing racial disparities in housing and homelessness is a central priority for Hennepin County, and the county has recently partnered with AICDC Homeward Bound to address homelessness in the American Indian community (Housing and Homeless Board Meeting). In addition to race, gender and sexuality are also associated with a homeless person's level of vulnerability. Members of the LGBTQ+ community are "more likely to become homeless" than the general population, and once homeless, they are "more likely to endure discrimination and harassment that extends their homelessness" (HUD Exchange, 2023). Furthermore, homeless LGBTQ+ people face higher rates of sexual assault and higher rates of substance use than the general homeless population (Fraser et al., 2019).

## **Housing Instability & Unsheltered Homelessness**

Research shows that housing instability is associated with adverse health outcomes. In the US, homeless persons are three to six times more likely to become ill and four times more likely to be hospitalized than the general population (Maness & Khan, 2014). Additionally, the stress of being unstably housed "can result in disruptions to employment, social networks, education, and the receipt of social service benefits" (Taylor, 2018). Rates of substance use are higher among those who are unstably housed than the general population (Pan et al., 2020). In Minnesota, people experiencing homelessness are ten times more likely than the general population to die from substance use (Serres, 2023). Conversely, stable housing "may help individuals... increase their rates of medical care, maintain their treatment regimens, and achieve better health outcomes" (Maqbool & Ault, 2015). It is easier for individuals to store medications, maintain continuity of medical care, and seek employment when they are stably housed (Maqbool & Ault, 2015).

Among the homeless population, unsheltered people face more risks than sheltered people. Unsheltered people are more frequently exposed to extreme weather than sheltered people, and homeless individuals who live on the street "are particularly vulnerable to morbidity and mortality resulting from heat or cold exposure" (Ramin & Svoboda, 2009). They are among the most likely to develop "a variety of mental illnesses - including anxiety, depression, and post-traumatic stress disorder - as a result of weather-related disasters" (Ramin & Svoboda, 2009). They interact with police more frequently than sheltered individuals, and they are nine times more likely to spend time in jail than people in shelters (Batko et al., 2020). Unsheltered

individuals also “reported having poorer health and exhibited more symptoms of illness than those living in sheltered locations” (Batko et al., 2020). Additional research is needed to better understand and compare health care spending and usage between sheltered and unsheltered adults (Koh et al., 2021).

## **Barriers to Shelter Access & Uptake**

Given that there are additional risks associated with unsheltered homelessness, it is important to understand the barriers to shelter access and uptake among the homeless population. The following overview is based on national data, but some of these barriers are also present in Hennepin County. The barriers include: lack of trust, limited availability, difficulty obtaining documentation, shelter policies and practices, and clients’ need for additional services.

Lack of Trust: There is evidence that “mistrust of outreach workers and lack of confidence that available services can meet their needs” is among the reasons for refusal of shelter services, particularly among chronically homeless individuals (Paat et al., 2021). Adverse past experiences and reports of unsafe shelter conditions can contribute to this lack of trust.

Limited Availability: Limited availability of shelter beds is another reason why homeless people might not seek shelter. Individuals must weigh the cost of waiting in line for a shelter bed against the potential benefits of obtaining a bed (Pallet Shelter, 2020). People seeking beds in overnight-only shelters encounter this barrier quite frequently; even if they get a bed for the night, they have to “leave in the morning and play the ‘shelter bed lottery’ again the next evening” (Pallet Shelter, 2020).

Difficulty Obtaining Documentation: Obtaining the necessary documentation and identification is a barrier to accessing social services, and a lack of legal documentation can “interfere with... daily functioning,” such as seeking out shelter and employment, for homeless individuals (Paat et al., 2021).

Shelter Policies and Practices: Some individuals cite shelter policies prohibiting pets as a reason for remaining unsheltered (Wusinich et. al, 2019). Others cite rigid shelter curfews that conflict with their schedules (Pallet Shelter, 2020). Still others would rather not sleep in the group environment of community shelters (Ward et al., 2022).

Clients’ Need for Additional Services: Sometimes, shelters cannot accommodate the needs of potential clients. They may not have resources to help individuals with chronic health conditions, dietary restrictions, accessibility requirements, or mental health concerns (Wusinich et al., 2019). Shelter workers listed “the lack of qualified helping professionals” and “the limits of service coordination” among the challenges of working with the homeless community (Paat et al., 2021).

## **Homelessness Interventions**

Housing First: Housing first is an approach to ending homelessness that prioritizes placing people experiencing homelessness in permanent housing without requiring that they fulfill prerequisites (NAEH, 2022).

Shelter: Homeless shelters are intended for temporary, emergency use by people experiencing economic hardship (SAMHSA, 2022). Recently, there has been a shift in US homeless service policy away from emergency shelters and toward permanent housing interventions (Brown et al., 2016). However, shelters remain a “key point of entry into engagement with services to support housing placement” (Brown et al., 2016). Indeed, emergency shelters can play an important role in a Housing First approach to ending homelessness if they are “low barrier, focus[ed] on assessment and triage, and intentionally link[ed] to permanent housing resources” (Miller, 2016).

Permanent Supportive Housing: Targeted toward people who are chronically homeless and/or highly vulnerable, permanent supportive housing combines subsidized housing with access to supportive services to “help people with disabilities maintain stable housing and live productively in the community” (Locke, 2017).

Rapid Re-Housing: Targeted toward people who do not need sustained supported services, rapid rehousing offers housing assistance without preconditions, tailored to the needs of each household (Miller, 2018).

Diversion: Diversion is a homelessness prevention strategy that prevents people from entering emergency shelters through assistance identifying and obtaining immediate alternate housing arrangements (NAEH, n.d.).

## **Recent History of Hennepin County Single Adult Shelter System**

Like many jurisdictions around the country, Hennepin County has experienced an increase in demand for emergency homeless shelters serving single adult populations in recent years. Between 2017 and 2021 the average number of single adults in Hennepin County shelters increased by 15.4%, from 895 to 1,033 individuals (Hennepin County, 2021).

Hennepin County has implemented several important changes to its single adult emergency shelter system to address the needs of this community. In 2016, the County launched its Adult Shelter Connect system and a shelter bed reservation system to assist unhoused individuals locate emergency shelter. The system aimed to reduce the stress of finding space at an emergency shelter, and has become central to coordinating the use of shelter space among

eight participating shelter organizations (Simpson Housing, 2023). The same year the County implemented shared access to its Homeless Management Information System (HMIS) database, allowing the County and partner organizations to more effectively allocate resources based on need.

In late 2018 the issue of single adult homelessness in Hennepin County garnered national attention when an encampment of over 200 tents appeared suddenly beside Hiawatha Avenue. The encampment, which came to be known as “The Wall of Forgotten Natives” due to its large Native American population, spurred conversations about experimental shelter models to address the needs - both material and social - of individuals facing homelessness (Nesterak, 2019). Through partnerships with nonprofit organizations including AVIVO, Simpson Housing Services, the American Indian Community Development Corporation (AICDC) and others, the city of Minneapolis opened a temporary low-barrier shelter named the Navigation Center to provide 24/7 shelter and intensive person-focused services to those living in the encampment. The Navigation Center operated from December 2018 through June 2019 (Nesterak, 2019).

In 2019, Hennepin County’s Office to End Homelessness proposed a series of recommendations designed to "lower barriers, improve outcomes and increase capacity for under-served populations in the single adult shelter system" (Hennepin County, 2020). Among the first round of recommendations to receive funding were system-wide independent training for all shelter workers and providing case management services at larger shelters. Extended operating hours for emergency shelters were also among the recommendations.

In 2020, the onset of the COVID-19 pandemic and accompanying responses by state, local, and Federal governments upended normal operations and shifted priorities for emergency shelters nationwide (CDC, 2022). Following the Federal emergency declaration, Hennepin County declared a public health emergency on March 16, 2020 (Hough, 2021). On March 17, the Hennepin County Board approved \$3 million to lease hotels to serve as shelters for homeless individuals most at risk of severe illness from COVID-19. This massive undertaking, which eventually facilitated the creation of the “Hotels to Housing” program, initially focused on moving the elderly and people with pre-existing medical conditions out of congregate shelter. Seven hotel sites eventually opened - two for elderly individuals and those with pre-existing medical conditions, two for people with suspected or confirmed COVID-19 cases, and three for people who could not safely self-isolate (Tignerthal, 2021).

In the weeks immediately following the public health emergency, emergency shelters in Hennepin County rapidly shifted their operations to accommodate a 24/7 schedule. Official dates vary by shelter and source - the shift occurred rapidly, however. Among the major concerns were the closing of many indoor spaces frequented by homeless individuals during the day, such as

libraries and free meal providers, as well as the risk of COVID-19 exposure in encampments (Crann & Burks, 2020).

On March 27, 2020, President Trump signed the Coronavirus Aid, Relief, and Economic Security (CARES) Act, which expanded funding to state and local governments in response to COVID-19. Hennepin County received \$220 million in CARES Act funding, \$24.8 million of which was used for housing stability grants for emergency rental assistance and emergency shelter (Hough, 2022). In addition to supporting expanded operations at existing shelters, CARES Act funding contributed to the founding of AICDC Homeward Bound and AVIVO Village in December 2020 and March 2021, respectively. These new low barrier, 24/7 pilot programs were modeled in part on the Navigation Center, with the former operated by and focused on serving the American Indian community (Hough, 2021).

The County also used CARES Act funding to purchase hotels and motels in order to reduce leasing costs related to the hotel shelter program. The hotel shelter program accepted its last resident in February 2021, raising the total number of individuals served by the temporary, intensive program to 1,118 (Hough, 2021). County officials credited the 24/7 schedule and intensive support services as effective for helping those individuals find permanent housing. Following the end of this program, many emergency shelters for single adults continued to operate 24/7.

In 2021, the Hennepin County Consortium received an additional \$6.4 million under the State and Local Fiscal Recovery Fund program (SLFRF) of the American Rescue Plan Act (ARPA). These funds allowed the County and partner organizations to sustain 24/7 hour operations and expand case management resources available to single adults seeking emergency shelter (Hough, 2021). In February 2022, the County launched an expanded case management program named Streets to Housing, which aims to expand outreach and improve outcomes for unsheltered single adults (Birnstengel, 2023).

As of July 2022, two of the largest single adult emergency shelters in Hennepin County operated as overnight shelters and the rest operated 24 hours per day (Hennepin County, July 2022). CARES Act funding expired prior to 2022, and the County's ARPA funds for expanded emergency shelter operations are projected to run out by December 2024. Without these additional Federal funds, the County faces a nearly \$13 million annual "fiscal cliff" for homeless shelter services in the near future (Du, 2022). This expected decrease in funding serves as the immediate impetus and context for this report.

**Table 1: Hennepin County Single Adult Emergency Shelters, 2019 and 2022**

<b>Shelter</b>	<b>Operating 2019</b>	<b>Operating 2022</b>	<b>Shelter Model 2022</b>	<b>Capacity 2022</b>
Catholic Charities Higher Ground 1st Floor	Yes	Yes	Overnight	120
Catholic Charities Higher Ground Pay for Stay	Yes	Yes	24/7	80
Catholic Charities Endeavors Medical Respite	No	Yes	24/7	30
Salvation Army HLC 1-Night (Sally's Place/Safe Bay)	Yes	Yes	Overnight	83
Salvation Army HLC 30-Day (Sally's Place/Safe Bay)	No	Yes	24/7	(Subset of 83 above)
Salvation Army HLC Emergency Housing (Mens/Womens)	Yes	Yes	24/7	155
Salvation Army Women's Only Shelter	No	Yes	24/7	30
Simpson Housing Services (Mens/Womens)	Yes	Yes	24/7	64
Our Saviour's Community Services	Yes	Yes	24/7	21
Agate First Covenant	Yes	Yes	24/7	48
Agate Clinton	Yes	No	-	-
Agate 510	No	Yes	24/7	38
AICDC Homeward Bound	No	Yes	24/7	50
AVIVO Village	No	Yes	24/7	100
Rescue Now	No	Yes	Overnight	50

Sources: Hennepin County Consortium HOME-ARP Allocation Plan (2022); Hennepin County Shelter Amenities (2022)

## Comparison to Other Continuums of Care

Other Continuums of Care have pursued similar efforts to Minneapolis/Hennepin county during the time frame we study here. Unfortunately, this information is incredibly limited and difficult to access, meaning some information on how other CoCs and shelter programs behave cannot be found without exploring them to the same extent as we have for Hennepin County.

Boston, similar to Hennepin County, has a current mix of 24/7 and overnight shelters (Boston.gov, 2017). Their site fails to act as a complete directory, with only a handful of operating homeless shelters listed, three of them belonging to Pine Street Inn, identified as belonging to a 24/7 model. Five others are listed on the City of Boston official website as overnight. Boston's site similarly includes links and directions to daytime services including meals, shelter, showers, lockers, or healthcare. The entire CoC seems to be much larger, as demonstrated by HUD grant competition results for MA-500 (HUD, 2023). 42 organizations in MA-500 received \$42,527,646 from HUD for fiscal year 2022, and several of these, such as Casa Myrna Vazquez, Inc, are dedicated to specific constituencies, such as domestic violence survivors, and operate 24/7 shelters, though similar to Hennepin, not all the shelters listed serve single adult populations.

Tucson/Pima County has surprisingly little available online in terms of a shelter directory, and their CoC, instead of receiving and awarding grants for individual shelters, seems to have their \$11,971,076 in 2022 HUD awards focused on projects, expansions, or grants (HUD, 2023), including 53 units of permanent supportive housing (Macpherson, 2023). However, Tucson seems to have embraced "Housing First" as their approach to solving homelessness - 78% of their HUD award went to supportive and rapid rehousing (HUD, 2023). Reporting underutilization of homeless resources due to poor organization, as early as August 2020; their PiT report the number of unused beds exceeded the number of people experiencing unsheltered homelessness (City of Tucson, 2023). Yet their coordinated entry program emphasizes being a "single door" to services, and a complex but comprehensive web of referrals, transitional or rapid rehousing, seems to demonstrate a strong desire to end homelessness. Their espoused goals maintain the commitment to housing first, while individual shelters included in their CoC do not appear to be 24/7.

Oregon's OR-500 CoC includes winter warming shelters, emergency shelters, and alternative shelters (LC Human Services, 2023). Examples from their alternative shelter program include Safe Sleep sites and overnight parking sites, both of which support people experiencing homelessness and living out of their cars. Their Safe Spot Communities follow a similar model, with huts and tents at set locations. Emergency shelters like the Night Shelter Annex run through St. Vincent de Paul build in the expectation of longer stays (90 days) with wraparound services (St. Vincent de Paul, 2023). The County's Shankle Brooklyn Street Shelter, serving only 12 of

Lane County’s “most vulnerable community members at a time” provides not just rooms and kitchens, but also medical and behavioral health services (Lane County, 2022). It demonstrates a wide variety of shelters and services at a time where the County reports too few beds and a need for many more creative solutions - very different from Tucson/Pima County’s CoC.

Lastly, for Nashville-Davidson County CoC, there has been extensive investment in permanent and rapid rehousing solutions - almost 3/7ths of their HUD awards have gone to permanent supportive housing alone (HUD, 2022). They maintain 1,376 adult-only emergency shelter beds, with 708 adults in households without children in emergency shelter beds during their 2021 PiT count. 235 individuals and 237 individuals were reported as having severe mental illnesses or chronic substance abuse issues, respectively. They only received \$7,046,245 from HUD in 2021, but the money is largely being put into rapid rehousing, coordinated entry, and renewal projects (HUD, 2021).

**Table 2** - Selection criteria for CoCs of comparable size to Hennepin County, by selected CoC.

<b>Continuum of Care</b>	<b>CoC HUD Category</b>	<b>Overall Homeless, 2022 PIT</b>	<b>Individuals Over Age 24, 2022 PIT</b>
Minneapolis/Hennepin County CoC (MN-500)	Major City CoC	2,678	1,516
Eugene, Springfield/Lane County CoC (OR-500)	Other Largely Urban CoC	2,880	2,196
Nashville-Davidson County CoC (TN-504)	Major City CoC	1,916	1,621
Tucson/Pima County CoC (AZ-501)	Major City CoC	2,227	1,581
Boston CoC (MA-500)	Major City CoC	4,439	1,432

Source: 2022 AHAR Part 1 - PIT Estimates of Homelessness in the U.S., PIT Estimates by CoC

## Methods Overview

Throughout our analysis we make a conceptual distinction between two “models” of shelter: Overnight and 24/7. In addition to being convenient, sorting shelter models primarily by their hours of operation also roughly sorts them along other key dimensions, such as client access to support services, allowance of pets and other barriers to entry.



In order to explore the impacts of the shift toward 24/7 single adult emergency shelter models in Hennepin County we utilize a two-pronged approach. The first prong, a quantitative analysis of HMIS 030 MN Core Homeless Programs Report Entry/Exit data for Hennepin County, begins by summarizing overall changes in shelter utilization by single adults in Hennepin County between 2019 to 2022. To compare shelter models as directly as possible, we then focus on two key periods of interest, 01/01/2019-12/31/2020 and 09/01/2021-08/31/2022, which straddle but do not include the bulk of Hennepin County's COVID-19 response. We use Ordinary Least Squares (OLS) regression and logistic regression to explore associations between shelter models used in the two periods and three key outcomes: homeless spells per client, shelter nights per spell, and the percentage of spells ending in an exit to permanent housing.

The second prong, a qualitative analysis of lived professional experiences, uses interviews with County and shelter staff and administrators to capture data on their experience with the change to 24/7 shelters, and the role they play in a broader, shifting environment with innovations in various models of shelter or housing.

## **Quantitative Analysis**

### **Data Source and Preparation**

For our quantitative analysis we relied on entry/exit data from the HMIS 030 MN Core Homeless Programs Reports for calendar years 2019 through 2022. Reports were pulled in late January and early February of 2023, and a few shelters had not fully reported their entry/exit data for the fourth quarter of 2022 at that time. In the sections that follow we note when this impacts our analysis.

The Core Reports include information on gender, race, age, income, disability status, and veteran status of individuals, as well as data available for their family status and residence prior to entering shelter. Exit destination data is recorded when available, though over 60% of all exits do not have a destination listed. Each individual also has a unique ID that may be used to identify multiple entries over time and across shelters.

Entry/exit data for all single adults in Core Reports 2019 through 2022 was compiled using Excel and prepared for analysis using StataSE 17 software. Duplicate observations were removed from the 4-year dataset by referencing the unique EEId assigned to each entry/exit pair. Many clients had entry/exit periods that overlapped one another, resulting in clients being recorded in multiple shelters simultaneously. These "negative gaps" between pairs of shelter periods were corrected by moving the entry date for the latter stay forward to match the exit date of the first. In situations where this resulted in a shelter stay with an entry date later than its exit,

the latter observation was dropped. Overall, removing duplicate records and clearing “negative gaps” reduced the number of entry/exit observations from 353,356 in the Core Report to a final analytic sample of 325,132. This dataset was used to summarize shelter utilization by single adult clients between January 2019 and December 2022.

To prepare the Core Report data for use in linear and logistic regression we aggregated the cleaned entry/exit data into episode-level and client-level datasets. As noted above, HUD defines instances of homelessness as distinct episodes when they are 1) separated by at least 7 nights AND 2) those nights are spent “in a situation other than a place not meant for human habitation, in an emergency shelter, or in a safe haven” (MN Housing, 2017). We therefore used a two-stage aggregation process to create the episode-level dataset. First, for each client, entry/exit observations were combined into spells if they were separated by fewer than seven nights spent outside of shelter. Second, exit destination data was used to combine these spells into longer episodes when appropriate. Notably, exit destination was missing for a majority of spells even after the first aggregation. When exit destination was available, shelter stays separated by at least 7 days were treated as belonging to the same episode unless the first stay ended with an exit to permanent housing or non-homeless status. When exit destination was not available preceding a 7 day or longer gap in shelter attendance we default to designating the next entry as the start of a new episode - this default assumption is an important limitation for our analysis. Accordingly, our full analysis was also performed under the opposite assumption in which spells separated by a 7 day or longer gap to an unknown exit destination were joined together. While the results of that alternative analysis are not presented in detail for the sake of brevity, we do briefly describe them when appropriate. Taken together, since they represent two extremes with respect to how unknown exit destination data is treated to construct homeless episodes, we believe these two analyses can be interpreted as producing reasonable bounds for estimated effects.

Client-level data was constructed by aggregating episodes of homelessness by the calendar year in which they began and by unique client IDs. Unlike the episode-level data described above, which contains only one observation for each episode even when stretching across calendar years, our client-level dataset includes an observation for each year in which a client initiated a new episode of shelter use. This allows for the calculation of annual demographic summary data without interrupting spell counts for individual clients.

Our regression analyses then restrict our episode-level and client-level datasets to include only episodes that began during one of two periods: 01/01/2019 - 12/31/2020 or 09/01/2021 - 08/31/2022. These year-long entry periods were chosen in an attempt to exclude effects on shelter outcomes for single adults that might be attributable to COVID-era de-congregation activities and programs such as Hotels to Housing. For both periods, we exclude episodes (and clients in the middle of episodes) that began before but persist after the period start date. We do

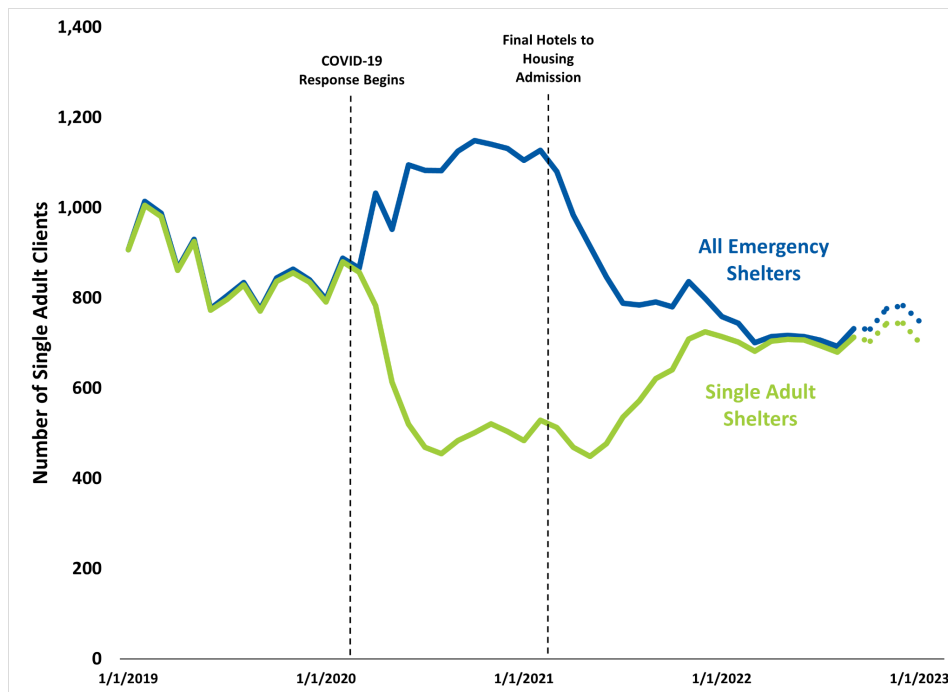
this for two reasons: first, to try to minimize the number of stays directly related to COVID-era activities in the later period; and second, to minimize potential effects of a handful of outlier episodes that span across both observation periods. The second period ends before September 2022 due to incomplete reporting of entry/exit data for the final quarter of 2022 at the time it was pulled for this analysis. Our hope is that these two periods represent stretches of relatively “normal operation” just before and just after the main pandemic response.

Finally, to account for effects that might be caused by different degrees of data censoring between our two periods, we only observe outcomes for an additional four weeks following the end of each entry period. To accomplish this, any spells that lasted beyond 01/28/2020 or 09/28/2022 for each period, respectively, had their exit dates changed to those end dates and their exit destination changed to “Stayer.” While not a perfect solution, this strategy accounts for differences in outcomes that could simply be due to spells beginning in 2019 having additional time to persist or resolve.

### **Single-Adult Shelter Utilization (2019-2022)**

**Figure 1** provides an overview of changes to the total single adult client population by month between 2019 and 2022. In 2019 and early 2020, almost all single adult clients accessed shelters that specialized in serving single adults (**Table 1** above). Once the COVID-19 pandemic response began in March 2020, however, the single adult client population increased by about 30% and began accessing other types of shelter such as family and youth shelters, quarantine spaces and hotel rooms. Despite the surge in clients, the population utilizing single adult shelters decreased by about 40% throughout the last half of 2020 and early months of 2021. Once the COVID-19 response began to wind down in February 2022 the number of single adults accessing other types of shelters decreased, and by 2022 almost all single adult clients were accessing only single adult shelters again. The single adult client population decreased slightly relative to its pre-pandemic level, from a monthly average of 870 clients in 2019 to 720 through September 2022.

The effect of Hennepin County’s COVID-19 response in **Figure 1** is unmistakable. The County clearly achieved the goal of deconcentrating single adult shelters, and the number of individuals rerouted to hotels and other shelter types even exceeded the single adult shelter population for the last half of 2020. The fact that the gap between shelter types closed quickly following the end of the largest COVID-era programs strongly suggests these programs were responsible for the shift in utilization during the pandemic. Overall, we believe the drastic changes in shelter utilization by single adults throughout the pandemic response supports the decision to focus statistical comparisons of 24/7 and Overnight shelter models on periods outside of the response itself.



**Figure 1:** Estimated count of single adult clients by shelter type, 2019-2022. Estimates start from a base population of 907 shelter residents on January 1, 2019 and use net entries/exits as of the start of each month. Dates for both the beginning of the COVID-19 response and the last admission to Hotels to Housing are shown for context. “All Emergency Shelters” includes all organizations listed as emergency shelters in the HMIS Core Homeless Programs Report, while “Single Adult Shelters” includes only those that specialize in serving single adult populations. Shelter data from after September 28, 2022 was only partially reported at the time of analysis, so counts are likely incomplete.

## Statistical Analysis Overview

In alignment with Hennepin County’s stated mission of making episodes of homelessness rare, brief, and non-recurring (Hennepin County, 2021), our statistical analysis focuses on three primary outcome measures: the number of homeless spells experienced by single adult shelter clients, the number of nights spent in shelter during those spells, and the proportion of spells ending in exits to permanent housing.

Since clients often accessed both 24/7 and Overnight shelters during the same spell of homelessness, we constructed our primary independent variables to reflect the predominant shelter model used within each year. When both models of shelter were accessed during the same episode of homelessness, we compare the number of nights the client stayed at shelters of each model. If they spent more nights in 24/7 shelters, that spell is defined to be a predominantly 24/7 shelter stay - otherwise, it is defined to be an Overnight shelter stay. Ties are broken based on the

last shelter accessed during the spell. When comparing outcomes for a year, Clients were similarly sorted into groups by comparing the number of nights they spent in each type of shelter throughout the entire year.

Overall, our regression analysis seeks to compare outcomes across three cohorts: clients who predominantly used Overnight shelters in 2019, clients who predominantly used Overnight shelters between September 2021 and August 2022, and clients who predominantly used 24/7 shelters in the latter period. We also compare outcomes across the two periods directly, and we conceptualize this as a comparison of the two single adult shelter systems in full, essentially aggregating the effects of 24/7 and Overnight shelters for the 2021-2022 period. **Table 3** summarizes the central questions of our analysis and the statistical technique and datasets we use to explore them.

To further isolate any associations between predominant model accessed and the three key outcome variables we control for several covariates, including: month of shelter entry, client age in years upon entry, client category of homelessness according to Minnesota’s definitions of homelessness, category of residence immediately prior to entry, gender, race, ethnicity, disability status, and veteran status. When defined at the spell level, each of these covariates refers to the client’s status as of the beginning of that spell. When defined at the client level, each refers to the client’s status as of the beginning of their first spell in the observation year. Due to the large number of covariates used in the model we do not attempt to estimate interaction effects in our primary models; estimated covariate coefficients thus represent an overall association present across all cohorts. We do discuss an interaction between American Indian/Alaskan Native and primary shelter model used, however, given the County’s recent efforts to improve outcomes for that group specifically.

Due to a limited population size of only 50 clients and 54 total spells of homelessness, we exclude clients who primarily relied on 24/7 shelter in 2019 from the regression models. We believe this exclusion is also justified by the fact that essentially all of those spells occurred at the Navigation Center, which arose under unusual circumstances and operated for only the first half of 2019.

**Table 3:** Overview of statistical analysis

Question	Method	Data Level
What is the association between predominant shelter model accessed and number of homeless spells per client?	OLS Multiple Regression	Client
What is the association between predominant shelter model accessed and the number of nights spent in	OLS Multiple Regression	Spell

shelter per spell?		
What is the association between predominant shelter model accessed and the likelihood a spell ends in an exit to permanent housing?	Logistic Regression	Spell

## Summary Statistics

Client-level summary statistics for covariates by period and predominant shelter model are presented in **Table 4**. The cohort of unique clients who began a spell of homelessness between September 2021 and August 2022 (referred to simply as 2021-2022 or 2022 moving forward) largely resembled the cohort from 2019, with a few key differences.

Mean age at entry decreased by 1.4 years overall between the two cohorts, and clients who primarily relied on Overnight models in 2021-2022 were almost 2 years younger on average than in 2019. Female clients grew as a proportion of the single adult shelter population, from about 24% to 29% overall. Notably, 49% of female clients used 24/7 shelters in 2021-2022, compared to 29% of male clients, although male clients still made up the majority of 24/7 shelter stays. Black/African-American clients fell as a proportion of the population by about 10 percentage points between the two cohorts, while American Indian/Alaskan Natives saw a significant increase from 7.4% to 12.8%. The latter group was also by far the most likely group to primarily utilize 24/7 shelters (67%), a fact that is almost certainly attributable to the culturally-specific mission and services of AICDC Homeward Bound. A similar table of summary statistics for spell-level data is presented in **Appendix A**.

**Table 5** provides brief summary statistics for the primary outcome variables of our study by shelter year and model. The means shown in the table are simply the means for the populations overall - they do not attempt to control for client-level covariates. That said, they provide a baseline understanding of the differences in outcomes between years and models to refer to when interpreting our regression results. In 2019, clients initiated 1.6 episodes of homelessness and spent 45.6 nights in shelter per episode, on average, and 2.6% of episodes ended with an exit to permanent housing. In 2021-2022, clients who primarily relied on overnight shelters initiated 1.4 spells and spent 17.3 nights in shelter per spell, on average, and only 0.6% of episodes resulted in an exit to permanent housing. Clients who primarily relied on 24/7 shelters in 2021-2022 initiated 1.3 spells and spent 74.7 nights in shelter per spell, on average, and 12.0% of those spells ended in exits to permanent housing. In 2021-2022 overall (combining both types of shelter), clients initiated 1.4 spells and spent 33.3 nights in shelter per spell, on average, and 3.8% of spells resulted in exits to permanent housing. Thus, before controlling for covariates we see that mean spells per client and mean shelter nights per spell

decreased between 2019 and 2021-2022 while the percentage of exits to permanent housing increased. We also see clear differences between 24/7 and overnight models in 2021-2022, with clients who primarily used the former experiencing much longer stays and exiting to permanent housing at much higher rates, on average.

**Table 5** also highlights a significant limitation to our quantitative analysis - a large proportion of observations in both the client-level and episode-level datasets were missing data about the final exit destination of the client. This limitation has multiple implications for the mean outcomes shown at the top of the table and the results of our regression analyses. First, many spells with missing exit destination data likely ended in exits to permanent housing that were simply unobserved by the county. The percentage of spells ending in permanent housing and the associated odds of exiting to permanent housing are therefore underestimated for each category. The underestimation might be especially large for outcomes of the 2021-2022 overnight shelter model since 74% of clients and 83% of spells that primarily used that shelter type have missing exit data. The only way to account for this shortcoming is to collect more exit destination data. Second, since exit destination data was used to construct homeless spells from entry/exit-level data, access to more exit destination data would also change the total number of episodes and clients observed in each dataset. As noted above, to attempt to account for this we constructed episodes in two ways: first by treating all missing exit destination data that occurs at a 7 day or longer juncture between two episodes like exits to permanent housing (results shown here) and second by treating all such cases like exits to homelessness. The actual number of episodes that would result from having complete exit destination data must lie somewhere between those two extremes, so for this situation we believe it is reasonable to interpret our outcomes as approximating bounds on what would be observed with full information.

Finally, it is worth noting that missing exit destination data can be considered as a sort of outcome for the two periods and shelter models as well. While we do not include it in our regression analysis, **Table 5** suggests that more shelter spells had incomplete exit destination data in the 2021-2022 period than in 2019 at the time the reports were pulled for this analysis in late January and early February of 2023. This could simply be due to incomplete reporting at the time, which we tried to account for by shifting the latter period so that it ended by September of 2022. It could also suggest that shelters had a harder time completing exit interviews or otherwise collecting exit data in 2021-2022.

**Table 4:** Summary statistics for client-level data by shelter year/model.

Variables	2019 Overnight	2021-2022 Overnight	2021-2022 24/7 Shelter	2021-2022 Overall
<b>Total Clients</b>	<b>5,088</b>	<b>2,949</b>	<b>1,507</b>	<b>4,456</b>
<b>Age at Entry</b>	44.4	42.6	43.8	43.0
<b>Entry Month</b>	5.5	6.0	6.1	6.1
<b><i>MN Homeless Category</i></b>				
<b>First Time Homeless</b>	1,346 (26.5%)	748 (25.4%)	449 (29.8%)	1,197 (26.9%)
<b>Long Term Homeless</b>	2,014 (39.6%)	1,041 (35.3%)	606 (40.2%)	1,647 (37.0%)
<b>Not Homeless</b>	164 (3.2%)	112 (3.8%)	40 (2.7%)	152 (3.4%)
<b>Multiple Homeless Spells</b>	791 (15.5%)	359 (12.2%)	196 (13.0%)	555 (12.5%)
<b>Unknown</b>	773 (15.2%)	689 (23.4%)	216 (14.3%)	905 (20.3%)
<b><i>Prior Residence</i></b>				
<b>Homeless</b>	2,504 (49.2%)	1,289 (43.7%)	779 (51.7%)	2,068 (46.4%)
<b>Institutional</b>	388 (7.6%)	196 (6.6%)	76 (5.0%)	272 (6.1%)
<b>Permanent/Transitional Housing</b>	1,404 (27.6%)	752 (25.5%)	440 (29.2%)	1,192 (26.8%)
<b>Unknown/Other</b>	792 (15.6%)	712 (24.1%)	212 (14.1%)	924 (20.7%)
<b><i>Gender</i></b>				
<b>Male</b>	3,754 (73.8%)	2,087 (70.8%)	842 (55.9%)	2,929 (65.7%)
<b>Female</b>	1,214 (23.9%)	652 (22.1%)	628 (41.7%)	1,280 (28.7%)
<b>Transgender/Other</b>	34 (0.7%)	29 (1.0%)	15 (1.0%)	44 (1.0%)
<b>Unknown</b>	86 (1.7%)	181 (6.1%)	22 (1.5%)	203 (4.6%)
<b><i>Race</i></b>				
<b>White</b>	1,690 (33.2%)	1,025 (34.8%)	407 (27.0%)	1,432 (32.1%)
<b>American Indian/Alaskan Native</b>	374 (7.4%)	189 (6.4%)	381 (25.3%)	570 (12.8%)
<b>Asian</b>	69 (1.4%)	50 (1.7%)	25 (1.7%)	75 (1.7%)
<b>Black or African American</b>	2,559 (50.3%)	1,279 (43.4%)	553 (36.7%)	1,832 (41.1%)
<b>Native Hawaiian/Pacific Islander</b>	45 (0.9%)	23 (0.8%)	10 (0.7%)	33 (0.7%)
<b>Multiple Races</b>	280 (5.5%)	140 (4.7%)	93 (6.2%)	233 (5.2%)
<b>Unknown</b>	71 (1.4%)	243 (8.2%)	38 (2.5%)	281 (6.3%)
<b><i>Ethnicity</i></b>				
<b>Non-Hispanic</b>	4,653 (91.5%)	2,439 (82.7%)	1,298 (86.1%)	3,737 (83.9%)
<b>Hispanic</b>	364 (7.2%)	223 (7.6%)	150 (10.0%)	373 (8.4%)
<b>Unknown</b>	71 (1.4%)	287 (9.7%)	59 (3.9%)	346 (7.8%)
<b><i>Disability Status</i></b>				
<b>Not Disabled</b>	1,566 (30.8%)	867 (29.4%)	442 (29.3%)	1,309 (29.4%)
<b>Disabled</b>	2,754 (54.1%)	1,370 (46.5%)	838 (55.6%)	2,208 (49.6%)
<b>Unknown</b>	768 (15.1%)	712 (24.1%)	227 (15.1%)	939 (21.1%)
<b><i>Veteran Status</i></b>				
<b>Not a Veteran</b>	4,654 (91.5%)	2,566 (87.0%)	1,378 (91.4%)	3,944 (88.5%)
<b>Veteran</b>	353 (6.9%)	182 (6.2%)	66 (4.4%)	248 (5.6%)
<b>Unknown</b>	81 (1.6%)	201 (6.8%)	63 (4.2%)	264 (5.9%)

**Table 5:** Mean outcomes and Exit Destination Data Gaps by Predominant Shelter Model and Period



Outcome Variable	2019 Overnight	2021-2022 Overnight	2021-2022 24/7 Shelter	2021-2022 Overall
Spells per Client	1.6	1.4	1.3	1.4
Shelter Nights per Spell	45.6	17.3	74.7	33.3
Exits to Permanent Housing (% of spells)	213 (2.6%)	28 (0.6%)	206 (12.0%)	234 (3.8%)
Percentage of Dataset Missing Exit Destination Data				
Clients	58.8%	74.4%	45.0%	64.4%
Spells	67.8%	82.9%	50.1%	73.8%

## Regression Models and Results

### Number of Shelter Episodes Initiated per Client

Using client-level data, we modeled the number of homeless episodes initiated in a given year-long observation period as follows:

$$(1) \text{ Number of Spells}_i = \beta_0 + \beta_1(2022 \text{ Overnight})_i + \beta_2(2022 \text{ 24/7})_i + [\alpha_k][\text{covariate}_k]_i + \varepsilon_i$$

...where  $\varepsilon_i$  is an error term, “[covariate<sub>k</sub>]” is a vector of our control variables and “2022 Overnight” and “2022 24/7” are indicator variables that take values of 1 if the client primarily relied on the respective shelter model in 2022 and values of 0 otherwise. Single adult clients who primarily relied on overnight shelters in 2019 thus serve as the comparison group. Note that because of how we have defined the groups, clients from the 2019 cohort may also appear in one of the 2022 cohorts - that fact does not impact our interpretation.

The estimated coefficients for each iteration of model (1) are displayed in Appendix B. When no covariates are controlled for in the model, the estimated effects suggest that clients who primarily stayed in 2022 24/7 shelters had 0.33 fewer spells and clients who primarily stayed in Overnight shelters in 2022 had 0.178 fewer spells compared to clients who stayed in shelters in 2019, which is consistent with the values in Table 5. Once all covariates are held constant, the regression model estimates that 24/7 shelters were associated with 0.256 fewer episodes of homelessness per client and Overnight models were associated with 0.062 fewer episodes compared to shelters in 2019. These estimates were found to be statistically significant at the predetermined 0.05 significance threshold.

The results in Appendix B also allow us to infer a comparison of Overnight shelters and 24/7 shelters in 2022. During that period, once all covariates are held constant, the model estimates that 24/7 shelters were associated with 0.194 fewer episodes of homelessness per client than Overnight shelters.

### Shelter Nights per Episode

Using spell-level data, we modeled the number of nights spent in emergency shelter per spell as follows:

$$(2) \text{ Shelter Nights}_i = \beta_0 + \beta_1(2022 \text{ Overnight})_i + \beta_2(2022 \text{ 24/7})_i + [\alpha_k][\text{covariate}_k]_i + \varepsilon_i$$

...where  $\varepsilon_i$  is an error term, “[*covariate<sub>k</sub>*]” is a vector of our control variables, and “2022 Overnight” and “2022 24/7” are indicator variables that take values of 1 if the spell primarily took place in the respective shelter model during 2022 and values of 0 otherwise. Spells that were initiated in 2019 thus serve as the comparison group.

The estimated coefficients for each iteration of model (2) are displayed in **Appendix C**. Holding all covariates equal, spells that primarily took place in 24/7 shelters during the 2021-2022 period lasted an estimated 32.5 nights longer on average than spells in 2019. Meanwhile, spells that primarily took place in Overnight shelters in 2021-2022 lasted 24.4 fewer nights, on average, than spells in 2019. The 24/7 model was therefore associated with much longer shelter stays on average when comparing the 2022 models directly - almost 57 nights longer. All of these estimates were found to be statistically significant at the predetermined 0.05 significance threshold.

To explore potential differences by year and model for indigenous clients specifically, Model (2) was also run with interaction terms between American Indian/Alaskan Native and the primary shelter model variables (results not shown). After controlling for other covariates, the coefficients for both interaction terms were not found to be statistically significant at the 0.05 significance level, but the point estimates were both positive: 10.7 and 11.7 nights per spell for 2022 Overnight and 2022 24/7 shelters, respectively. Without the interaction terms, the model estimates that indigenous clients spent about 12 fewer nights in shelter per spell, controlling for other covariates. When the interaction terms are included, that main effect decreases further to almost 18 fewer nights. While inconclusive, this does suggest that American Indian/Alaskan Natives may have greater increases in length of stay in both types of shelters in 2022 relative to 2019 after controlling for other covariates. Notably, the coefficients on both main shelter model variables did not change significantly after including these interactions, suggesting that those effects were not simply due to increased representation of indigenous clients in the population composition.

### Exits to Permanent Housing

Using spell-level data, we used logistic regression to model the odds that a spell results in an exit to permanent housing as follows:

$$(3) \quad \ln(\text{odds}_{i,t}) = \beta_0 + \beta_1(2022 \text{ Overnight})_i + \beta_2(2022 \text{ 24/7})_i + [\alpha_k][\text{covariate}_k]_i + \varepsilon_i$$

...where  $\varepsilon_i$  is an error term, “[*covariate<sub>k</sub>*]” is a vector of our control variables, and “2022 Overnight” and “2022 24/7” are indicator variables that take values of 1 if the spell primarily took place in the respective shelter model during 2022 and values of 0 otherwise. Spells that were initiated in 2019 thus serve as the comparison group. Notably, we also include the number of nights spent in shelter during the observed spell as a covariate for this model.

The estimated coefficients for each iteration of model (3) are displayed in Appendix D. On average, spells spent predominantly at 24/7 shelters in 2021-2022 had significantly greater odds of resulting in an exit to permanent housing than spells that occurred predominantly in Overnight shelters, both in 2019 and 2021-2022. Spells spent predominantly in Overnight shelters in 2022 were associated with lower odds of exiting to permanent housing on average than those in 2019. Converting the coefficients from Appendix D to odds ratios, after controlling for all other covariates 2022 24/7 shelters were associated with an estimated 6-fold increase in the odds of exiting to permanent housing compared to 2019, whereas 2022 Overnight shelters were associated with a decrease to 1/3 the odds seen in 2019. All these estimates were found to be statistically significant at the predetermined 0.05 significance threshold.

To explore potential differences by year and model for indigenous clients specifically, Model (3) was also run with interaction terms between American Indian/Alaskan Native and the primary shelter model variables. In this case, the coefficients for both interaction terms were found to be statistically significant at the 0.05 level. Further, the estimated coefficients were very positive: 1.56 and 1.29 for 2022 Overnight and 2022 24/7 shelters respectively. The effect of the main AI/AN variable was also no longer statistically significant after including the interactions. This provides convincing evidence that indigenous clients had significantly greater increases in the odds of exiting to permanent housing in 2021-2022 relative to 2019 than other shelter users, regardless of the shelter model accessed.

## Conclusions and Limitations

After controlling for client-level covariates, our models estimate that clients who primarily accessed 24/7 shelters in 2021-2022 initiated 0.26 fewer spells, stayed 32 additional nights in shelter, and had about 6 times greater odds of exiting to permanent housing on average, relative to clients who primarily used Overnight shelters in 2019. Meanwhile, clients who primarily accessed Overnight shelters in 2021-2022 were also estimated to have initiated 0.06 fewer spells but stayed 24 fewer nights in shelter and had about one-third the odds of exiting to permanent housing on average, relative to clients from 2019.

These results suggest that the 24/7 and Overnight models might have tradeoffs in their effects on two of the three outcomes we examined. Specifically, in the 2021-2022 period 24/7 shelters were associated with longer stays but greater odds of exiting to permanent housing, while Overnight shelters were associated with shorter stays and lower odds of exiting to permanent housing. Though a direct causal claim cannot be made, it seems reasonable to suspect that these differences are in part due to the additional resources typically available for clients staying at 24/7 shelters.

To compare the net outcomes of the mixed 24/7 and Overnight system in 2021-2022 to the essentially Overnight-only system from 2019, we also ran each of our models with time period as our independent variable (**Appendix E**). On average, clients in the 2021-2022 period experienced fewer spells, shorter stays, and greater odds of exiting to permanent housing than those in 2019 after holding other covariates constant. We interpret these findings as evidence that the mixed-model system performed just as well as, if not slightly better than, the Overnight only system from 2019.

As noted above, female and indigenous clients both grew as proportions of the single adult population in 2021-2022 relative to 2019. Our results suggest that, at least for the latter group, the odds of exiting to permanent housing also improved in 2021-2022 regardless which shelter model was primarily accessed. This may indicate that the County's efforts with partners such as AICDC Homeward Bound to improve services for indigenous clients have had some success.

Several limitations to our quantitative analysis need to be addressed and reiterated. First, the absence of an experimental design limits our ability to make causal inferences, so any causal interpretations based on our models should be made carefully and held loosely. This is especially true given the sheer number of changes to the shelter system that occurred between 2019 and 2022. While we attempted to control for demographic shifts and isolate periods of operation outside of the COVID-19 response, there are undoubtedly many variables that we failed to consider.

Second, as mentioned in the sections "Data Source and Preparation" and "Summary Statistics" above, our analysis is based in part on using exit destination data from the HMIS Core Homeless Programs Reports to construct homeless spells, and that data is far from complete. The analysis presented above treats two spells separated by an exit to an unknown destination lasting 7 days or longer as distinct spells. We also ran our models under the opposite condition in which those spells were instead treated as one continuous spell. The full versions of those models with all covariates included are presented in **Appendix F**. Notably, while the magnitude of estimated associations changed, the *direction* of the effects remained the same using both methods. Except for the association between 2022 24/7 shelters and the number of shelter nights per spell, all

estimated associations between shelter model and outcomes also remained statistically significant at the 0.05 level. Thus, while the exact magnitude of estimated effects would likely change with more complete data, we feel confident that the general relationships between the primary shelter model accessed and our outcome variables would remain the same.

Incomplete exit destination data also impacts the number of observed exits to permanent housing, and given the high proportion of exits with missing destinations there are likely many exits to permanent shelter that were simply unobserved by the County. The models therefore almost certainly underestimate the odds of exiting to permanent housing for each group. As noted above, the only way to alleviate this issue would be to collect more complete exit data.

Third, potential differences in how clients are assigned to shelter types or in how certain groups of clients navigate the shelter system introduce the possibility of unaccounted-for selection bias. For example, clients who have been homeless for long periods of time could have more opportunities to obtain a bed at a 24/7 shelter, and potentially a better understanding of how to pursue those beds in the first place. Since the Adult Shelter Connect system mostly assigns beds on a first-come first-serve basis, one potential method to test for this bias would be to model outcomes based on the initial shelter type clients accessed. If the results differ significantly from those shown here it might suggest that that selection bias is indeed a concern.

A final limitation to our quantitative analysis is that we do not factor monetary costs into our methods. This was partly due to time constraints and partly due to the anticipated complexity of disentangling “normal” costs associated with 24/7 shelter operation from costs that were unique to the COVID-19 response. Future projects might focus on comparing relative costs or performing a full cost-benefit analysis of shelter models.

## Qualitative Analysis Overview

### Data Source

We collected qualitative data by conducting semi-structured interviews with a convenience sample of 15 staff members from Hennepin County Housing Stability and its partners. During these interviews, we followed a script of open-ended questions (see **Appendix G**). We asked follow-up questions and explored additional lines of inquiry as needed. We recorded the interviews and saved the transcripts for analysis.

**Table 6: Interviewees by Organization**

Hennepin County	Simpson	Agate	Homeward Bound	Avivo Village	Catholic Charities	Salvation Army	Our Saviour’s	Rescue Now
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					Higher Ground	Harbor Lights Center	Housing	
7	1	1	0	1	2	1	1	1

**Table 7: Interviewees by Job Function**

Hennepin County Administrator	Social Worker	Shelter Administrator
5	2	8

## **Analytic Method**

We used ATLAS.ti to analyze interview transcripts and search for meaningful themes. After coding, we cross-checked each transcript to ensure triangulation. We also used the interview transcripts to identify illustrative quotes for our findings.

## **Limitations**

Due to limitations in access and availability, we used a convenience, non-probability sample of interviewees. Our sample does not include a staff member from every shelter in Hennepin County. We interviewed both administrative staff and case workers to incorporate diverse perspectives, but our sample does not include perspectives from individuals experiencing homelessness.

Although we did not obtain a representative sample, the breadth and depth of interviewee experience should provide valuable information and allow future researchers to refine their inquiries about single adult homelessness in Hennepin County.

## **Qualitative Findings**

### **Most Effective Uses of Funds**

Interviewees cited the following initiatives as the most effective uses of funding:

Homeless to Housing & Hotels to Housing

Four interviewees mentioned that the Hotels to Housing and Homeless to Housing initiatives were very successful. All four people stated that these programs led a large number of clients to find permanent housing. Three people saw targeted case management as an important aspect of the success of these programs. One person cited the Homeless to Housing team's 97% retention rate for clients in permanent housing.

*"I don't think I'm being hyperbolic by saying that Homeless to Housing is going to be a national best practice, like the idea of having a well-resourced, well-trained, housing-focused case management team that's not tied to any one program, but is only tied to the system and serves people who are sheltered or unsheltered, and get them into housing, stabilizes them, and moves on to the next person."*

*"The goal was that anybody that was moved to the hotel would not move back to shelter, that they would be the recipients of very targeted case management efforts to get them housed, and that was a very successful push."*

Single Room Occupancy Shelters & Residences (e.g., Hotels, AVIVO Village, The Metro, Stevens Square Residence, etc.)

Seven interviewees talked about how having single room occupancy shelters and residencies led to increased client uptake. Six people mentioned that clients enjoyed staying in hotels and AVIVO Village because they could maintain their own space. One person said that SRO models such as The Metro and Stevens Square Residence were appealing to clients who were apprehensive about transitioning to permanent housing.

*"Having the Metro, I saw a lot of clients who were just really on the fence, and really digging in their heels... It opened up their idea of what it would be like to have a room with a door that they can close, and their own bathroom, and their own space, and their own privacy. And when they want to come out and socialize, they can. But they had their own room, and that wasn't a thing in the shelter."*

*"Some people will be really interested, rightfully so, in trying to get into AVIVO Village... They get tiny homes in there, so they have, like, their own space. So of all shelters, it's probably the most desirable."*

Expanded Case Management Services

Seven interviewees acknowledged the value of case management services in housing placement and retention rates. Five people said that investments in case management should be prioritized moving forward. Four people noted that having case managers embedded into the shelter environment was useful in getting clients housed. Four people emphasized that rigorous case management services need to continue once a client is housed.

*“We have case aides that do a lot of leg work... They’re helping people get their IDs, and filling out pages of paperwork for different programs. I would say the best use of our funds is having the staff to do this kind of work.”*

*“The investment in house services like the embedded housing case managers - that’s been a huge value. I don’t think it can be understated how important it is to have people built into the shelter environment that can help people resolve the experience of homelessness.”*

### Diversified, Person-Centered Shelter System

Seven interviewees discussed the importance of a diversified shelter system that could meet a wide variety of needs. They noted that options such as single room occupancy shelters, de-densified shelters, and shelters with culturally specific programming likely led to increased shelter uptake and client satisfaction. Interviewees named AVIVO Village and AICDC Homeward Bound as two organizations that contributed to the diversification of the Hennepin County shelter system.

*“In AICDC, there’s smudging, there’s murals, there’s cultural programming. So it creates a safe space. People feel like it’s for them, and it’s sheltering in a way that more mainstream shelter could not do, because it’s completely different when it’s run by indigenous folks for indigenous folks.”*

*“Some of our other programs also reduce capacity to make it like, more trauma-informed, just a better space, because obviously cramming people in a room isn’t super productive.”*

*“AVIVO Village is very expensive, and it is not for everybody, but it is 100 folks who, in theory, may not have thrived in another setting.”*

### **Benefits of the 24/7 Shelter Model**

#### More Opportunities to Connect With Clients & Better Outcomes

Five interviewees expressed that the 24/7 shelter model enabled them to better connect and work with clients. Whether they needed to convey medical test results, work on documentation, or discuss housing preferences, interviewees could find clients quickly and easily in 24/7 shelters. All five interviewees associated the expansion of 24/7 shelter with improved outcomes in housing placement and retention.

*“It’s easier to help and support people if there’s a predictable place where we know they’re going to be during the day, so that we can connect with folks, share information, and discuss next steps.”*



*“We can do a lot more business things with people. So we added a Housing Navigator position, separate from other operations, whose sole focus is working with people on their housing.”*

*“There are a lot of different factors going into that... but we did have a 31% increase in our access to permanent housing from 2021 to 2022 during the transition to 24/7.”*

### Increased Safety

Four interviewees stated that extending shelter hours of operation led to greater safety. Three people noted a reduction in violent incidents, which they attributed to clients feeling less stressed, more stable, and better rested. Additionally, two people mentioned that clients in 24/7 shelters did not have to contend with extreme Minnesota weather; they could remain safely indoors.

*“The number of violent incidents has decreased. So, they were seeing a lot previously because every person could only check in around 4, and they’d have to leave in the morning. There were a lot more people wandering around during the day, not getting good sleep. So, I think just having a more stable place to be able to get rest has reduced some conflict.”*

*“A big pro is that the clients are not having to go outside in the winter.”*

### Convenience & Dignity

Seven interviewees spoke about the convenience and dignity that 24/7 shelter offers. Five people noted that shelter clients preferred being able to come and go as needed, and four people mentioned that clients could attend appointments or work without worrying about finding a place to sleep. Two people saw 24/7 shelters as more dignified than overnight-only shelters.

*“People are able to have a benefit. They can go back and forth to their shelter. They can go to an appointment and then go take a shower. They can go work out and come back and feel like a human, right?”*

*“I’ve noticed that they’re very grateful, because they can come in after an overnight shift and find a place to sleep. For clients who have appointments, they can go to their appointment and come back. Clients are happy that they don’t have to be just right back to the streets.”*

## **Challenges of the 24/7 Shelter Model**

### Increased Operational Costs & Needs

Nine interviewees cited increased costs as one of the challenges that came along with extending shelter hours. All nine people noted that it was particularly challenging to staff 24/7 shelters. It was especially expensive to hire competitively since most shelters had to increase wages during

the pandemic. It was difficult to fill all of the vacancies and retain existing shelter staff, given the challenging nature of the work. Three interviewees mentioned that shelter operating costs had increased because shelters had to provide additional meals and other resources during daytime hours. One person said that the cost of utilities had increased, and another person stated that hiring managers to supervise additional staff members was costly, too.

*“A big concern with going 24/7 is it does require a lot more staffing, supervision, and more meals. So just like, increased costs.”*

*“Because we were open additional hours, we had to add more people, and we had to add more management/supervisor-type folks. And then the food costs a lot... And so recently, we’ve hired a kitchen person to prepare food on site, which hopefully is gonna reduce our costs.”*

### Longer Lengths of Stay

Six interviewees associated the expansion of 24/7 shelter operations with longer lengths of stay for clients. Four people stated that it was difficult to determine when a client should no longer stay in a 24/7 shelter, and three people expressed a desire for additional measures to ensure that shelter is not a substitute for long-term housing. Three people said that improving shelter outflow would make more shelter beds available for new clients.

*“So, the shelter length of stay is becoming longer. And I attribute that to, you know, during the pandemic... they did a good job facilitating placement with resources for people from the hotels. But, there’s only so much you can do. So, the subset of the population that remained in congregate spaces didn’t get as much attention.”*

*“I think we need to ask ourselves the hard questions about actually having people leaving shelter if they’re not moving forward with trying to move out of shelter.”*

*We’ve really had to hold steady to our 30-day beds. If they’re not working towards case management or goals, then we have to let them go at the end of those 30 days.”*

### Behavior Management

Five interviewees mentioned that 24/7 shelters led to challenges with behavior management. Two people noted that some clients chose to sleep during the day, which could lead to them missing appointments or being disruptive at night. Two people said that 24/7 shelters were not adequately equipped to meet the needs of clients with severe behavioral health issues. One person stated that extending shelter hours of operation necessitated more behavior management.

*“The sleeping during the day part, though, poses kind of a challenge, because people are not, maybe, meeting with their case worker when they need to.”*

*“If I’m a smaller shelter and I serve 25 people, 24-hour shelter is easier to manage and run, right? Just fewer bodies to manage, fewer behaviors to manage, fewer interpersonal things to manage.”*

## **Barriers to Obtaining Shelter/Permanent Housing**

### Shelter Bed Availability

Five interviewees expressed that limited bed availability can present a barrier to shelter access and uptake. Two people mentioned that it is particularly difficult to meet the demand for shelter beds in winter. Two people stated that it can be difficult for clients to call back later in the day to check on bed availability. One person said that it is often challenging to find shelter beds for youth ages 20-24.

*“[Shelter] is still not sufficient to the need. There’s just a lot of folks experiencing homelessness right now.”*

*“We just do not have enough shelter beds, a lot of the time, to meet the demand.”*

### Shelter Structure and Policies

Five interviewees mentioned that shelter structure and policies can present a barrier to shelter uptake. Three people said that some clients do not want to stay in a congregate setting, so they avoid shelter if there are no available single-occupancy rooms. Two people expressed that sometimes, clients do not want to comply with shelter policies involving curfew and storage space. They also said that some clients do not like shelter policies regarding substance use, even if these policies are less restrictive and geared toward harm reduction.

*“We offer a harm reduction approach, but people can’t openly use in the shelter space, right? So we don’t turn people away, we don’t breathalyze individuals, but we kind of monitor and track behaviors.”*

*“The reality is that the majority of people in our community would not want to reside in a congregate space.”*

### Communication with Clients

Four interviewees said that they had difficulty communicating with clients, which could present a barrier to obtaining emergency shelter and/or permanent housing. All interviewees discussed the challenge of getting in touch with clients without phones, though two interviewees said that it was easier when clients were staying in 24/7 shelters. This is because interviewees knew where

to find clients in person if they were staying in 24/7 shelters. Furthermore, one interviewee mentioned that it was difficult for clients without phones to call and check on emergency shelter bed availability.

*“So the biggest barrier, when I find myself having to close, is that we can't locate folks and there's no way to find them, because they're not showing up in any of our systems. They don't have any numbers. They don't have any family. And, I don't know if we have a good way to find them unless they're just really well known in the community, and, you know, they might pop up here and there.”*

*“The phone thing we have had some tools to address, which is great. We've just been talking about this recently, actually, because we have had access to some phones, and it's made a big difference in terms of case managers being able to stay in touch with clients, and to be able to move more quickly towards housing.”*

*“I think one of the big ones I brought up, and I brought this up in a meeting as well, is some of the male-identified shelter beds where someone does not have a phone. Like, if I call at 4:00 with a male-identified person, chances are their shelter beds are gonna be full. So they'll tell them to call back, it's either 8:30 or 9:30, but all the libraries close then. And libraries are a main function for people who need to use phones, if they don't have one.”*

### Documentation

Four interviewees mentioned that obtaining proper documentation presented a challenge for clients seeking permanent housing. Three people stated that they often had to work very hard to obtain clients' vital documents, such as a Social Security card or an ID. One person mentioned that documentation requirements were especially burdensome for clients with disabilities or clients born outside the US.

*“One of the barriers was that he had to complete some sort of disability paperwork and get a diagnosis in order to be eligible. And so we just could not get him to show up for his appointment because he was so transient, because he didn't have the skills to keep track of these things. And he'd try. He would show up, it'd be the wrong day one time, and somehow they were able to navigate that. And so they got him into the house, and then had him do whatever paperwork. But I think those types of things cause more barriers for our clients that really need support.”*

*“If their barrier is that their immigration status prevents them from getting an ID, or getting county benefits, or getting GRH funding, that really limits where we can refer them to.”*

*“A lot of other people come in and they're missing vital documents like a birth certificate or a Social Security card or an ID. And we have to start from that place with them.”*

### **Suggestions for Improving Outcomes**

### Make Adjustments to Adult Shelter Connect

Three interviewees suggested potential improvements to the process of placing clients in shelters. One person suggested adjusting the Adult Shelter Connect hours of operation to better coincide with the hours of operation for 24/7 shelters. They noted that it was especially difficult for male-identified clients to call and check shelter bed availability at 8:30 pm, after libraries closed and clients no longer could access a phone. Two other people suggested using the Adult Shelter Connect to optimize client placements, moving clients who get stuck in one shelter to another shelter with different services or hours of operation.

*“I think ideally, when we set up the system, we were hoping that the ASC would have the ability to move people around and say, like, ‘Okay, this person is stuck at the Salvation Army shelter. We should try to move them over here and see if getting additional support will help them.’ And what wound up happening is more of a triage situation where it’s first come, first serve.”*

*“If there’s someone in an overnight shelter who’s been there a really long time, instead of making them go through our shelter access point, can we just move them to an extended stay bed?”*

### Emphasize Safety and Dignity in Shelters

Six interviewees discussed methods for making shelters safer and more dignified. Their ideas ranged from offering more culturally sensitive services to improving shelter security. Five people emphasized the importance of low-density and single room occupancy shelters to promote privacy and individualized care. Four others suggested expanding shelter healthcare resources by offering more mental health services and partnering with organizations such as Healthcare for the Homeless. Three people mentioned the need to provide additional shelter services for specialized populations: older adults and LGBTQIA+ persons.

*“I think we just need really individualized care for folks. We have lots of different circumstances that contribute to folks being where they’re at, and lots of different solutions need to be considered when we’re looking at overcoming barriers.”*

*“I think a lot of LGBTQIA folks I work with, or nonbinary folks, just might put themselves in more dangerous and vulnerable situations because they really don’t want to be in shelter, which is a dangerous situation. So, I think there’s a real need for there to be an LGBTQIA-specific shelter that’s run by staff who have lived experience or who are really knowledgeable.”*

### Expand Shelter and Case Management Capacity

Nine interviewees’ suggestions involved increasing the availability of shelter beds and the capacity for case management. Four people brought up the need for more shelter beds, and four people advocated for investments in additional shelter staff and expanded shelter operations.

Two people talked about increasing case management capacity by hiring additional case aides and offering more drop-in housing support services.

*“We don’t have enough beds in the system... I know that’s something that the powers that be do not like to hear, because there is a challenge in terms of, how many beds is enough?... But, we’ve shown that we still need more.”*

*“We’ve had to increase our wages exponentially since the pandemic, just to be able to keep our doors open. And the money we’re receiving is not keeping pace with that.”*

*“I think there’s a really, really, really big need for more drop-in housing support services. And what I mean by that is, I think the strength in [our] program is that we work with a lot of folks who do not always thrive in a case management setting... When I think about unsheltered folks, or folks with mental illness, or folks struggling with substance use, that is a huge ask for them to remember an appointment, not be in crisis at that time, and get a good night’s sleep beforehand so they can get up and go to a meeting.”*

### Strengthen the Continuum of Services

Six interviewees discussed ways to strengthen the continuum of housing services. Three people advocated for more collaboration between shelter systems, shelter staff, and social workers. Another person suggested clarifying and solidifying the continuum of services such as diversion, rapid re-housing, emergency shelter, transitional housing, and permanent supportive housing. That person also stressed the importance of offering hassle-free transitions between these services. Two people suggested offering more quality wraparound services. One person recommended prioritizing housing retention rates as measurement of success and, if possible, tracking retention rates for a longer period of time. Another person proposed incentivizing community education classes for newly-housed clients to increase retention rates.

*“Now that we finally have diversion, we have prevention, we have rapid rehousing, we have transitional housing, we have permanent supportive housing, are we offering hassle-free transitions through all of those programs? Nope, we aren’t. So we have bottlenecks and clogs and jams, and putting people in inappropriate systems because that’s where the capacity is, regardless of if they’re appropriate or not.”*

*“It’s not uncommon for us to encounter individuals who may be connected to a number of different people providing services. And I know Housing Stability works really hard to use HMIS to help mitigate some of that overlap. And I think that has good potential to help for people that have access to HMIS.”*

*“We have a bunch of free education classes, but sometimes you’ve gotta incentivize people to get in the door so they can receive information. And then they can use that information in their day-to-day life.”*

## Discussion

These interviews illustrate the importance of addressing homelessness with a person-centered approach. Many of the recent shelter system changes - opening AICDC Homeward Bound and AVIVO Village, de-densifying congregate shelters, extending shelter hours, and ramping up case management - provided opportunities for individualized support and case management. Hennepin County has made shelters more dignified and accessible by extending shelter hours of operation and offering culturally specific and single-room occupancy shelters. Hennepin County should continue to fund these initiatives and, if possible, expand the availability of single-room occupancy shelters, create an LGBTQIA-specific shelter, and embed more healthcare services within the shelter environment. These changes could allow shelter staff and case managers to better serve their clients, and they may lead to greater shelter uptake, especially among vulnerable populations.

One of the biggest challenges with 24/7 shelter is ensuring that it remains a temporary measure, not a substitute for permanent housing. One possible solution to this challenge involves using Adult Shelter Connect to track client progress and identify clients that are stuck in shelter. It may be worthwhile for Hennepin County and its partners to consider how to alter their use of Adult Shelter Connect to identify and relocate clients who would be better served with a different program. Another possible solution involves clarifying requirements for extended shelter stays and ensuring that clients who do not meet the requirements are asked to leave shelter. This option does not align with Hennepin County's goals of making homelessness rare, brief, and non-recurring, so we suggest only using it as a last resort. To avoid situations where clients get stuck in shelter, Hennepin County should continue to invest in case management, which can lead to positive housing outcomes even for challenging clients.

Of course, expanding services and shelter hours of operation requires ample and consistent funding. Several interviewees discussed how difficult it can be to obtain funding for social services, especially for single adult homelessness. Interviewees said that the influx of COVID-19 funds helped them establish a comprehensive system to address single adult homelessness, but they reiterated their need for funding to maintain what they've established. Continuing to invest in homelessness services for single adults would allow folks at Hennepin County to respond to new challenges while maintaining the progress they've made. It would enable partner shelters to strategically plan without worrying about having their funding cut off. If Hennepin County Housing Stability can acquire adequate funding to sustain its initiatives, its shelter usage data will paint an increasingly clear picture of the associated outcomes over time. Moreover, it is crucial that future funding is flexible so that it can meet the full spectrum of client needs. Flexible funding allows Hennepin County and its partners to offer unique interventions for each client - from mediation, to diversion, to case management. Recent investments in single adult homelessness services have shown great promise, and they should be maintained.

As one interviewee stated: *“What the pandemic did, by bringing this funding online, was show what can be done if you’re actually trying to end homelessness rather than just sustain it. You spend money well, it can work. But you’ve gotta keep letting us spend it, well.”*

## **Conclusion**

In our examination of Hennepin County’s expansion of low-barrier, 24/7 emergency shelter, the quantitative and qualitative findings work in concert.

The quantitative results suggest that a mix of shelter models, both 24/7 and overnight, might be associated with better client outcomes while retaining system flexibility and capacity. The qualitative results support this finding, suggesting that increasing the availability of 24/7 shelter leads to improved housing placement & retention outcomes, but that overnight shelters remain necessary for shelter bed availability - Interviewees anticipated that without the churn from overnight shelter beds, their system would lock up.

The quantitative results also suggest that Indigenous Americans and female-identifying persons have been most likely to use 24/7 shelters. This could be due to the fact that person-focused support services are increasingly available and more easily accessible in 24/7 shelters. The qualitative results support this finding as well. Shelter administrators and case managers alike noted that 24/7 hours of operation allowed them to more easily connect with clients - thereby building trust and handling logistics needed for permanent housing placement.

Aside from the Suggestions for Improving Outcomes that we shared earlier in the paper, we conclude with two recommendations:

First, maintain a mix of 24/7 shelters *and* overnight shelters. Offering a variety of shelter environments could help maximize shelter uptake, maintain the availability of shelter beds, and sustain positive results in permanent housing placement.

Second, to address longer lengths of stay, continue to invest in making case management available and accessible. Working with case managers can help clients address the barriers impeding their willingness or ability to obtain permanent housing. Additionally, employ Adult Shelter Connect and the Homeless Management Information System strategically to keep tabs on clients who are getting “stuck” in shelter, and then to communicate with partners to see whether those clients might be better served in another location or with another intervention.



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## Appendix A: Summary Statistics for Spell-level Data by Shelter Year/Model

Variables	2019 Overnight	2021-2022 Overnight	2021-2022 24/7 Shelter	2021-2022 Overall
<b>Total Spells</b>	<b>8,207</b>	<b>4,468</b>	<b>1,733</b>	<b>6,201</b>
<b>Age at Entry</b>	44.6	42.8	44.0	43.2
<b>Entry Month</b>	6.1	6.4	6.5	6.4
<b><i>MN Homeless Category</i></b>				
<b>First Time Homeless</b>	1,979 (24.1%)	1,092 (24.4%)	512 (29.5%)	1,604 (25.9%)
<b>Long Term Homeless</b>	3,934 (47.9%)	1,839 (41.2%)	726 (41.9%)	2,565 (41.4%)
<b>Not Homeless</b>	221 (2.7%)	151 (3.4%)	42 (2.4%)	193 (3.1%)
<b>Multiple Homeless Spells</b>	1,224 (14.9%)	579 (13.0%)	233 (13.4%)	812 (13.1%)
<b>Unknown</b>	849 (10.3%)	807 (18.1%)	220 (12.7%)	1,027 (16.6%)
<b><i>Prior Residence</i></b>				
<b>Homeless</b>	4,812 (58.6%)	2,276 (50.9%)	937 (54.1%)	3,213 (51.8%)
<b>Institutional</b>	562 (6.8%)	281 (6.3%)	88 (5.1%)	369 (6.0%)
<b>Permanent/Transitional Housing</b>	1,972 (24.0%)	1,073 (24.0%)	493 (28.4%)	1,566 (25.3%)
<b>Unknown/Other</b>	861 (10.5%)	838 (18.8%)	215 (12.4%)	1,053 (17.0%)
<b><i>Gender</i></b>				
<b>Male</b>	5,984 (72.9%)	3,128 (70.0%)	954 (55.0%)	4,082 (65.8%)
<b>Female</b>	2,046 (24.9%)	1,065 (23.8%)	737 (42.5%)	1,802 (29.1%)
<b>Transgender/Other</b>	66 (0.8%)	46 (1.0%)	18 (1.0%)	64 (1.0%)
<b>Unknown</b>	111 (1.4%)	229 (5.1%)	24 (1.4%)	253 (4.1%)
<b><i>Race</i></b>				
<b>White</b>	2,626 (32.0%)	1,560 (34.9%)	476 (27.5%)	2,036 (32.8%)
<b>American Indian/Alaskan Native</b>	628 (7.7%)	288 (6.4%)	421 (24.3%)	709 (11.4%)
<b>Asian</b>	104 (1.3%)	79 (1.8%)	28 (1.6%)	107 (1.7%)
<b>Black or African American</b>	4,211 (51.3%)	1,995 (44.7%)	639 (36.9%)	2,634 (42.5%)
<b>Native Hawaiiin/Pacific Islander</b>	64 (0.8%)	41 (0.9%)	10 (0.6%)	51 (0.8%)
<b>Multiple Races</b>	485 (5.9%)	215 (4.8%)	115 (6.6%)	330 (5.3%)
<b>Unknown</b>	89 (1.1%)	290 (6.5%)	44 (2.5%)	334 (5.4%)
<b><i>Ethnicity</i></b>				
<b>Non-Hispanic</b>	7,483 (91.2%)	3,802 (85.1%)	1,481 (85.5%)	5,283 (85.2%)
<b>Hispanic</b>	642 (7.8%)	330 (7.4%)	179 (10.3%)	509 (8.2%)
<b>Unknown</b>	82 (1.0%)	336 (7.5%)	73 (4.2%)	409 (6.6%)
<b><i>Disability Status</i></b>				
<b>Not Disabled</b>	2,385 (29.1%)	1,301 (29.1%)	506 (29.2%)	1,807 (29.1%)
<b>Disabled</b>	4,989 (60.8%)	2,322 (52.0%)	996 (57.5%)	3,318 (53.5%)
<b>Unknown</b>	833 (10.1%)	845 (18.9%)	231 (13.3%)	1,076 (17.4%)
<b><i>Veteran Status</i></b>				
<b>Not a Veteran</b>	7,610 (92.7%)	3,975 (89.0%)	1,591 (91.8%)	5,566 (89.8%)
<b>Veteran</b>	510 (6.2%)	260 (5.8%)	76 (4.4%)	336 (5.4%)
<b>Unknown</b>	87 (1.1%)	233 (5.2%)	66 (3.8%)	299 (4.8%)

## Appendix B: Multiple Regression Table - Models of Episodes Initiated per Client

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)
2022 Overnight	-0.178*** (0.026)	-0.128*** (0.025)	-0.079*** (0.025)	-0.073*** (0.025)	-0.070*** (0.025)	-0.062** (0.025)
2022 24/7	-0.303*** (0.033)	-0.245*** (0.031)	-0.246*** (0.031)	-0.267*** (0.031)	-0.255*** (0.032)	-0.256*** (0.032)
Entry Month		-0.087*** (0.003)	-0.080*** (0.003)	-0.081*** (0.003)	-0.081*** (0.003)	-0.081*** (0.003)
Age at Entry		0.001 (0.001)	0.0003 (0.0008)	0.0006 (0.0008)	0.0006 (0.0009)	0.00004 (0.0009)
<i><u>MN Homeless Category</u></i>						
Long Term			0.314*** (0.026)	0.313*** (0.026)	0.315*** (0.026)	0.270*** (0.027)
Not Homeless			0.091 (0.061)	0.092 (0.061)	0.092 (0.061)	0.081 (0.061)
Multiple Episodes			0.155*** (0.031)	0.155*** (0.031)	0.159*** (0.031)	0.140*** (0.031)
Unknown			0.093 (0.084)	0.100 (0.084)	0.106 (0.084)	0.178* (0.094)
<i><u>Prior Residence</u></i>						
Institutional			-0.158*** (0.044)	-0.159*** (0.044)	-0.149*** (0.044)	-0.154*** (0.044)
Permanent/Transitional			-0.091*** (0.027)	-0.097*** (0.027)	-0.099*** (0.027)	-0.086*** (0.027)
Unknown/Other			-0.285*** (0.083)	-0.286*** (0.083)	-0.285*** (0.083)	-0.220** (0.086)
<i><u>Gender</u></i>						
Female				0.112*** (0.025)	0.125*** (0.025)	0.104*** (0.025)
Transgender/Other				0.209* (0.119)	0.212* (0.119)	0.183 (0.119)
Unknown				-0.098 (0.063)	-0.093 (0.063)	-0.085 (0.064)
<i><u>Race (HUD)</u></i>						
AI/AN					-0.0393 (0.040)	-0.0338 (0.040)
Asian					0.066 (0.089)	0.068 (0.089)
Black					0.066*** (0.025)	0.067*** (0.025)
NH/PI					0.0005 (0.120)	0.007 (0.120)
Multiple					0.051 (0.050)	0.040 (0.050)
Unknown					0.033 (0.069)	0.043 (0.069)

<i>Ethnicity</i>						
Hispanic					0.097**	0.100**
					(0.042)	(0.042)
Unknown					-0.026	-0.014
					(0.063)	(0.064)
<i>Disability Status (HUD)</i>						
Disabled						0.152***
						(0.026)
Unknown						-0.094
						(0.072)
<i>Veteran Status</i>						
Veteran						-0.111**
						(0.045)
Unknown						0.013
						(0.066)
Constant	1.610***	2.047***	1.916***	1.885***	1.836***	1.794***
	(0.016)	(0.046)	(0.051)	(0.051)	(0.055)	(0.055)
Observations	9,544	9,544	9,544	9,544	9,544	9,544
R-squared	0.011	0.089	0.119	0.121	0.123	0.127

**Regression Table 1:** Multiple OLS regression of the number of homeless episodes initiated by client on the predominant shelter model accessed by the client throughout the full year and several covariates. Data aggregated from 2019, 2021 and 2022 HMIS Core Report Entry/Exit data for two one-year periods of interest: Jan 1-Dec 31, 2019 and Sep 1, 2021-Aug 31, 2022. For predominant shelter model, the omitted class is 2019 Overnight shelters. Entry month refers to the ordinal month in which the client began their first episode of the period, with 1 representing Jan, 2019 and Sep, 2022 for the two periods, respectively. Age at entry is the client age in years upon first entering shelter for the observed spell. Remaining covariate indicator variables are based on MN/HUD definitions for degree of homelessness, residence immediately prior to entry, gender, race, ethnicity, disability and veteran status. Omitted cases for those covariates are “First time homeless,” “Homeless,” “Male,” “White,” “Non-Hispanic,” “Not Disabled,” and “Not a Veteran,” respectively. Standard errors shown in parentheses. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

### Appendix C: Multiple Regression Table - Models of Shelter Nights per Episode

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)
2022 Overnight	-28.30*** (1.83)	-27.01*** (1.83)	-24.92*** (1.83)	-24.51*** (1.84)	-24.53*** (1.86)	-24.44*** (1.86)
2022 24/7	29.16*** (2.60)	29.67*** (2.59)	30.33*** (2.58)	30.70*** (2.60)	32.57*** (2.65)	32.49*** (2.65)
Entry Month		-0.23 (0.23)	-0.23 (0.23)	-0.24 (0.23)	-0.23 (0.23)	-0.23 (0.23)
Age at Entry		0.71*** (0.07)	0.69*** (0.07)	0.70*** (0.07)	0.68*** (0.07)	0.72*** (0.07)
<i><u>MN Homeless Category</u></i>						
Long Term			13.37*** (1.99)	13.26*** (1.99)	13.80*** (2.00)	13.24*** (2.06)
Not Homeless			-0.03 (5.01)	0.04 (5.00)	0.29 (5.00)	0.86 (5.01)
Multiple Episodes			19.05*** (2.50)	18.90*** (2.50)	19.22*** (2.50)	18.98*** (2.51)
Unknown			-6.29 (6.70)	-5.49 (6.71)	-4.52 (6.71)	-5.72 (7.48)
<i><u>Prior Residence</u></i>						
Institutional			-8.21** (3.39)	-8.32** (3.39)	-8.28** (3.40)	-8.30** (3.40)
Permanent/Transitional			9.99*** (2.08)	10.09*** (2.08)	10.17*** (2.08)	10.25*** (2.09)
Unknown/Other			3.80 (6.59)	3.86 (6.59)	3.64 (6.62)	3.61 (6.96)
<i><u>Gender</u></i>						
Female				-2.37 (1.87)	-1.58 (1.89)	-2.67 (1.91)
Transgender/Other				8.02 (8.63)	7.77 (8.63)	7.62 (8.63)
Unknown				-13.86*** (5.22)	-13.04** (5.27)	-12.83** (5.34)
<i><u>Race (HUD)</u></i>						
AI/AN					-12.34*** (3.09)	-12.34*** (3.09)
Asian					11.43* (6.87)	10.85 (6.87)
Black					-0.15 (1.90)	-0.71 (1.90)
NH/PI					10.51 (9.21)	10.37 (9.21)
Multiple					-1.56 (3.72)	-2.12 (3.72)
Unknown					-4.35 (5.71)	-4.54 (5.74)

<u>Ethnicity</u>						
Hispanic					3.85	3.43
					(3.10)	(3.10)
Unknown					-0.37	0.22
					(5.27)	(5.39)
<u>Disability Status (HUD)</u>						
Disabled						1.43
						(1.95)
Unknown						2.14
						(5.96)
<u>Veteran Status</u>						
Veteran						-15.11***
						(3.54)
Unknown						-3.66
						(5.78)
Constant	45.59***	15.38***	4.52	4.94	5.62	4.60
	(1.08)	(3.53)	(3.92)	(3.96)	(4.24)	(4.27)
Observations	14,408	14,408	14,408	14,408	14,408	14,408
R-squared	0.032	0.040	0.048	0.049	0.051	0.052

**Regression Table 2:** Multiple OLS regression models of the length of homeless shelter episodes (in days) on the predominant shelter model accessed by the client during the episode and several covariates. Data aggregated from 2019, 2021 and 2022 HMIS Core Report Entry/Exit data for two one-year periods of interest: Jan 1-Dec 31, 2019 and Sep 1, 2021-Aug 31, 2022. For predominant shelter model, the omitted class is 2019 Overnight shelters. Entry month refers to the ordinal month in which the episode began during the period, with 1 representing Jan, 2019 and Sep, 2022 for the two periods, respectively. Age at entry is the client age in years upon first entering shelter for the observed episode. Remaining covariate indicator variables are based on MN/HUD definitions for degree of homelessness, residence immediately prior to entry, gender, race, ethnicity, disability and veteran status. Omitted cases for those covariates are “First time homeless,” “Homeless,” “Male,” “White,” “Non-Hispanic,” “Not Disabled,” and “Not a Veteran,” respectively. Standard errors shown in parentheses. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

## Appendix D: Logistic Regression Table - Models for Exits to Permanent Housing

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)
2022 Overnight	-1.283*** (0.254)	-1.255*** (0.254)	-1.223*** (0.255)	-1.201*** (0.255)	-1.179*** (0.256)	-1.145*** (0.257)
2022 24/7	1.849*** (0.127)	1.871*** (0.127)	1.886*** (0.128)	1.907*** (0.130)	1.804*** (0.134)	1.778*** (0.135)
Entry Month		-0.040** (0.017)	-0.037** (0.018)	-0.037** (0.018)	-0.036** (0.018)	-0.035** (0.018)
Age at Entry		0.009* (0.005)	0.010* (0.005)	0.009* (0.005)	0.013** (0.005)	0.009* (0.005)
<i>MN Homeless Category</i>						
Long Term			0.316** (0.149)	0.311** (0.148)	0.266* (0.150)	0.218 (0.155)
Not Homeless			0.364 (0.364)	0.362 (0.364)	0.315 (0.366)	0.266 (0.366)
Multiple Episodes			0.146 (0.188)	0.138 (0.188)	0.110 (0.189)	0.076 (0.190)
Unknown			0.783* (0.455)	0.814* (0.459)	0.681 (0.460)	0.653 (0.494)
<i>Prior Residence</i>						
Institutional			-0.456 (0.318)	-0.459 (0.318)	-0.426 (0.319)	-0.432 (0.320)
Permanent/Transitional			0.003 (0.153)	0.008 (0.153)	0.026 (0.154)	0.0287 (0.155)
Unknown/Other			-0.699 (0.468)	-0.723 (0.471)	-0.641 (0.472)	-0.664 (0.515)
<i>Gender</i>						
Female				-0.116 (0.135)	-0.144 (0.137)	-0.110 (0.140)
Transgender/Other				-0.982 (1.015)	-1.003 (1.017)	-1.089 (1.020)
Unknown				-0.983 (0.720)	-0.956 (0.722)	-0.920 (0.723)
<i>Race (HUD)</i>						
AI/AN					0.560*** (0.181)	0.576*** (0.183)
Asian					0.625 (0.442)	0.603 (0.446)
Black					-0.011 (0.157)	0.022 (0.157)
NH/PI					-0.589 (1.020)	-0.599 (1.021)
Multiple					0.281 (0.266)	0.292 (0.266)
Unknown					0.0896 (0.509)	0.081 (0.512)

<i>Ethnicity</i>						
Hispanic					0.333*	0.359*
					(0.196)	(0.197)
Unknown					-0.302	-0.278
					(0.459)	(0.469)
<i>Disability Status (HUD)</i>						
Disabled						0.148
						(0.151)
Unknown						0.099
						(0.410)
<i>Veteran Status</i>						
Veteran						0.527**
						(0.232)
Unknown						0.177
						(0.427)
Shelter Nights						0.001**
						(0.0005)
Constant	-4.228***	-4.414***	-4.643***	-4.582***	-4.817***	-4.861***
	(0.093)	(0.265)	(0.301)	(0.304)	(0.332)	(0.336)
Observations	14,408	14,408	14,408	14,408	14,408	14,408
Pseudo R-squared	0.111	0.114	0.118	0.119	0.126	0.129

**Regression Table 3:** Logistic regression of an indicator variable for a spell ending in an exit to permanent housing on predominant shelter model accessed by the client during the spell and several covariates. For predominant shelter model, the omitted class is 2019 Overnight shelters. Entry Month refers to the ordinal month of the period in which the spell began, with 1 representing Jan, 2019 and Sep, 2022 for the two periods, respectively. Age at Entry is the client age in years upon first entering shelter for the observed spell. Shelter Nights refers to the number of nights the client spent in a single-adult emergency shelter during the spell. Remaining covariate indicator variables are based on MN/HUD definitions for degree of homelessness, residence immediately prior to entry, gender, race, ethnicity, disability and veteran status. Omitted cases for those covariates are “First time homeless,” “Homeless,” “Male,” “White,” “Non-Hispanic,” “Not Disabled,” and “Not a Veteran,” respectively. Standard errors shown in parentheses. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

## Appendix E: Regression Models - Three Primary Outcomes Regressed on Time Period

	(A) Spells per Client	(B) Shelter Nights per Spell	(C) Exit to Permanent Housing (Logistic)
2022	-0.128*** (0.022)	-8.51*** (1.71)	0.716*** (0.127)
Entry Month	-0.081*** (0.003)	-0.21 (0.24)	-0.034* (0.018)
Age at Entry	-0.0002 (0.0009)	0.78*** (0.07)	0.011** (0.005)
<i><u>MN Homeless Category</u></i>			
Long Term	0.268*** (0.027)	13.09*** (2.09)	0.206 (0.157)
Not Homeless	0.088 (0.061)	-1.17 (5.08)	0.151 (0.360)
Multiple Episodes	0.138*** (0.031)	19.24*** (2.54)	0.093 (0.189)
Unknown	0.176* (0.094)	-5.37 (7.58)	0.801 (0.517)
<i><u>Prior Residence</u></i>			
Institutional	-0.149*** (0.044)	-9.08*** (3.44)	-0.458 (0.316)
Permanent/Transitional	-0.087*** (0.027)	11.05*** (2.12)	0.081 (0.153)
Unknown/Other	-0.209** (0.086)	1.18 (7.06)	-0.937* (0.543)
<i><u>Gender</u></i>			
Female	0.088*** (0.025)	0.99 (1.93)	0.090 (0.136)
Transgender/Other	0.179 (0.119)	9.18 (8.75)	-0.990 (1.014)
Unknown	-0.067 (0.064)	-17.71*** (5.41)	-1.275* (0.720)
<i><u>Race (HUD)</u></i>			
AI/AN	-0.076* (0.039)	-2.08 (3.09)	1.070*** (0.175)
Asian	0.061 (0.089)	11.93* (6.97)	0.639 (0.435)
Black	0.064** (0.025)	0.13 (1.93)	0.065 (0.155)
NH/PI	0.004 (0.120)	9.78 (9.34)	-0.705 (1.017)
Multiple	0.030 (0.050)	0.56 (3.77)	0.433* (0.262)
Unknown	0.054 (0.069)	-7.56 (5.82)	-0.124 (0.500)



<u><i>Ethnicity</i></u>			
Hispanic	0.093** (0.042)	5.46* (3.14)	0.468** (0.191)
Unknown	-0.003 (0.064)	-1.05 (5.47)	-0.326 (0.461)
<u><i>Disability Status (HUD)</i></u>			
Disabled	0.148*** (0.026)	2.13 (1.98)	0.203 (0.152)
Unknown	-0.097 (0.073)	2.86 (6.04)	0.178 (0.441)
<u><i>Veteran Status</i></u>			
Veteran	-0.107** (0.045)	-15.96*** (3.59)	0.462** (0.227)
Unknown	0.009 (0.066)	-2.23 (5.86)	0.358 (0.412)
Shelter Nights			0.002*** (0.0004)
Constant	1.818*** (0.055)	-0.85 (4.32)	-5.223*** (0.335)
Observations	9,544	14,408	14,408
R-squared	0.124	0.025	0.052

**Regression Table 4:** Three regression models, one for each primary outcome, on the period in which an observation occurred and several covariates. Data collected from 2019, 2021 and 2022 HMIS Core Reports for two one-year periods of interest: Jan 1-Dec 31, 2019 and Sep 1, 2021-Aug 31, 2022. For brevity, the second period is simply named 2022 in the table, with 2019 serving as the omitted value for comparison. Entry month refers to the ordinal month in which the episode began during the period, with 1 representing Jan, 2019 and Sep, 2022 for the two periods, respectively. Age at entry is the client age in years upon first entering shelter for the observed episode. Shelter Nights, as a covariate for Model (C), refers to the number of nights a client spent in a single adult emergency shelter during the observed spell. Remaining covariate indicator variables are based on MN/HUD definitions for degree of homelessness, residence immediately prior to entry, gender, race, ethnicity, disability and veteran status. Omitted cases for those covariates are “First time homeless,” “Homeless,” “Male,” “White,” “Non-Hispanic,” “Not Disabled,” and “Not a Veteran,” respectively. Standard errors shown in parentheses. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

## Appendix F: Regression Models - Alternative Spell Construction Method

	(A) Spells per Client	(B) Shelter Nights per Spell	(C) Exit to Permanent Housing (Logistic)
2022 Overnight	-0.078*** (0.012)	-45.50*** (3.74)	-1.099*** (0.324)
2022 24/7 Shelter	-0.113*** (0.014)	7.90* (4.53)	1.860*** (0.149)
Entry Month	-0.014*** (0.001)	-0.72* (0.42)	-0.078*** (0.020)
Age at Entry	0.0005 (0.0004)	1.37*** (0.13)	0.014** (0.006)
<i><u>MN Homeless Category</u></i>			
Long Term	0.050*** (0.011)	42.25*** (3.60)	0.191 (0.163)
Not Homeless	0.039 (0.025)	7.67 (8.09)	0.145 (0.355)
Multiple Episodes	0.002 (0.013)	34.94** (4.18)	0.006 (0.195)
Unknown	0.137*** (0.039)	-11.94 (12.08)	0.701 (0.475)
<i><u>Prior Residence</u></i>			
Institutional	-0.022 (0.019)	-12.34** (5.92)	-0.528 (0.339)
Permanent/Transitional	-0.007 (0.012)	11.99*** (3.68)	0.062 (0.163)
Unknown/Other	-0.090** (0.036)	5.86 (11.32)	-0.405 (0.502)
<i><u>Gender</u></i>			
Female	0.222*** (0.011)	-18.94*** (3.31)	-0.298** (0.151)
Transgender/Other	0.115** (0.052)	9.59 (16.26)	-1.089 (1.034)
Unknown	0.034 (0.026)	-24.44*** (8.57)	-1.075 (0.726)
<i><u>Race (HUD)</u></i>			
AI/AN	0.009 (0.0174)	-12.55** (5.47)	0.566*** (0.201)
Asian	-0.002 (0.038)	19.47 (12.06)	0.746 (0.455)
Black	0.016 (0.011)	5.72* (3.43)	0.076 (0.173)
NH/PI	-0.065 (0.051)	16.09 (16.56)	-0.516 (1.029)
Multiple	0.011 (0.022)	1.49 (6.79)	0.410 (0.294)
Unknown	0.034 (0.029)	-4.28 (9.38)	-0.105 (0.563)

<u>Ethnicity</u>			
Hispanic	0.017 (0.018)	16.51*** (5.71)	0.368* (0.221)
Unknown	-0.003 (0.026)	2.92 (8.56)	-0.546 (0.504)
<u>Disability Status (HUD)</u>			
Disabled	0.012 (0.011)	9.84*** (3.53)	0.088 (0.161)
Unknown	-0.061** (0.030)	6.76 (9.50)	-0.405 (0.415)
<u>Veteran Status</u>			
Veteran	-0.020 (0.019)	-35.88*** (6.26)	0.255 (0.265)
Unknown	0.013 (0.027)	-3.06 (8.82)	0.0805 (0.427)
Shelter Nights			-0.0007 (0.0006)
Constant	1.072*** (0.024)	-1.56 (7.56)	-4.326*** (0.357)
Observations	8,036	8,605	8,605
R-squared	0.082	0.090	0.136

**Regression Table 5:** Alternative regression models, one for each primary outcome, on primary shelter model accessed and several covariates. These models treat spells separated by exits to unknown destinations as the same episode – by comparison, Regression Tables 1-4 all treat such spells as distinct episodes. Data collected from 2019, 2021 and 2022 HMIS Core Reports for two one-year periods of interest: Jan 1-Dec 31, 2019 and Sep 1, 2021-Aug 31, 2022. For brevity, the second period is simply named 2022 in the table, with 2019 Overnight serving as the omitted value for comparison. Entry month refers to the ordinal month in which the episode began during the period, with 1 representing Jan, 2019 and Sep, 2022 for the two periods, respectively. Age at entry is the client age in years upon first entering shelter for the observed episode. Shelter Nights, as a covariate for Model (C), refers to the number of nights a client spent in a single adult emergency shelter during the observed spell. Remaining covariate indicator variables are based on MN/HUD definitions for degree of homelessness, residence immediately prior to entry, gender, race, ethnicity, disability and veteran status. Omitted cases for those covariates are “First time homeless,” “Homeless,” “Male,” “White,” “Non-Hispanic,” “Not Disabled,” and “Not a Veteran,” respectively. Standard errors shown in parentheses. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

## Appendix G: Qualitative Interview Questions

1. Is it okay to record this interview for reference as we write about our findings?
2. How long have you been working at this shelter? Have you held similar past positions in Hennepin County?
3. Tell me about daily operations at your organization. How have they changed since the advent of COVID-19? Can you provide a timeline of these changes? (prompt by offering dates/significant times, e.g. in the first couple months of the pandemic, etc.)
4. Tell me about your job and responsibilities.
  - a. How did your responsibilities shift during the early pandemic?
  - b. How do your current responsibilities compare to those before the pandemic?
5. What would you like Hennepin County to know about the current shelter system?
  - a. In your opinion, what has worked well? What hasn't?
  - b. What should Hennepin County continue to fund/focus on moving forward?
  - c. What can be de-emphasized?
6. In your opinion, is [*the shelter/Hennepin County Housing Stability*] meeting its goals?
  - a. Would you suggest any changes that would help \_\_\_\_ achieve its goals?
  - b. If you were to recommend ongoing changes to shelter directors/Hennepin County, what would be the most important things to change? What are the most important programming aspects to keep?
7. As part of our project, we are examining the decision of some shelters to shift to 24/7 programming in response to the pandemic.
  - a. *If the shelter has not shifted to 24/7 programming*
    - i. Can you discuss why [*shelter*] did not make the shift? How is your current model working?
    - ii. Did you notice any changes in [*shelter*] when other locations shifted to 24/7 programming? (for instance, did the size or makeup of your shelter population change?)
  - b. *If the shelter has shifted to 24/7 programming*
    - i. Can you describe the shift to the 24/7 model?
    - ii. What was your role in implementing the 24/7 model?
    - iii. Have you noticed any changes that occurred along with the shift to 24/7 programming? (for example, changes in the frequency of shelter usage, the

- demographics of shelter population, the type of work done by shelter staff, or in other measurable outcomes)
- iv. How is the 24/7 model working? (prompt specifics related to outcomes, e.g. more or quicker housing placements)
  - v. Is it possible that you'll revert to the programming schedule you had before (not 24/7)?
- c. *If the shelter had 24/7 programming prior to COVID-19*
    - i. Did you notice any changes in [*shelter*] when other locations shifted to 24/7 programming? (for instance, did the size or makeup of your shelter population change?)
    - ii. How has the 24/7 model worked for your shelter?
  - d. *If interviewee does not work at a shelter*
    - i. What changes did you notice that accompanied the shifts to 24/7 shelter programming?
    - ii. How did your job change?
  - e. There are several shelters that have moved away from the 24/7 model, what impact do you believe these changes will have on your work? (Mark suggestion: ask what they hear from clients about 24/7 or lack thereof)
8. Other than shelter hours of operation, what are some additional barriers that prevent unsheltered folks from accessing shelter?
    - a. How, if at all, were those barriers addressed with the influx of COVID-19 funds?
    - b. Which barriers, if any, remain unaddressed?
    - c. Have new barriers emerged as a result of changes to shelters?
    - d. Transportation - logistics or cost?
    - e. Access to phones - cost?
    - f. Mental health support that people are voluntarily interested in doing - what would that look like?
  9. What is your experience with other homelessness interventions in Hennepin County, such as transitional housing, early intervention, or diversion?
    - a. IF NONE, or unsure: \*go to question 11\*
    - b. IF HAS EXPERIENCE
      - i. How do these interventions work alongside emergency shelters, in your experience?

- ii. How do these interventions overlap with emergency shelters, in your experience? (points of friction)
- iii. IF APPROPRIATE: How do you determine which intervention is appropriate for each individual client?

10. Is there anything that I have not touched on, that you see as relevant to our research?

11. Do you have any recommendations for other individuals we could interview?