Evaluation of the Penn Place Permanent Supportive Housing Program

Summative Report

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Executive Summary

Penn Place is a 38-unit permanent supportive housing program in Indianapolis, Indiana that serves chronically homeless individuals with high medical vulnerability. Penn Place operates using a Housing First approach that emphasizes consumer choice in services. Researchers in the Richard M. Fairbanks School of Public Health conducted a year-long, mixed methods evaluation (e.g., an evaluation using both qualitative and quantitative data) to understand the impact of Penn Place services on residents' lives. Data were collected at baseline, 6, and 12 months.

Results demonstrate the program was able to attain and maintain high fidelity to Housing First practice. Quantitative results from structured resident interviews demonstrate some significant improvements related to resident social integration and relationships, and income. However, emotional symptoms and substance use severity did increase significantly over time. Residents also expressed high satisfaction with various aspects of programming that did not change much during the year. Analysis of publicly available criminal justice data demonstrated a significant decrease in incarceration, which likely provided a savings to the criminal justice system.

Themes from qualitative interviews suggest improvements in health that were not noticed by quantitative measures including improved treatment compliance and better management of health problems. Significant improvements in resident relationships with family and Penn Place staff were also described, while several abusive relationships were demonstrated to have ended, a likely result of the stability residents had gained in their lives.

Further demonstrating the importance of staff relationships, residents often referred to supportive service staff and the quality of their housing as the best things about Penn Place. Despite this, they also offered several critiques of the program including issues with cleanliness and maintenance of the building, security regarding building visitors, strict program rules, perceived coddling of some individuals by service staff, and problems with property management.

Recommendations based on these and other findings discussed in this report include:

1. Train all new staff on Housing First and harm reduction.
2. Use multiple opportunities and modalities to educate residents in Housing First and harm reduction.
3. Provide opportunities to discuss and address problematic substance use within a harm reduction framework.
4. Investigate reasons for SNAP ineligibility among some residents.
5. Share evaluation findings with residents.
6. Revisit homeless/eviction prevention policies.
7. Provide opportunities for residents-community member engagement.
8. Ensure staff training in trauma-informed care.
9. Access and utilize publicly available resources for Housing First practice and implementation.
10. Increase building security through the addition of an overnight staff position.
11. Evaluate all program critiques outlined in the report and develop a plan to address them.

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Finally, we would like to thank the Penn Place residents who participated in the evaluation activities and the staff members who assisted us in contacting residents to arrange interviews, as well as acknowledge the multiple organizations supporting the implementation of Penn Place not previously mentioned, which include: Midtown Community Health, BWI Development Group, Horizon House, Indianapolis Housing Agency, and Nina Mason Pulliam Charitable Trust.

INTRODUCTION

Eskenazi Health Midtown Community Mental Health, in partnership with the Indianapolis Housing Agency, Horizon House day shelter, and BWI development group, opened a new 38-unit apartment complex to residents on January 1, 2016 in downtown Indianapolis, Indiana. Named "Penn Place" for its location on Pennsylvania Avenue, the complex was developed to serve medically vulnerable individuals experiencing significant, chronic barriers to housing stability in Marion County.

Penn Place follows a Housing First approach, an evidence-based model for which placement is not contingent on housing readiness as determined by such factors as abstinence from alcohol and drugs, engagement in mental health treatment, and employment [1]. Housing First also does not require service activity engagement of its residents other than housing case management. Penn Place is the first housing program in Indianapolis to operate using a strong Housing First approach. This is because it is the first permanent housing program to use the label "Housing First" that has truly embraced a harm reduction service approach. Harm reduction informed services work with residents to limit the negative consequences of high-risk behaviors, such as substance use, rather than requiring the elimination of these behaviors as a condition of service provision [2, 3]. To ensure implementation of a strong Housing First approach, Penn Place received training and technical assistance from CSH (formerly the Corporation for Supportive Housing) and the Midwest Harm Reduction Institute (MHRI).[1]

[1] The training and technical assistance program provided by MHRI was developed in partnership with the Fairbanks School of Public Health and provided at no charge through Penn Place's participation in a study supported by the National Institute on Drug Abuse (NIDA) [4].

In addition to following a Housing First approach, integrated on-site services are available to residents including supportive behavioral health services staffed by Midtown and primary care services one to two days a week provided through Pedigo Clinic. Additionally, Penn Place is unique in its use of a "warm-handoff" approach where a member of Horizon House's Street Outreach Rapid Response Team (SORRT), who residents were familiar with prior to being housed, is based within the housing complex. The decision to use the warm-handoff approach is due to the significant time it takes to build trusting relationships with people who have experienced chronic homelessness [5, 6]. Therefore, the goal of providing a "familiar face" is to ease the adjustment to domiciled living, which can be difficult for individuals who have been living on the streets for many years [7].

Other than the SORRT position, other full-time Penn Place staff include two full-time case managers from Midtown, a housing authority property manager and receptionist, and custodial/maintenance staff. Staff are generally scheduled to work in the building between the hours of 8am and 8:30pm on weekdays and 1:30pm and 10pm on weekends, and there is no overnight coverage. Additional part-time behavioral health staff work in the facility on a part-time basis to assure coverage of Midtown office.

Researchers from the Department of Social and Behavioral Sciences in the Indiana University Richard M. Fairbanks School of Public Health conducted an evaluation of the first year of Penn Place operations with funding provided by the Coalition for Homeless Intervention and Prevention and the United Way of Central Indiana. This report details these evaluation findings.

Evaluation Approach

We employed a single group, simultaneous mixed method design (i.e., the collection of both qualitative and quantitative data within a single group of individuals) [8].

Program-Level Data Collection and Analysis

We collected data to track fidelity of implementation (i.e., the extent to which Housing First was being practiced with faithfulness to the Housing First model) through telephone interviews. These interviews were conducted by MHRI staff, and they occurred in the first month of program operations (January 2016), then midway through (April 2014), the end of technical assistance (July 2016), and 3 months after (October 2016).

We compared scores at each fidelity interview, as well as differences in ratings related to each of the five sub-dimensions of the fidelity instrument [9]. We also compared notes and recommendations made by MHRI staff to better understand why scores changed over time.

Finally, we collected information through discussions and emails with Penn Place supportive service staff to understand any resident turnover during the year and the reasons why it occurred.

Resident-Level Data Collection and Analysis

We collected resident-level quantitative data through structured interviews using a computer-assisted, web-based data collection tool. Baseline interviews with newly placed Penn Place residents were conducted in January and February 2016, 6-month interviews in July and August 2016, and 12-month interviews in December 2016 and January 2017. All interviews were conducted in person.

Consistent with the Housing First philosophy that emphasizes choice by program residents, they were invited, rather than required, to complete any evaluation activities. A total of 32 residents completed baseline interviews, 18 completed 6-month interviews, and 16 completed 12-month.[2] We had difficulty recruiting residents to take the follow-up interview despite several attempts,[3] as well as a catered social gathering where we endeavored to make residents more familiar with our research team without actively recruiting. For the 32 individuals who participated in baseline interviews, we looked up publically available criminal justice data to measure rates of incarceration for the years 2014, 2015, and 2016.

At the 6- and 12-month follow-up, residents were also invited to participate in semi-structured, open-ended qualitative interviews to complement data obtained in the structured interviews. Major topics covered in the interview instrument included health, social integration and support, and program satisfaction and perceptions. All 18 residents who completed 6-month structured interviews also completed at least one qualitative interview. Residents were provided a $25 grocery store gift card for each interview (qualitative and quantitative) and entered into a drawing for a $100 gift card at each time point.

Due to the significant amount of missing quantitative data, we compared key demographics, mental health, physical health, and substance use data on residents interviewed at each wave prior to any analyses. We found no significant differences between clients interviewed at each time point. This improves confidence in the results since no identifiable factor was demonstrated to be associated with participant attrition at each interview point. We

[2] One participant completed a baseline interview 3 months after moving in and another participant completed a baseline interview 6 months after moving in.
[3] We were limited to a total of five contact attempts by the Indiana University Institutional Review Board.

conducted a longitudinal analysis of the quantitative structured interview data, which included all three data collection points. Generalized estimated equations with a logit link were applied to dichotomous variables and generalized linear mixed models were used for continuous variables. We used t-tests and Wilcoxon signed-rank tests to compare criminal justice and characteristics of residents' social support respectively. We used a conservative approach to determining statistical significance[4] in order to avoid false positives related to the large number of tests ran, as well as make our results less susceptible to potential problems with the missing data. We highlight instances when our results are nearing significance because it is possible a more substantial difference would have been observed using a less conservative approach or given more complete data.

For criminal justice data, we compared mean changes between years to understand the potential impact of housing on incarceration rates and costs.

For analysis of semi-structured qualitative interviews, we first developed categories based on the primary areas of inquiry as defied by the interview instrument and then conducted inductive analyses to develop themes within these broader categories.

FINDINGS

FIDELITY TO HOUSING FIRST

Figure 1 displays changes in fidelity score and domain ratings at each interview point. Programs can score anywhere from 29 to 145 on the Housing First Model Fidelity Index, which was the instrument used to score the program. Five dimensions make up the index:

[4] We used two-tailed tests despite having strong hypotheses regarding the expected direction of trends.

Dimension 1: Human resources structure and composition: Refers to composition and structure of the staffing

Dimension 2: Program boundaries: Limits placed on who the program will serve and the responsibilities of key staff

Dimension 3: Flexible policies: Policies and rules written to appropriately serve consumers with greatest need/vulnerability and to allow them maximum choice in their lives

Dimension 4: Nature of social services: The structure, policies, and practices related to social services offered

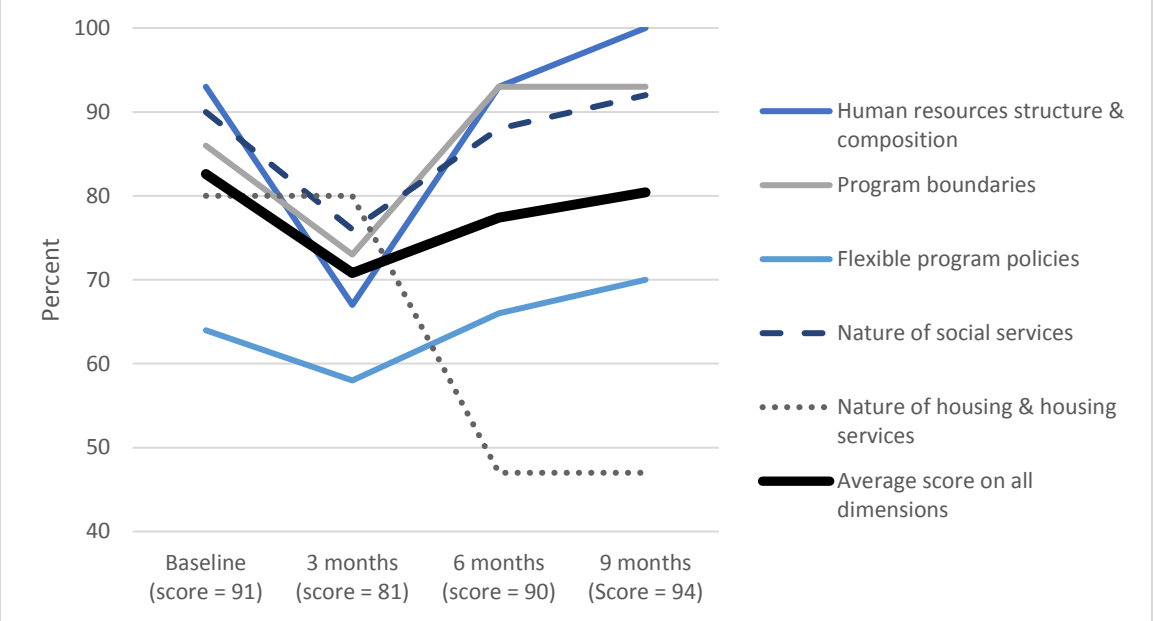
Dimension 5: Nature of housing and housing services: The structure of housing and housing services offered by the program and/or external property management

While five areas provide a useful guide as to where a program can improve practices, the total score received is a stronger indicator of program strength than the score of any single dimension.

As shown in Figure 1, the program received an initial fidelity score of 89, which dipped to 81 before improving to 90 and 94 in the final two interviews. The reason for the initial drop in score after baseline is because the staff member interviewed did not accurately represent program policies and procedures at baseline, which was reasonable considering the program was just getting off the ground and the policies and procedures were not completely solidified. Therefore, the 3-month score of 81 and subsequent improvements were a more valid representation of Penn Place's fidelity to the Housing First model than the initial interview. Also, related to Dimension 5, the significant drop in score from 3 months to 6 months is largely

due to the evictions that occurred between these time points. Further lowering this score was a more accurate understanding of the length of the housing entry process as the program matured. Despite this issues with Dimension 5, the program still managed to improve fidelity over time, and these fidelity improvements continued after the end of the MHRI's technical assistance activities.

Figure 1. Percent scored on each domain of the fidelity instrument and total score over time



While the overall fidelity scores at each time point may seem low considering the maximum possible score of 145, the instrument was based on an ideal of Housing First practice that would be extremely difficult to capture in the real world, and additional work needs to be carried out to standardize the scores. Based on previous work, strong Housing First programs typically score between 80 and 90 on the instrument [9]. As such, applying a curve based on observations of this previous work places Penn Place's final scores in the A+ grade range.

Resident Understandings of Housing First and Harm Reduction

One important aspect of Housing First fidelity is the degree to which the program educates consumers about the Housing First model and harm reduction practices [9, 10]. As such, in our qualitative interviews, we asked residents whether they had heard of the terms "Housing First" and "harm reduction" and to explain either or both to us if they had. Of all the residents interviewed, only six said they had heard of the term "Housing First" before the interview, and of these, only three could provide at least a basic description of what it means. The following is the most nuanced description of Housing First provided:

> It means they take you off the streets. They make sure your mental health is taken care of. They make sure your physical health is taken care of, but they want you to take care of your housing. You stay in…a program like this. That makes sure you have the housing before [they] worry about the drugs, before you worry about the alcohol. They are going to make sure you are housed, so it is Housing First. (Male, Age 50, 6-month interview)

Regarding harm reduction, eight residents stated they had heard the term before and seven provided a description of what it meant to them. However, all descriptions provided suggest the residents were just extrapolating the meaning from the word, rather than repeating a definition that had been explained to them at some point. Demonstrating this, typical answers included: "It means I need to be less harmful to myself" (Male, Age 61, 6-month interview) and it means "That you need to be safe when you are housed" (Female, Age 58, 12-month interview).

Program Retention

Housing retention is one of the primary goals of the Housing First model, and—in line with the philosophy of housing as a human right that Housing First ascribes to—residents in Housing First programming should not be held accountable to any rules those who live in

market-rate housing are not required to abide by. As such, residents should ideally not be evicted for any reason other than violence or threats of violence. Additionally, programs requiring residents to pay a portion of the housing subsidy may also consider evicting clients for excessive non-payment of rent since this is a consequence anyone living in market rate housing would end up facing for similar behavior.

Penn Place lost eight residents over the course of the year. Two of these residents passed away, which is not surprising considering the considerable health issues facing this population and the complications associated with such a long history of living on the street. One resident left the program after an accident that left him unable to live independently. The final five residents were evicted for reasons including threatening behaviors toward staff and other residents and excessive non-payment of rent, both of which are consistent with the Housing First model as describe above.

Background Characteristics of Residents

Resident demographics

Table 1 displays demographic characteristics of the Penn Place residents interviewed at baseline. The average age of residents was about 48 years (with youngest being 30 and the oldest 65), and they were majority male (78 percent), white (59 percent), and heterosexual (94 percent). Most residents had either never been married (57 percent) or were divorced (30 percent). Related to education, most (84 percent) had a high school education or higher, and a few (17 percent) had attained a post-secondary degree. Indicating most residents had significant tenures as Hoosiers, the average reported length of Indiana residence was 35 years, with the lowest reported residence being 11 years and the highest 63.

Table 1. Demographic characteristics of Penn Place residents interviewed at baseline			
	Mean (SD)		
Average age (n = 31)	48.3 (9.8)	**Marital status**	**(n = 30)**
Years Indiana resident (n = 31)	35.2 (14.8)	Never married	57%
Biological Sex	**(n = 32)**	Divorced and currently single	30%
Male	78%	Married	7%
Female	22%	Widowed and currently single	3%
Race	**(n = 32)**	Separated	3%
White	59%	**Education**	**(n = 30)**
Black	41%	Never went to school	3%
Hispanic/Latino	**(n = 32)**	Less than High school	13%
Yes	3%	Some high school (no diploma)	20%
No	97%	High school diploma/GED	27%
Sexual orientation	**(n = 32)**	Some college (no degree)	20%
Heterosexual	94%	Vocational/Technical degree	7%
Other	6%	Associates degree	7%
		Bachelor's degree	3%

Residents' homeless history and barriers to housing

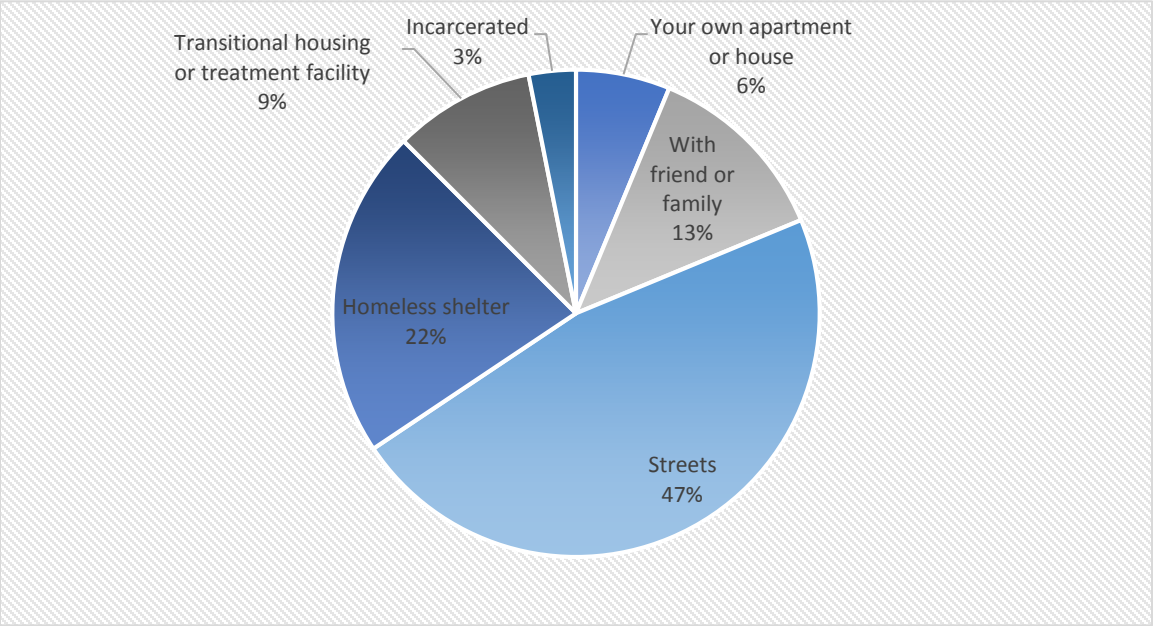
Table 2 displays information related to residents' histories with homelessness. The average age of first homelessness was 34, the average number of times residents had experienced homelessness was 3, and the average length of the longest period of homelessness experienced was 6 years.

Table 2. Residents' homeless history		
	Mean (SD)	
Age of first homelessness (n = 30)	34.3 (15.1)	4 - 59
Number of times homeless (n = 31)	3.1 (3.9)	1 - 20
Years of longest homeless period (n = 32)	6.1 (6.5)	0.05 - 25

The living locations of residents immediately prior to their coming to Penn Place are displayed in Figure 2. The majority of residents stated they were living on the streets (47 percent) or in a homeless shelter (22 percent). We do not know why 6 percent (n = 2) of individuals stated they were living in their own apartment or house considering Penn Place's

eligibility criteria. However, it is possible they had acquired some form of temporary housing between filling out paperwork for Penn Place or that they had misunderstood the question.

Figure 2. Living location immediately prior to Penn Place (n = 32)*



*Modified question from Sosin, George, & Grossman [11], "I would like to get an idea about where you were living prior to Penn Place. Immediately before moving to Penn Place, were you living in any of the following places?"

Table 3 displays different individual-level barriers to housing and financial stability. The majority of residents (55 percent) reported having a chronic medical condition and/or a psychiatric problem (63 percent). Additionally, half of the residents interviewed reported a diagnosed disability. Criminal justice involvement was high, with 90 percent of residents reporting a past arrest, 71 percent a past misdemeanor conviction, 61 percent a past felony conviction, 69 percent having spent time in prison or jail, and 13 percent currently being on probation or parole. Finally, baseline interviews indicated that a high number of residents (87 percent) had experienced at least one traumatic life event.

Table 3. Individual-level barriers to financial and housing stability			
Chronic medical condition	**(n = 30)**	**Criminal justice involvement[a]**	**(n = 31)**
Yes	55%	Ever arrested	90%
No	41%	Convicted misdemeanor	71%
Don't know/Unsure	4%	Convicted felony	61%
Diagnosed disability	**(n = 30)**	Ever in prison or jail	68%
Yes	50%	Probation or parole	13%
No	50%	**Experienced traumatic life event[b]**	**(n = 31)**
Psychiatric problem	**(n = 30)**	Yes	87%
Yes	63%	No	16%
No	37%		

[a]Categories are not mutually exclusive
[b]Select questions from Brief Trauma Questionnaire [12] ; Traumatic life events inquired about include life threatening illness, life in danger or in danger of serious injury, excessive physical punishment by caretaker, victim of an attack, coerced sexual intercourse, violent death of close family or friend, witnessing someone being seriously injured or killed.

Resident Health

Physical and behavioral health issues of Penn Place residents are represented in Table 4. The average number of symptoms consistent with physical health problems reported by residents was high and, while increasing slightly, did not change significantly over time. The average number of reported symptoms of emotional health problems was also high and increased over time. While this increase in emotional symptoms was small, it was approaching significance.

While not significant in regards to change over time, the average score related to substance use problem severity was high. Over the course of the year, reports of alcohol use increased significantly from 6.9 days to 12.4 days in the past 30 days. Despite this significant increase in days of alcohol use, the average number of drinks residents reported consuming in a day did not change significantly.

Table 4. Physical and behavioral health issues				
	Baseline (n = 32)	6-month (n = 18)	12-month (n = 16)	P-value
Physical symptoms[a]	27.4 (9.2)	27.6 (7.2)	28.0 (8.1)	0.29
Emotional symptoms[b]	19.8 (6.5)	21.5 (6.3)	21.7 (5.9)	**0.09**
Severity of substance use problems[c]	6.4 (7.0)	5.1 (6.2)	7.1 (6.7)	0.27
Past 30-day alcohol use[d]	6.9 (10.7)	4.1 (7.1)	12.4 (11.7)	**0.01**
Average number of drinks a day[d]	6.2 (5.8)	4.4 (3.7)	7.9 (8.2)	0.28

[a]Measured with symtrak [13]; lower scores mean less symptoms; possible scores range from 0-39
[b]Measured with symtrak [13]; lower scores mean less symptoms; possible scores range from 0-30
[c]Measured with Screening and Severity of Substance Use Problems questionnaire [14]; asks about previous 6 months
[d]Meausred using alcohol 30-day Quantity and Frequency questionnaire [15]

In qualitative interviews, we asked residents about their health before housing at Penn Place, as well as how their health changed after being housed.

Health prior to housing. In qualitative interviews, residents discussed a wide array of physical and behavioral health problems (e.g., diabetes, high blood pressure, asthma, chronic pain, bipolar disorder, depression, suicidal thoughts, and substance use disorder) that were pre-existing to their moving to Penn Place and how they often faced difficulties managing these problems while living on the streets. For instance, one resident discussed how he did not take insulin to manage his diabetes "because I was homeless. I didn't know when I was gonna eat, and I have to eat when I take it [or] otherwise, I die" (Male, Age 53, 12-month interview). Another resident discussed how irregular access to electricity was problematic for her health because "I sleep with a breather machine, and I needed my machine" (Female, Age 48, 6-month interview). In another example, a resident discussed how she did not start managing her bipolar disorder until she was housed at Penn Place because "I had to be aware and alert when I was on the street by myself. So, no, I didn't take any of my meds" (Female, Age 43, 12-month interview). Finally, one resident discussed how he used illegal drugs to manage physical health

issues he was experiencing and how quitting those drugs caused physical pains to return that led to significant mental health effects: “You know, after I stopped doing the drugs, I started feeling the pains that I was ignoring...I got depressed. I got suicidal. I started hearing voices. It just got bad” (Male, Age 50, 6-month interview).

When discussing how they accessed health services to manage their health problems prior to Penn Place, a number of residents stated they received care from either Pedigo or another health clinic for low income individuals. Residents also mentioned seeking care from Midtown for mental health care. However, residents also frequently discussed using the emergency department as a main source of care: “I wasn’t associated with any primary care or anything like that. I just, if I got sick enough or hurt enough, I just went to the emergency room” (Male, Age 36, 6-month interview).

Health after housing. When asked, residents largely stated that living in Penn Place had *improved their overall health*:

> …you know that I’m getting older, and I know my health has changed just since I’ve been here. I think it has helped a lot. Maybe I’d been a whole lot worse than where I am now [if he was not housed].” (Male, Age 48, 6-month interview)

Discussions of improved health tended to be more general with residents saying they were “feeling better” or discussing minor health issues like not “catch[ing] as many colds” (Male, Age 46, 12-month interview) or eating and sleeping better. One common theme related to health was how moving off the streets had *reduced residents’ worries, stress, and/or depression*:

> Well, you know it makes [it] easier to be healthy, because you don’t have to be worried about having a roof over your head and you could put your efforts into your health. (Male, Age 53, 6-month interview)

Another important benefit to their health residents spoke about was having *access to care*:

> I've got a primary care doctor now. I've got a lot of the dental work I needed done. I've got alcohol treatment and all that, I've just never had a stable place to stay long enough to get any of that done…I've put off having regular health care for years, partially because I didn't really care and partially because I never had the opportunity. (Male, Age 36, 6-month interview)

There were also discussions detailing how having a stable place to live allowed residents to *access needed care* and/or be *more compliant with their medical treatment*, such as the following resident who is able to regularly take necessary medication they had infrequent access when living on the street:

> Since I moved here, I have the medicine. Before, I didn't have health insurance, so I had to take handouts for meds. So, that's gotten easier, just being able to take my meds every day and don't miss a day. (Male, Age 53, 12-month interview)

Discussions of medication access as a benefit of housing was frequent.

Residents did not speak in detail about any direct improvements to chronic physical health problems; however, they did speak about direct impacts on their behavioral health. Regarding mental health, one resident discussed how being housed at Penn Place had improved her mental health enough that she was able to *monitor her own medication* without assistance needed at previous programs:

> My psychiatric health is definitely better…I'm clear headed enough that I can [take medication] myself, you know? I mean, like I've said, on those occasional bad days, I'll get a little messed up, but I take my medicines the way I'm supposed to. (Female, Age 51, 6-month interview)

One resident even discussed how housing at Penn Place had resulted in the *identification of a previously untreated mental health* issue:

> Interviewer: Whenever you started coming to Penn Place, were you already getting mental health treatment with Midtown?
> Resident: No…They set me up with everything. They really took care of me.

> Interviewer: Were you getting mental health treatment anywhere else?
> Resident: Nope. I didn't know I had mental [health] issues until then. You know, I just thought I was just depressed. No, I was a lot worse. You know, I had some issues. I've learned to accept them now…Sometimes I get depressed…But, I'm not like I was: "Oh, God, the world's gonna end!" (Male, Age 50, 12-month interview)

Further reinforcing this point, one resident discussed how he was able to begin taking *steps to address his substance use disorder* after coming to Penn Place:

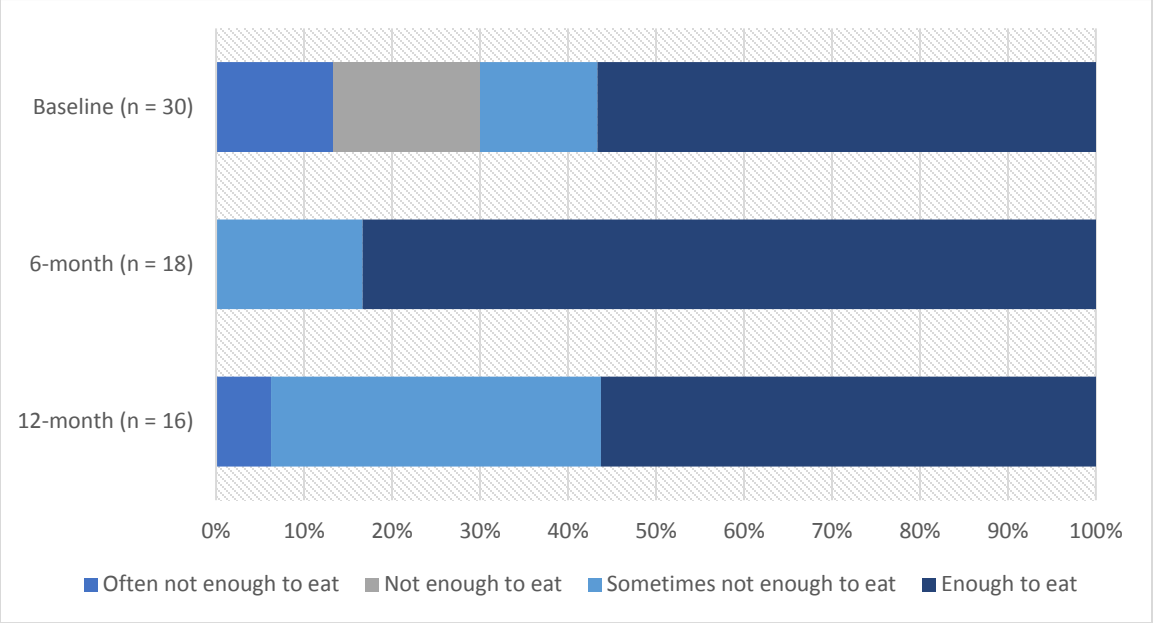
> I think I kind of took advantage of the freedom that I had [after moving in here] in a negative way. My first few months here, I was using a lot, I was drinking a lot, more alcohol than anything. And using prescription drugs prescribed to me…I think I just really abused the freedom for a while before I went into detox and started doing something about it…People here [staff] helped me get in [to detox], but I had gone to them and said that I felt like I needed to be detoxed. (Female, Age 48, 6-month interview)

While this resident's statement demonstrated that his behaviors related to substance use became more problematic upon entry to Penn Place, it was the stability associated with housing that allowed him to recognize the problem and the availability of staff who could assist in facilitating service access that helped him access needed treatment.

Food Access

Reported food access changed significantly over time (see Figure 3). However, while improving from baseline to 6 months, it reverted back almost to baseline levels at the 12-month interviews where over 40 percent of residents were reporting difficulties accessing food.

Figure 3. Food available to eat in home during past month*



*Measured using item from Sosin, George, & Gossman [11], "Which of the following describes the food available to eat in your home within the last month?"; p = 0.05

Discussions of food access in qualitative interviews was limited, with most residents stating they generally accessed food through a pantry or another type of program: "I go to the food pantry when I don't have any food" (Female, Age 48, 12-month interview). One resident discussed how lack of access to food stamps or having to prioritize paying bills over buying food was a problem for some residents:

> Some people can't get food stamps, me for instance. Then you got people that get disability, but they gotta pay their bills and everything. So, sometimes, that don't leave them much money to buy food. (Male, Age 53, 12-month interview)

In the following selection, another resident demonstrates how an increase in rent affected her ability to purchase food:

> My rent for December was $80, but this rent for January is $136. Well, I just wrote a check [to pay my rent], and I don't have no food money. (Female, Age 48, 12-month interview)

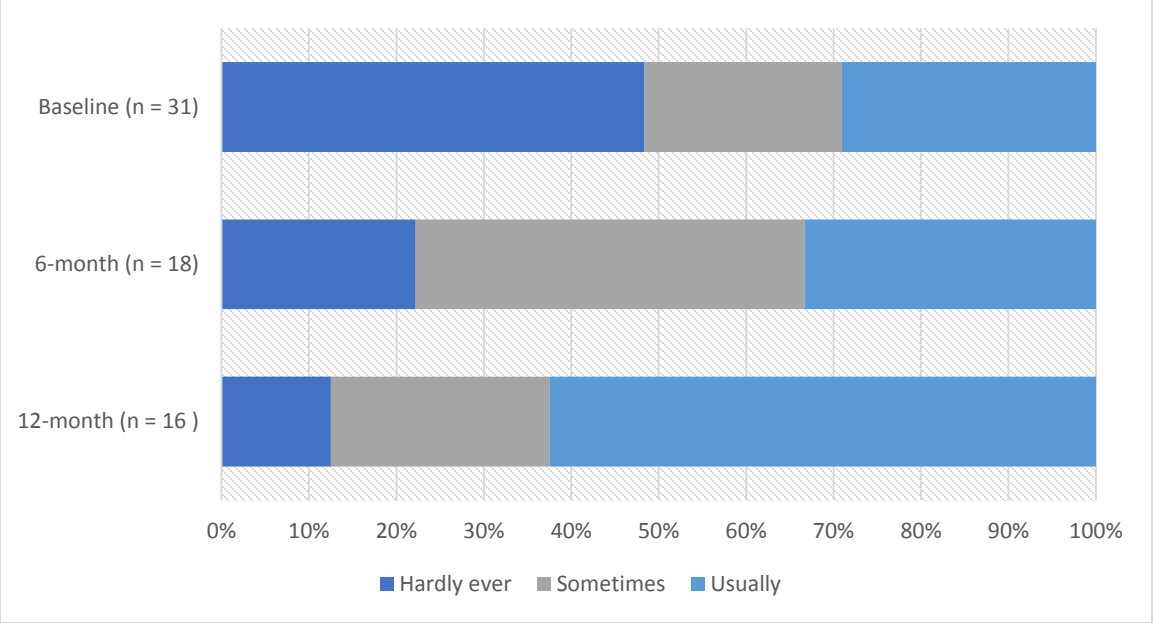
Despite the difficulties obtaining food discussed, residents also pointed out that Penn Place staff did help them to access food programs when needed. They also discussed how having refrigeration allowed them to store food longer. And, as discussed above, there were individuals who were able to take their medications as directed because of more regular access to food than they had on the street.

Social Integration and Support

We asked a number of different types of questions to assess residents' social integration (i.e., the degree to which they were connected to others in meaningful ways) and support over time. As demonstrated in Figure 4, residents were significantly more likely to report having someone to talk to when they are concerned about a personal matter at 12-month interviews. However, Figure 5 indicates residents were less likely to report having someone they could get together with to talk about common hobbies or interests at 12-month interviews, with this change approaching significance.

Table 5 details changes in the composition of residents' social networks over the first year of the program. Due to the nature of the data, we only included information for 13 people who completed both the baseline and 12-month interviews in this analysis. The average number of individuals in their social networks named by these 13 residents decreased by approximately 1 at the 12-month interview. Conversely, network density increased from baseline to follow-up, indicating that although network size shrank, the people residents discussed became more closely connected on average.

Figure 4. Has someone to talk to when concerned about a personal matter*

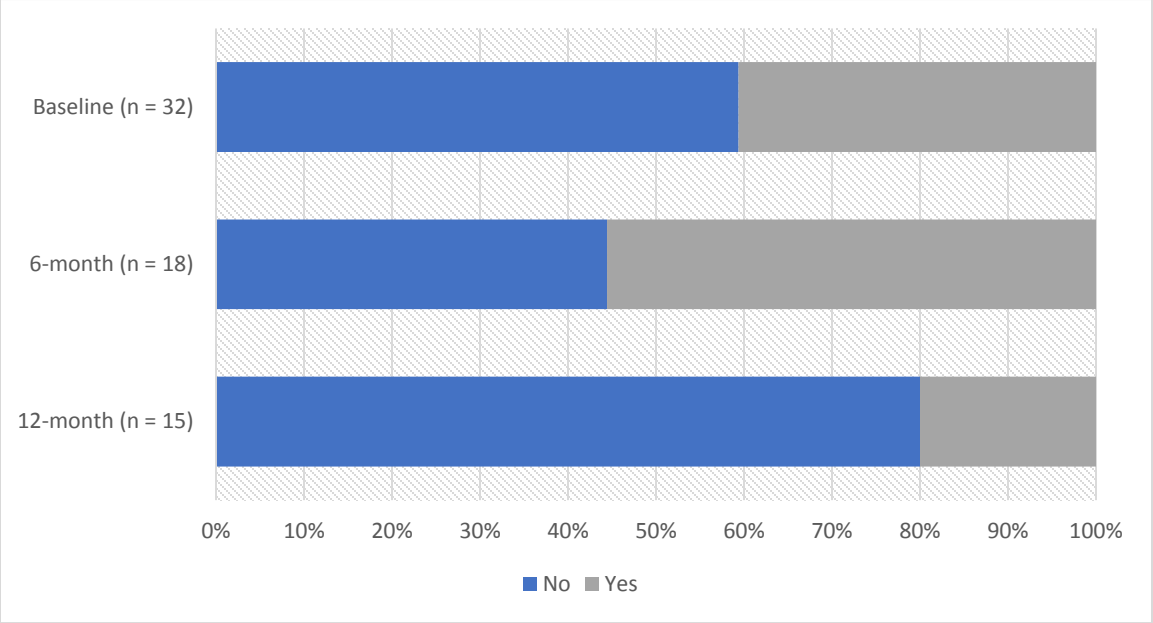


*Measured using item from Fischer [16], "When you are concerned about a personal matter—for example, about someone you are close to of something you are worried about—how often do you talk about it with someone?"; $p < 0.05$

Effective size refers to the number of individuals in the network to which the participant has non-redundant ties (i.e., ties to individuals in the network who are not connected to each other), while efficiency expresses this value as a proportion of the network. In both cases, the values from baseline to follow-up shrank, suggesting that participants had less access to novel sources of support and information at 12-months.

Residents' networks also were made up of a greater proportion of females at 12 months and less diverse in terms of the proportion of the network comprised of individuals of the same race as the participant. While the average level of closeness between the participant and his or her social network members remained constant from baseline to follow-up, the mean frequency of contact (i.e., how often the participant reported seeing or communicating electronically with network members) increased, and this change was statistically significant.

Figure 5. Gets together with people who have common interests*



*Measured using item from Fischer [16], "Sometimes people get together with others to talk about hobbies or spare-time interests they have in common. Do you ever do this?"; $p < 0.08$

Table 5. Characteristics of residents' personal social networks between baseline and 12 months (n = 13)

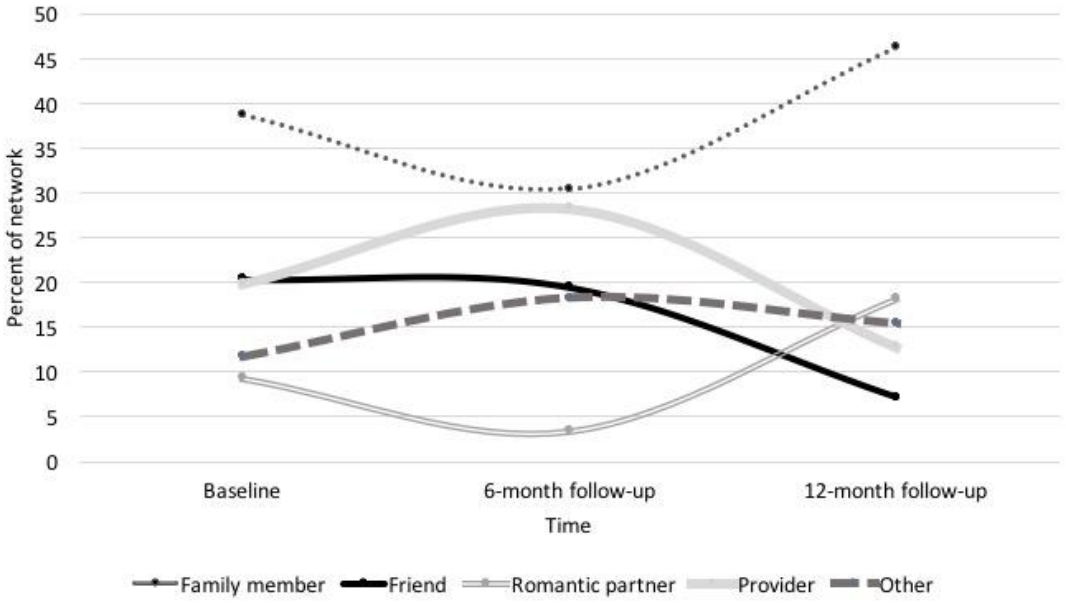
	Baseline			12 months			
Measure	Mean	SD	Range	Mean	SD	Range	Percent Change
Network size	3.38	1.98	1.0 - 8.0	2.38	1.19	1.0 - 5.0	-29.6
Network density[a]	0.65	0.29	0.1 - 1.0	0.79	0.29	0.0 - 1.0	+21.5
Effective size	1.72	0.71	0.1 - 3.3	1.37	0.78	1.0 - 3.0	-20.3
Efficiency	0.49	0.23	0.2 - 1.0	0.45	0.21	0.3 - 1.0	-8.2
Proportion female	0.58	0.36	0.0 - 1.0	0.68	0.34	0.0 - 1.0	+17.2
Proportion same race	0.93	0.21	0.3 - 1.0	0.98	0.58	0.8 - 1.0	+5.4
Mean closeness[b]	2.74	0.32	2.0 - 3.0	2.74	0.34	2.0 - 3.0	0.0
Mean contact[c]	2.48	0.49	1.7 - 3.0	2.80	0.24	2.3 - 3.0	+12.9*

[a] Controlling for network size, the proportion of alters in an ego's network who are connected to each other
[b] Ego closeness to alter was measured as "1=Not very close," "2=Sort of close," or "3=Very close"
[c] Ego frequency of contact with alter was measured as "1=Rarely," "2=Occasionally," "3=Frequently," or "4=Very frequently"
*$p < 0.05$

In Figure 6, changes over time in network composition by relationship type are presented. Each member of a resident's social network was classified by the participant as a

family member, friend, romantic partner, provider (including doctor or other medical personnel, counselor or mental health therapist, or social worker), or other (including neighbor, coworker, priest, minister, or rabbi, or a fellow church member). Individuals who were family members comprised the largest proportion of the average participant's social network across all time points. In addition, the percentage of network members that were family increased from 39 percent baseline to 46 percent at 12-month follow-up. Although romantic partners made up a smaller proportion of the average network than other types of roles, this proportion doubled from baseline (9 percent) to follow-up (18 percent). The proportion of providers, on the other hand, decreased from 20 percent at baseline to 13 percent at follow-up. Similarly, the proportion of friends in the average network decreased from 20 percent to 7 percent at follow-up.

Figure 6. Network composition over time by proportion of relationship type



*"Other" category includes alters identified as neighbors, coworkers, clergy, fellow church members.

Qualitative interviews provided a more nuanced understanding in the changes that occurred in residents' social networks than structured interviews did. In the rest of this section, we detail the sources of social support and changes in relationships residents discussed.

Types and sources of social support. While many residents said they just stay to themselves or that their relationships had not changed much since moving to Penn Place in their qualitative interviews, deeper discussion painted a different picture. Table 6 provides a brief overview of the types and sources of social support discussed by the 20 residents who participated in qualitative interviews. As shown, forms of (a) emotional and interactional support (i.e., a relationship an individual receives some form of empathy, compassion, or genuine caring from and/or someone the person spends time with) was mentioned by just about as many residents as (b) instrumental support (i.e., tangible aid or services), while (c) negative support (i.e., draining and/or abusive relationships) was mentioned by less. Relationships with friends, neighbors, and professionals/providers were mentioned by the same number of residents, followed in descending order by family, romantic partners, and church members.

Table 6. Frequency of residents discussing different types and sources of support in qualitative interviews (n = 20)*

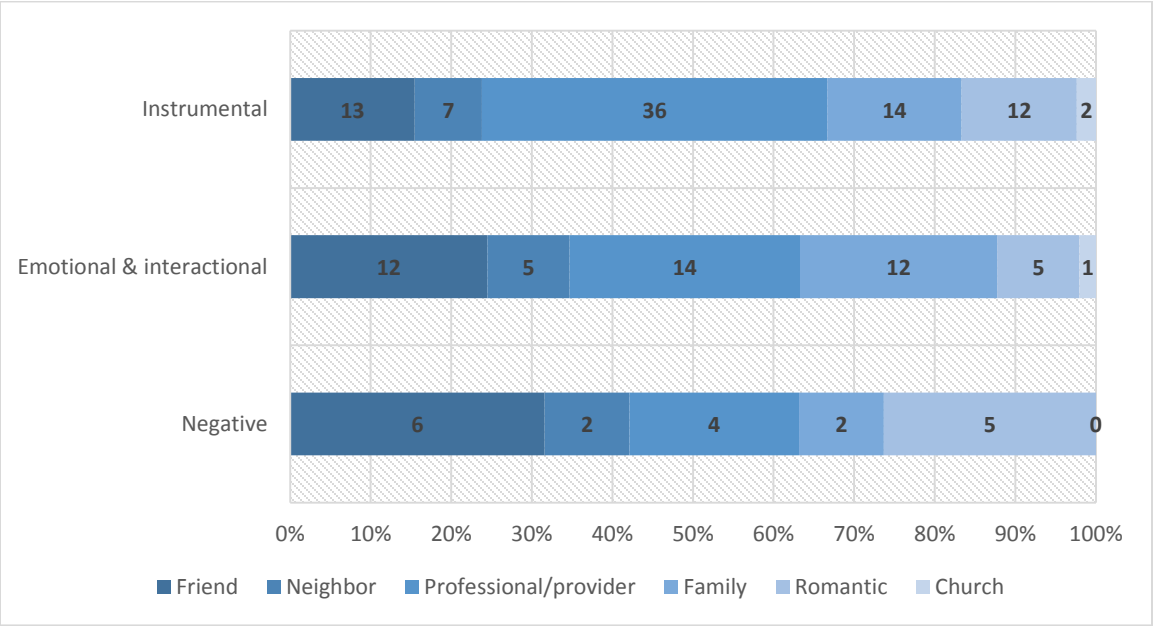
	Number of residents who discussed in either or both interviews
Support type	
Instrumental	12
Emotional & interactional	10
Negative	8
Support source	
Friends	20
Neighbors	20
Professional/Provider	20
Family	15
Romantic	12
Church	2

* Eight residents only participated in one interview.

Figure 7 shows the proportion of times each relationship source was mentioned by the type of social support r. Not surprisingly, instrumental support was primarily discussed in the context of relationships residents had with professionals/providers, with most of these individuals discussed being Penn Place staff. Residents stated professionals/providers assisted them in various ways such as accessing services, dealing with legal issues, obtaining hygiene items, filling out paperwork, applying for benefits, and helping them run small errands. Speaking about their mental health case manager in the community, one resident stated:

> She makes sure appointments are scheduled. She makes sure that I make my appointments, I got bus passes if I need it. If I need to reschedule, make sure I'm seeing the right doctor for this and the right doctor for that. Makes sure all of my medications are on time. If there is a problem with them, I let her know. She's hooked me up with different groups and things going on, different pantries when I didn't have my food stamps - they cut me off now. She's a life saver! (Male, Age 50, 6-month interview)

Figure 7. Proportion of mentions of each source of support by support type



Friends, professionals/providers, and family were almost equally represented in discussions of emotional and interactional support. Whereas friends were largely discussed as

people to spend time with, professionals/providers were spoken of as more of a form of emotional support by listening to their problems or showing concern. For instance, speaking about the Penn Place staff, one resident stated:

> When my back's out, I just stay in the apartment. They express their concern, and then, when they do see me they, "Man, I hope you're alright. I see you're feeling better, you're up and about," and stuff like that. There's the concern, and it's a truthful kind of thing. It's not like they're just doing it because it's their job; they really care. (Male, Age 48, 12-month interview)

Family members were discussed both as someone to spend time with and to provide emotional support:

> Because they [family] come over, we laugh and kick it and, you know, they go on about their way. It's good. It's pretty good. Feels good. They're real happy for me, real happy for me. (Female, Age 48, 12-month interview)

Friends and romantic partners were the most frequently discussed sources of negative support. Examples of negative support from friends included people who used drugs and alcohol excessively that a resident did not want to be around and people who took advantage of the relationship in some way such as stealing or constantly asking for money. Similar issues were discussed when speaking about negative support in romantic relationships; however, in one instance a resident discussed a relationship that was marked by jealously:

> I really didn't have no friends because I had an abusive girlfriend, and I wasn't allowed to have friends. She thought I was having sex with everybody I came in contact with." (Female, Age 29, 6-month interview)

Changes in residents' social support. Table 7 displays relationship changes at 6-months and 12-months for the 12 residents who participated in both interviews.[5] About an equal

[5] We limited this analysis to the 12 residents who completed both interviews to assess differences at each time point.

number of residents reported a change in at least one relationship at both time points. Reports of the addition or loss of a relationship were also about the same at each time point. Negative changes in the quality of relationships were reported less than positive changes, and reports in positive changes doubled at 12 months.

Table 7. Change in relationships for clients who engaged in both the 6- and 12-month interviews (n = 12)

	6-month interview	12-month interview
Reported at least one relationship change	10	11
Addition of at least one relationship	5	4
Loss of at least one relationship	3	4
Negative change in at least one relationship	1	3
Positive change in at least one relationship	4	8

The information in Table7 only provides an overview of some of the relationship changes that took place over the first year of Penn Place operations. Further unpacking these changes by looking at what residents actually said provides the context necessary for understanding the extent to which these changes were either detrimental or beneficial. We included data from all residents who participated in qualitative interviews (rather than restricting to the 12 reflected in Table 7) in our thematic analysis below.

When discussing making new friends, there was a sentiment that it was somewhat easier to do so since moving to Penn Place:

> New [friendships], yea. Before like I really kept people at a great distance for a long time…I probably got like two people that I feel really close to [since being housed]. (Female, Age 51, 6-month interview)

One resident discussed how they began a friendship with two colleagues at the job he had attained since moving to Penn Place:

> …a couple other guys that I work with, maybe when we get off work, maybe we'll go have a beer…Cool, laid back guys. They aren't negative. They most definitely aren't going to do nothing crazy or try to influence me to do something that's negative. (Male, Age 48, 12-month interview)

Discussion of relationship changes related to friends often overlapped with discussions of Penn Place neighbors because many of the friendships residents developed and lost were with others living in the building. Highlighting this, one resident stated she felt it was easier for her to develop friendships since moving to Penn Place because of the availability of her new neighbors:

> Now [since moving to Penn Place] I have relationships with people…it's hard to get to know somebody at a shelter. I mean, here, there are more people to pick from [at Penn Place]…More people I'd be likely to be friends with. (Female, Age 58, 12-month interview)

Another common theme was the development and subsequent backing away from friendships developed with neighbors in the building who engaged in behaviors to be avoided or because they were viewed as different in some way that made them undesirable to be around. Demonstrating this, one resident discussed how he stopped engaging with some of his neighbors he felt were a bad influence:

> You know, I think there's people [residents at Penn Place] that are kind of a burden and things...I've kind of gotten out of the circle of the people that are drinking constantly and everything. I still associate with them but I'm not like hanging out with them, getting drunk with them and stuff. [He associates]…with more positive people, and, you know, people I could trust more. You know, for a while I was letting about anybody in my apartment: they were stealing from me and stuff, and I kind of cut off people that I don't trust anymore…. (Female, Age 48, 6-month interview)

Despite the problems this resident has with others in the building, he stated they still interact, though he avoids some of the situations and behaviors (i.e., "drinking constantly and

everything") he would rather not be a part of. A different resident provided a similar account of getting along well with people while avoiding certain situations:

> I get along well with my neighbors. I mean, there are some things that I don't like that, like all the drinking of alcohol and stuff, because I don't drink, smoke or do drugs or anything anymore. So that part of it I don't really care for, but I'm pretty friendly with several neighbors. (Male, Age 53, 6-month interview)

The discontinuation of problematic friendships was not just limited to people living at Penn Place, as demonstrated by one resident's exchange with an interviewer detailing how he dissolved two friendships with people outside of the building:

> Interviewer: Those relationships, have they changed for the positive, or the negative?
> Resident: Two of them for the negative.
> Interviewer: Okay. Why is that?
> Resident: Because one of them came in here and stole something from me. The other one…He thinks I'm supposed to believe everything he says….And I told him, I don't believe everything that I hear. (Male, Age 63, 12-month interview)

Regarding romantic relationships, while there were a few discussions of these developing after a resident was housed (some of which formed between Penn Place residents), there were more examples of old relationships that ended. From the conversations, it was clear the relationships that had ended were pre-existing to the residents' housing at Penn Place: "I actually broke up with my girlfriend…I knew her before [moving here]" (Female, Age 29, 12-month interview).

In most of the cases of terminated relationships, they had ended because the resident viewed their partner as unstable, abusive, or influencing them negatively in some way, as in the case of two residents who stated they ended relationships with physically abusive girlfriends. Another resident discussed how he discontinued a troublesome relationship with his girlfriend

who “didn’t take care of her medication” and “acted like she didn’t have a medical problem” (Male, Age 50, 12-month interview). Finally, one resident who previously engaged in sex work “trading sex for drugs or sex for housing” (Female, Age 48, 6-month interview), including developing a relationship with a “sugar daddy boyfriend”, was able to discontinue her reliance on those types of relationships as a means of survival after she moved to Penn Place.

Discussions of relationships with family were largely positive, providing examples of residents reconnecting with family members and/or increasing their frequency or duration of contact with them. In the following example, a resident discusses how he and his wife, who were homeless together on the street and now live in the same apartment, reconnected with family after being housed:

> Yeah, we’re [the resident and his wife] in contact more with them [family] now. I’ve had my brother here visiting. He stayed the night once, and we’re able to do that now. So, yeah, it’s gotten better…There was really no relationship before here. When we were homeless, they [family] didn’t try to help. They just separated themselves from us. It was like, “out of sight, out of mind” kinda thing. And now that we’re here, it’s changed. (Male, Age 48, 12-month interview)

One resident attributed their reconnection with family to new levels of trust that were able to develop after they had been housed:

> Interviewer: …in terms of your life changing since last January, how have your relationships changed?
> Resident: They’re better.
> Interviewer: How would you say they are better?
> Resident: My family trust me now…[now that] my lifestyle has changed.
> Interviewer: Okay, could you describe that?
> Resident: What my lifestyle used to be? Well, I was a hustler, boosting [stealing], dong drugs, selling drugs, that type of stuff. (Male, Age 53, 12-month interview)

There was only one example where a change in a relationship with a family member was negative. In this instance, the resident described how they had become more distant from their

family, particularly their mother, due to what they attributed as "Jealousy [and] pissed offness" because their family members felt they had been given housing they did not work for and, thus, did not deserve, the result being "…we [the resident and their mother] don't talk anymore" (Female, Age 43, 12-month interview).

Discussions of professional/provider relationships were largely focused on Penn Place staff, and demonstrated residents felt their relationships with staff members had "gotten better" over time:

> Yeah, I get along really well with staff…[S]ome of them knew me before I came here, so they seen the change [in the resident's behavior]. You know, being more social and more trusting…We work together well. (Male, Age 48, 6-month interview)

Elsewhere in their interview, this resident discussed how he felt relationships between staff and residents in general had improved over time because "They [staff] know more about us now and how we act" (Male, Age 48, 6-month interview). A different resident attributed the strengthening of her relationship with staff to the work they were investing in helping her reconnect with her child:

> My relationships [with staff] have grown. I don't really know how to explain it. They're really working with me, try[ing] to get my mental health stable and keep me clean and sober so I can get visitation with my son. Not actually get custody with my son back but get visitation. (Female, Age 29, 6-month interview)

Demonstrating the strength of the relationships that can develop between staff and the residents they serve, two individuals discussed how the loss of one particular staff member due to turnover had impacted them:

> I don't really deal with the staff too much. He's the only one I always talked to…It's been at least three or four months, I think. I didn't know he was leaving until the day he did…[H]e was a good guy; he helped. We talked a lot. (Male, Age 36, 12-month interview)

The loss of this staff member was a huge blow for the residents who were close to him. In this particular case, the loss was particularly upsetting to the resident because they never got to say goodbye.

While the loss of different types of relationships described above may seem troubling, when looking closer, the majority of these relationships were also examples of negative support. This is clearly shown in the examples discussed above where residents discontinued relationships because they were trying to avoid substance use, repeat theft, abuse, or just generally feeling put down. One of the previously discussed romantic relationships provides a strong example of a resident terminating a relationship saturated in negative support:

> …I would get away from my girlfriend because I'm more of a follower than I am a leader, so she asked me last time I relapsed. She's like "if I wasn't smoking crack or whatever…would you be?" I was like, "no"…because I['m] like, monkey is like monkey see [monkey see, monkey do]…It's like when she did something, I would do it. Because if I didn't do it I would get beat up…It's over. She's even banned from Penn Place…I have support here, and I'm clean, so...If I was still hanging out with her, I probably wouldn't be in this interview today. (Female, Age 29, 6-month interview)

In addition to providing the support this resident is using to maintain sobriety, she described how staff member's banning of her ex-girlfriend from the building also assisted her in terminating the relationship.

Criminal Justice Involvement

Twenty-seven of the 32 residents interviewed at baseline had public records indicating episodes of incarceration for the years 2014, 2015, and 2016.[6] By year, the number of residents

[6] We included data from 2014 in our analysis to understand if there were any preexisting trends in incarceration rates that housing could not account for.

with record of incarceration was 14 residents in 2014, 9 residents in 2015, and 7 residents in 2016.

While not displayed, the total number of times these residents were incarcerated (in either jail or prison) decreased each year, with a significant difference occurring between 2014 and 2016 (t=2.275, p=0.03). Figure 8 displays the average number of days residents were incarcerated decreased each year with significant differences between 2014 and 2016 (t=1.907, p=0.07) and near significant differences for 2015 and 2016 (t=1.839, p=0.08).

Figure 8. Average days incarcerated during identified years (n = 27)

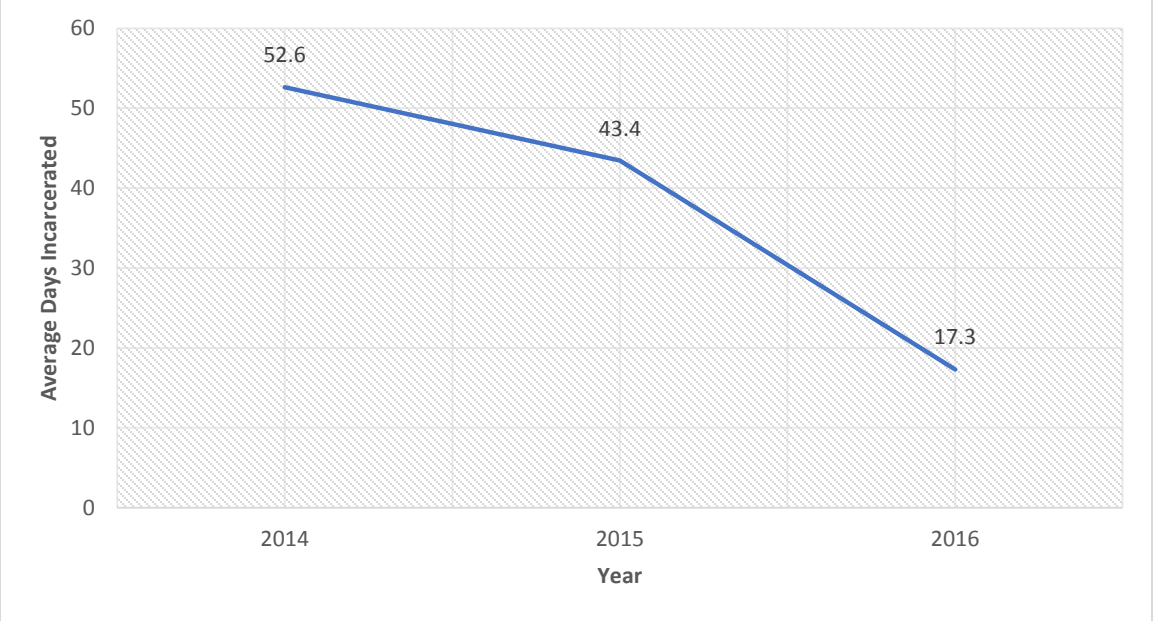
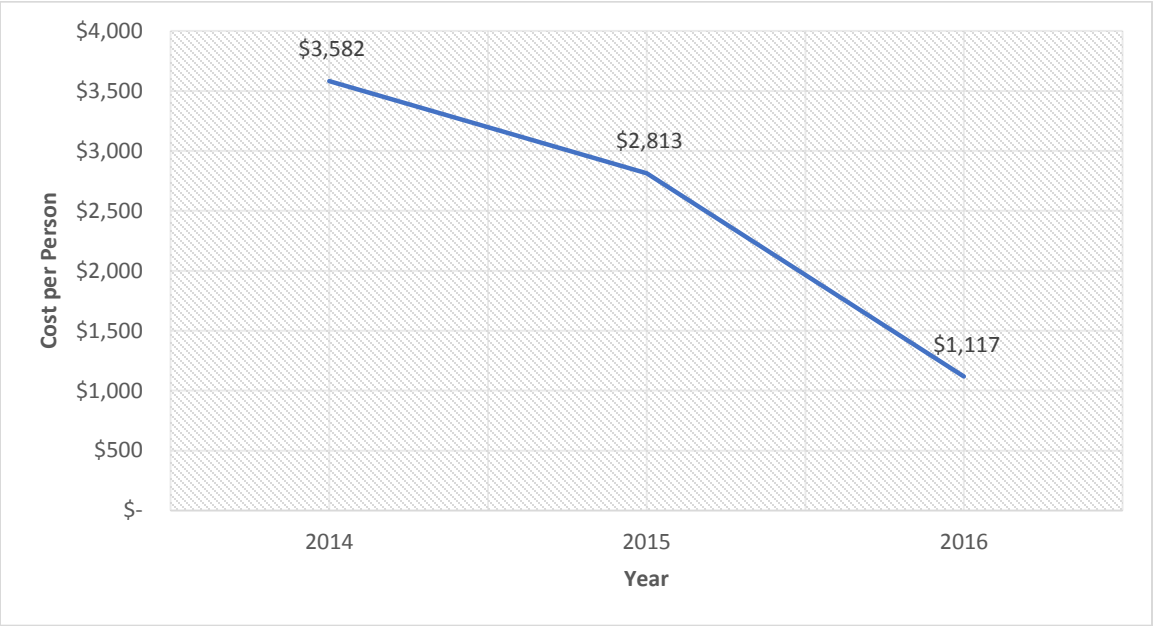


Figure 9 displays the average cost of incarceration each year,[7] which was significantly different between 2014 and 2016 (t=2.232, p=0.03) and neared significance between 2015 and 2016 (t=1.805, p=0.08). The roughly estimated total costs of incarceration were $96,702 in 2014, $75,961 in 2015, and $30,161 in 2016. Specifically looking at 2015 to 2016, there was a $45,800 estimated savings to the criminal justice system. If the downward trend from 2014 to

[7] The average cost of a day of jail and prison in Indiana are $82.00 and $58.15 respectively.

2015 would have continued as projected (a decrease of 21%), this savings would have only been $16,292. Therefore, the additional estimated savings to the criminal justice system in 2016, which is assumed to be at least partially due to housing, was $29,507, which is a conservative estimate, as it does not include time police engage in an encounter and paperwork associated with an arrest.

Figure 9. Average cost of incarceration per year (n = 27)



INCOME

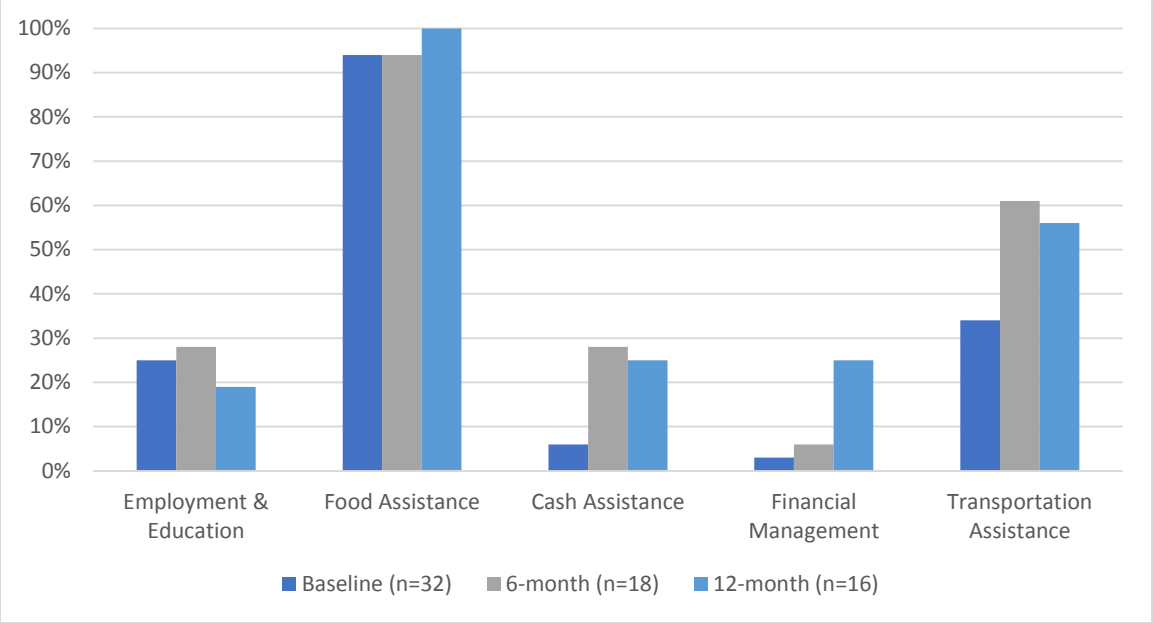
As demonstrated in Table 8, residents were significantly more likely to report increased income over time, with total income increasing an average of $359 dollars per month from baseline to 12-month interviews. Much of this gain was due to increased funds due to employment and social security. Consistent with the increase in cash assistance noted above, significant gains in income related to public assistance and social security were seen. Finally, it is worth noting that, while not significant, reported income from panhandling and non-legal means did decrease over time.

Table 8. Change in resident income				
	Baseline (n = 32)	**6-month (n = 18)**	**12-month (n = 16)**	**P-value**
	Mean (SD)	Mean (SD)	Mean (SD)	
Employment	11.8 (54.8)[a]	66.7 (237.6)	237.5 (796.6)	0.40
Unemployment	20.3 (114.9)	0.0 (0.0)	0.0 (0.0)	0.60
Public assistance	62.8 (149.4)	66.2 (115.4)	13.4 (48.4)	**0.06**
Social security	45.3 (172.9)[b]	157.1 (303.1)	265.6 (425.3)	**0.05**
Family or friends	17.5 (56.1)	25.0 (52.2)	65.6 (185.9)	0.57
Panhandling	11.7 (47.0)	2.2 (9.4)	3.1 (12.5)	0.17
Non-legal	16.6 (55.9)	5.6 (23.6)	6.3 (25.0)	0.53
Other income	4.2 (21.3)	11.1 (47.1)	0.0 (0.0)	0.52
Total income	232.8 (478.8)[b]	333.8 (315.0)	591.6 (795.7)	**0.05**
[a]n = 31; [b]n = 30				

Service Use

At baseline, all residents were asked a number of different questions related to social and health services within the past 12 months. At 6-month and 12-month interviews, they were asked the same questions to assess any changes in service use since their last interview. Figure 10 lists the percent of residents reporting specific social services used at each time point. Reports of using food assistance was notably high at all three time points, indicating residents have continued to rely on these services at high rates after obtaining housing. Reports of using cash assistance went up considerably at 6- and 12-month interviews, which is likely due to the fact that more clients were able to obtain assistance with benefit enrollment. Financial management also went up considerably, indicating residents are seeking assistance with handling their money.

Figure 10. Residents' reported social service use at each time point*

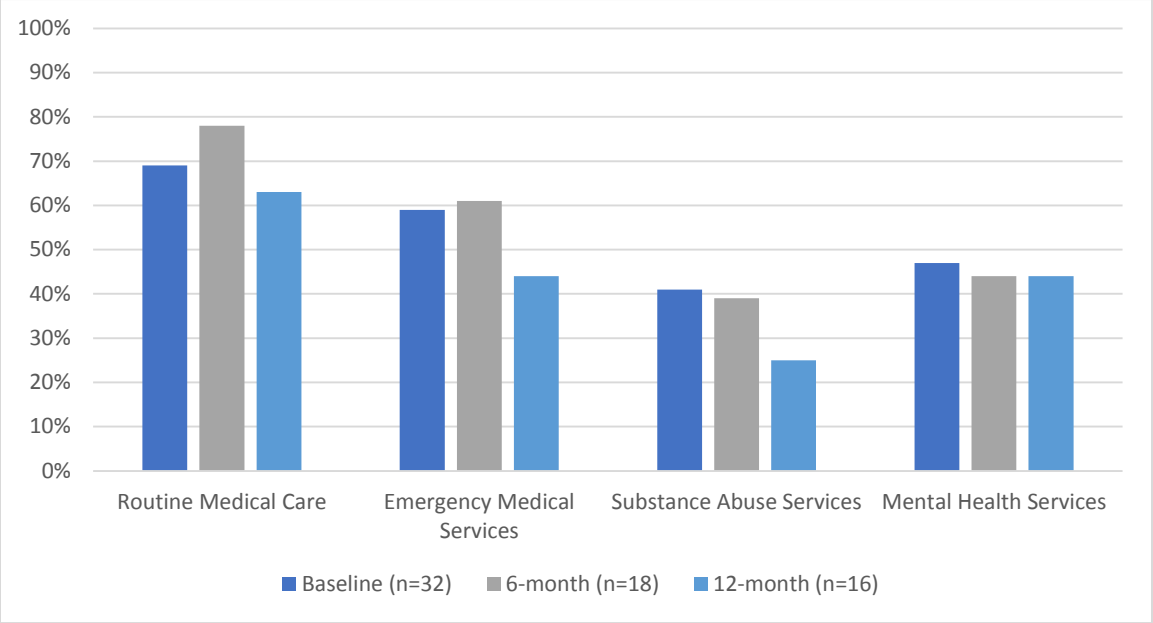


*Questions from Sosin, George, & Grossman [11]; Employment & education services = job related services/employment agencies and education services; Food assistance = food pantry, food assistance programs, meal programs/soup kitchens; Cash assistance = TANF, Workfare, SSI, SSSDI; Financial management = help with money management, budgeting, representative payees

Figure 11 displays resident use of health services over time. Reports of all type of health care declined to some degree, even if they initially increased at 6-month interviews. One of the most positive trends seen here is the reported decrease in use of emergency which is a possible early indicator of primary care access and/or improving health.

In qualitative interviews, residents discussed using a variety of services while living at Penn Place including food assistance, employment services, transportation assistance, cash assistance, assistance scheduling healthcare appointments, and group support meetings. When discussing food assistance, residents largely described utilizing food pantries from an offsite location and described their continued use of this service from before being housed. However, some residents also mentioned how Penn Place staff had directed them to food pantries, as well as discussing participation in community meals provided onsite.

Figure 11. Residents' reported health services use at each time point



*Questions from Sosin, George, & Grossman [11]; Routine medical care = preventative medical care or any other medical care; Emergency medical services = emergency department; Substance abuse = drug or alcohol detoxification, other residential or inpatient substance abuse treatment, outpatient drug or alcohol treatment, 12-step programming; Mental health = outpatient mental health treatment

Regarding employment services, residents discussed receiving assistance from Penn Place staff in completing employment applications, developing resumes, or job searching: "They [staff] will help you fill out resumes and things like that. They help me make online applications 'cause my computer skills aren't really good" (Female, Age 48, 6-month interview). Residents also frequently discussed receiving transportation assistance for health-related appointments and stated they received bus passes from Penn Place to cover these trips. Discussion concerning cash assistance focused primarily on the aid residents received from Midtown and Penn Place staff in completing paperwork for disability or Social Security applications: "…he [caseworker] helped me through just a sea of paperwork when it came to getting disability and stuff" (Female, Age 51, 12-month interview).

Residents also spoke of the support they received regarding healthcare appointment scheduling—how staff assisted them in making new healthcare appointments or confirming

appointment times, and providing medication reminders. One resident shared that the staff help schedule appointments and assure he takes his medication:

> Oh the staff? Yes they are helpful. If they see a need, they will help you get an appointment or make sure you are taking your meds or if you need a prescriptions or need to see a provider. They can help you with all of that. (Male, Age 53, 6-month interview)

Another resident spoke about how the staff will help confirm healthcare appointment times as well as provide medication reminders:

> They call and make sure my appointments are on time…you know good like that. They make sure that I'm keeping up with my medications and just making sure that I'm okay. (Male, Age 50, 6-month interview)

Other residents spoke about how staff often provided them with valuable reminders to attend these appointments.

Residents often discussed the healthcare services they were utilizing, with most stating that they regularly received routine healthcare services at Midtown, Pedigo, or Eskenazi where most of them had received services prior to Penn Place; though, a few did mention seeing other providers in the community who they had long-standing relationships with.

Regarding group supports, residents largely spoke positively about meetings offered at Penn Places:

> It [group therapy] gives me that outlet of all the stress of the week and challenges and things I gotta deal with. It gives me a chance to voice them and get them out. So that helps! (Male, Age 50, 6-month interview)

Another resident shared how group meetings helped form a new and more positive identity as someone in recovery from substance use disorder whose experience can benefit others:

> It [group therapy] helped me remember that I'm not what I once was; that I'm not dependent on drugs, and that I have something to offer other people about how to stay sober, and stuff like that. (Male, Age 48, 12-month interview)

Despite positive opinions of group therapy, a few residents shared they no longer took part in the group support: “I come back and when I come back [to group meetings]…I don't really like the atmosphere” (Male, Age 63, 6-month interview).

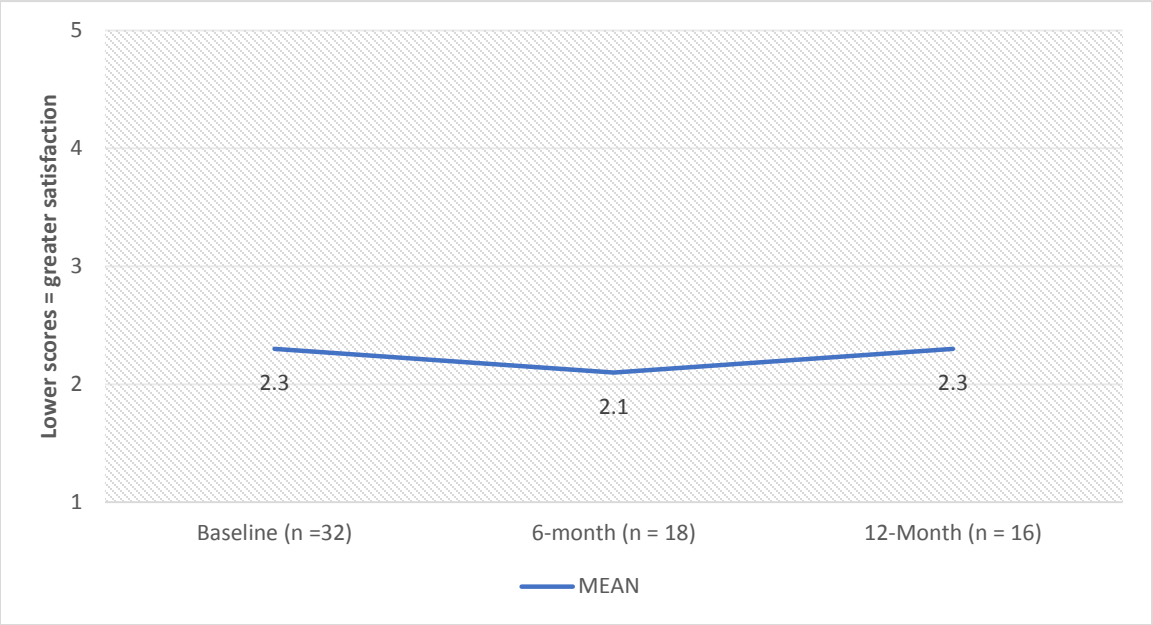
While discussion of substance use service access was largely limited to group therapy offered at Penn Place, one resident did discuss his recent utilization of substance abuse detoxification and treatment, services he did not feel he was able to appropriately access previously due to the instability that accompanies living on the streets: “I've [recently] got alcohol treatment and all that, I've just never had a stable place to stay long enough to get any of that done” (Male, Age 36, 6-month interview).

Finally, a number of residents discussed additional miscellaneous support services they found helpful while at Penn Place, including on-site haircuts, computer and internet access, and free toiletries and cleaning supplies.

Perceptions and Attitudes toward Penn Place and the Neighborhood

We asked residents a series of questions to assess their satisfaction with Penn Place and the neighborhood in structured interviews. Figure 12 displays change in mean satisfaction scores over time, which was calculated by averaging answers to all of the questions listed in Table 9. Questions were rated on a scale from 1/ “strongly agree” to 5/ “strongly disagree”, so lower scores reflect greater satisfaction with the program. As demonstrated in Figure 12, residents’ responses indicate generally favorable attitudes toward Penn Place, which did not vary significantly over time.

Figure 12. Satisfaction with Penn Place*



*Average of 15 items from Sosin, George, & Grossman [11], **lower scores reflect higher satisfaction**; see Table 7; p = 0.74

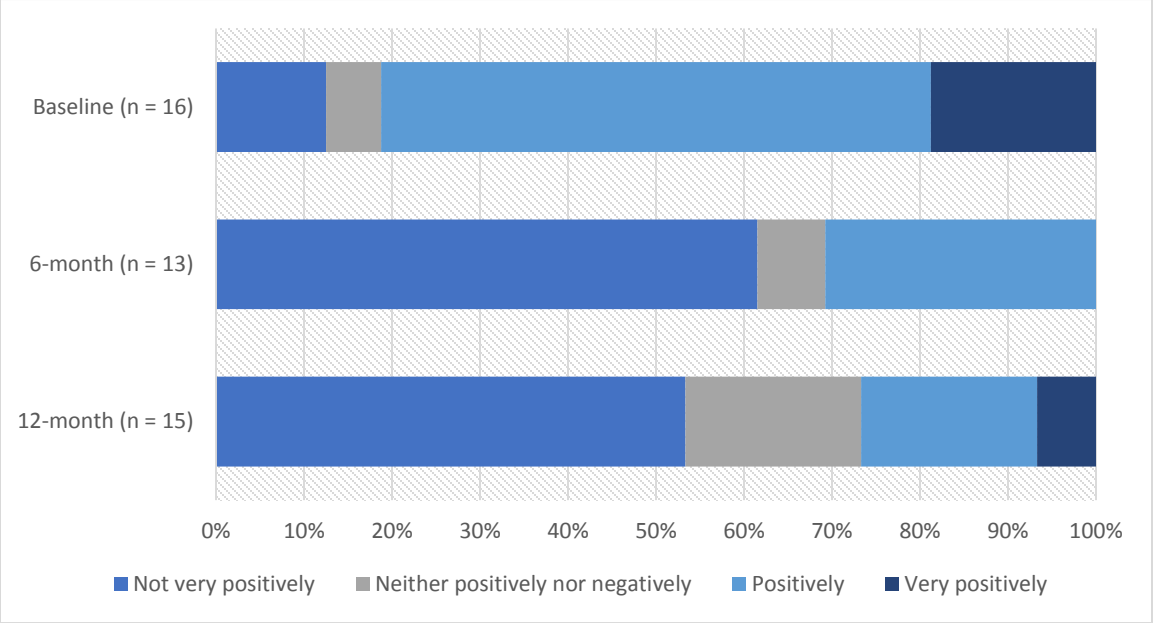
Table 9 displays the difference between 6-month and 12-month score averages for the satisfaction questions. While answers to individual items are reflective of high program satisfaction overall, we have highlighted the five areas with the highest degree of change in the undesired direction to indicate areas where resident satisfaction decreased the most.

While program satisfaction was high, residents seemed to have less favorable attitudes toward the neighborhood in general. Looking at Figure 13, residents were significantly more likely to respond that the neighborhood held negative views of the program over time. While not significant, Figure 14 does demonstrate a similar trend in that residents indicated feeling less welcome in the neighborhood at 12-month interviews than baseline.

Table 9. Difference in average scores on 6-month and 12-month program satisfaction questions[a]			
Questions	6-month	12-month	Change[b]
1. Workers in this program care about their clients.	1.41	2.00	0.59
2. This program works well with clients to solve their problems.	1.47	2.25	0.78
3. Workers in this program act like clients are of great value.	1.59	2.63	1.04
4. Workers in this program respect their clients.	1.29	2.25	0.96
5. Workers in this program listen to their clients.	1.35	1.75	0.4
6. I trust workers in this program.	1.78	1.94	0.16
7. This program is of high quality.	1.44	1.94	0.5
8. Workers in this program know what they are doing.	1.35	2.19	0.84
9. This program offers all the services I need.	1.72	2.06	0.34
10. Workers in this program treat clients like children.[c]	4.17	3.13	-1.04 [b]
11. It was easy to find this program.	3.38	3.25	-0.13
12. It is easy to get as many services as I need from this program.	1.89	2.13	0.24
13. It was easy to get into this program.	2.94	3.00	0.06
14. Overall, this program has been very helpful for me.	1.11	1.44	0.33
15. This program has the power to really help me.	1.11	1.44	0.33
16. My life is more messed up than ever.[b]	4.83	4.63	-0.2 [b]
17. My life has gotten better since getting here.	1.17	1.44	0.27

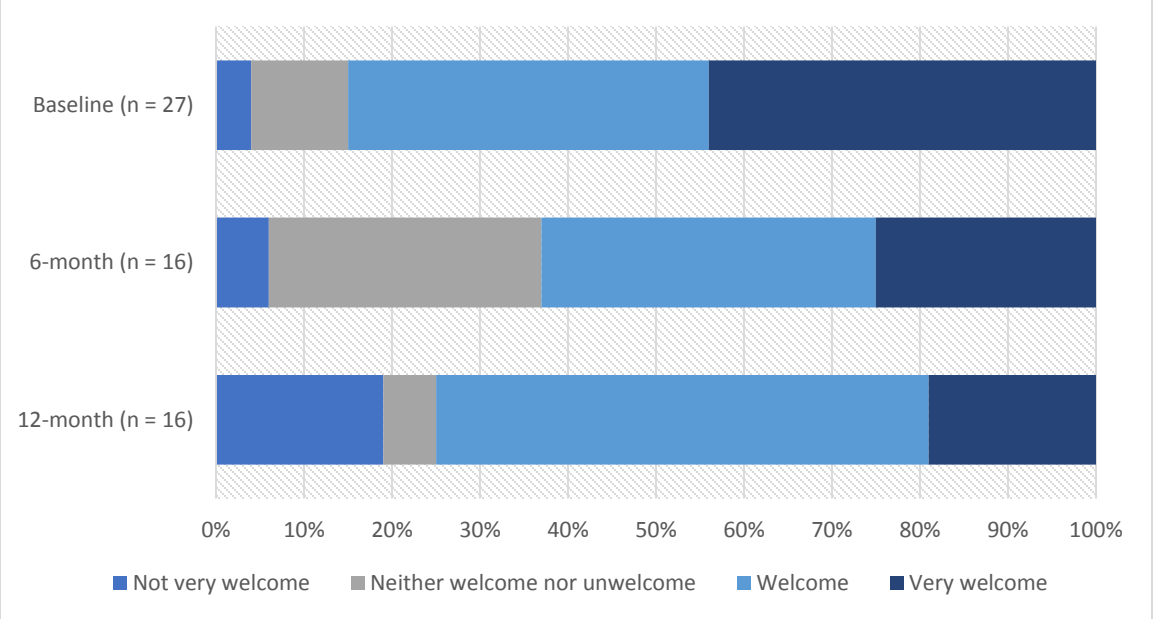
[a]Questions from Sosin, George, & Grossman [11]; Answers ranged from 1 = "strongly agree" to 5 "strongly disagree"; **lower scores mean higher satisfaction**.
[b]Five areas with most change between baseline and 12-month interviews are shaded in blue.
[c]These questions are reverse coded, so higher scores mean higher satisfaction.

Figure 13. How positively residents think neighborhood views Penn Place*



Response to question "Thinking of the neighborhood as a whole, how positively do you think people living in it view this housing project; p = 0.01

Figure 14. How welcome residents feel in the neighborhood



Response to question "In general, how welcome would you say you feel in this neighborhood?"; p=0.57

Entry and expectations

Details of the Penn Place application and entry process were discussed during the qualitative interviews, and residents spoke positively about the process. The majority of

residents shared what they learned about Penn Place through a service provider. Discussions of the application process tended to focus on its simplicity, and a number of residents stated they received assistance with the application paperwork with minimal involvement required from them during the process:

> All I remember is one of my care coordinators told me she was going to sign me up for housing and I had to answer some questions and I think she put through all of the paperwork for me. I honestly didn't think anything would come of it, so I forgot about it until it actually happened. (Male, Age 36, 6-month interview)

Residents discussed varying lengths of time between application and move-in. Some residents reported only waiting a few days to move in to Penn Place, and others reported being on the waitlist for approximately one year.

Residents shared that they were excited once they had learned of their acceptance to the program:

> I'll never forget it and [caseworker] just told me I had been housed. I was like "What?"…She said, "Are you sitting down?" I said, "Yes." She said, "Well you just been housed." I was just so excited. I started crying—it was happy tears—I was so excited! (Female, Age 48, 6-month interview)

Residents regularly expressed high expectations for how they believed obtaining housing at Penn Place would improve their overall quality of life:

> Well, when that happened, when I moved in, I felt that it was going to be a very, very positive impact because I was put into a situation to where I could make changes, to where I could go to work. Because, it's really hard when you're trying to go to work when you're homeless and don't have a stable home. Because, going to work consists of a person having well hygiene, and having a place to go to get rest. You have to have a good rest to go to work. (Male, Age 48, 12-month interview)

What residents like about Penn Place

Residents informed us of a number of things they liked about Penn Place and/or thought the program did well during qualitative interviews, which are detailed below.

Housing quality. During discussions of housing quality, residents largely stated that they liked the building layout and that the apartments were "accessible". Residents also discussed liking their individual units. The following statement in which a resident expresses how the quality of their unit greatly exceeded their expectations is a typical example of residents' sentiments toward their individual units:

> And this, I still, when I walked in, I was stunned. I expected a little sleeping room. I expected something the size of my laundry room, and I would have been happy with that. So, I got this nice, big, one bedroom place with a washer and dryer. I don't have to go to the laundromat. Yes. Oh, believe me; I've never had a garbage disposal. I don't think I've had a dishwasher in 20 years. Yes. This is amazing." (Female, Age 51, 12-month interview)

Supportive services staff. Residents consistently discussed the quality of the supportive services staff (i.e., Midtown and Horizon) and their ability to provide resources, as well as the capacity of the program to address fundamental needs of the residents. A number of residents expressed gratitude for these staff and described them as genuine, supportive, and encouraging. For instance, one resident described the staff in a positive light and expressed appreciation for them:

> The people [supportive services staff] here, they're wonderful…because, you know they could probably go anywhere else and have a lot less hassle and probably make better money. But, they stay here because they have the heart for it. And, I'm just glad that we have them. (Female, Age 51, 12-month interview)

Another resident described the service staff members' willingness to help the residents:

> To me the strongest points of the program is their [the supportive service staff] openness, their willingness to help you with all of your needs just not some of

> them, no matter if it's personal or professional they help you." (Male, Age 53, 6-month interview)

These sentiments are not surprising considering the high levels of support residents reported receiving from supportive services staff discussed in the section on social integration above.

Resident critiques of Penn Place

In addition to expressing what they liked about the program, residents also offered a number of critiques regarding things they are unhappy with or thought Penn Place could do better.

Building cleanliness and maintenance. Despite being pleased with the overall quality of the building, residents often expressed dissatisfaction with its cleanliness, particularly in common areas. For instance, one resident discussed the need for cleaner hallways and elevators:

> We have a problem with the entryway and the hallway by the mailbox and the 1st through 4th floors. They need to be swept more often and mopped... people tend to make messes down there a lot. (Male, Age 51, 12-month interview)

Another resident discussed that only the first floor is mopped but that the other floors often need cleaning: "They only mop the first floor. So, they don't mop none of the other floors… They need to mop all the floors" (Female, Age 29, 12-month interview). Residents also complained that their neighbors often left trash in the hallways, rather than properly disposing of it outside.

A number of residents also discussed dissatisfaction related to maintenance of the appliances in their apartments, including the time it takes to respond to maintenance requests. One resident described how they have "a problem with my ceiling leaking in the bathroom" as

well as a problem with their smoke detector "that's beeping and chirping" (Male, Age 41, 12-month interview). Another resident shared how her toilet was broken for a few weeks:

> I love my apartment, but it's just when I first moved in, my toilet didn't work for about two weeks. I kept calling maintenance and didn't try to use the bathroom, my toilet. (Female, Age 48, 12-month interview)

After waiting for more than two weeks for maintenance, this resident ended up seeking help from her son who assisted her in fixing the problem.

Safety and security. Many residents expressed that they feel safe within their own apartment but have concerns about safety within the common area. Residents specifically spoke about their concerns that "other residents of this building let people in" (Female, Age 43, 12-month interview) who should not be. Another resident expressed concern that banned individuals may still be allowed access to the building:

> You know, they still having problems with the people letting in the people that are ban[ed] from the building getting in the building. We're supposed to call the cops, but how are you going to call the cops when you don't know what apartment they went to. (Male, Age 50, 12-month interview)

Furthermore, a different resident described the need for evening security after staff hours: "Because they [staff] leave at ten o'clock. After ten o'clock, all hell breaks loose. That is when people come out of their apartments" (Male, Age 50, 6-month interview). Related to this, residents also complained of noise in hallways and excessive knocking on their doors by other residents and visitors.

Program rules. Some residents reported that the positive expectations they had for Penn Place upon moving in were soon overshadowed by the multiple program rules. Speaking of these rules, one resident stated: "I thought it would be more just a conventional apartment [upon moving in] without all the constraints" (Male, Age 61, 6-month interview). A number of

residents specifically described their dissatisfaction related to visitor rules, such as having to accompany visitors in the halls, not being allowed to leave visitors unattended, and not being able to have overnight guests as frequently as they wanted to. Some of the residents expressing this dissatisfaction made statements indicating these rules made them feel like they were not living in a "normal" apartment.

Finally, residents stated dissatisfaction with rules that interfered with their inability to truly make their unit their own, as they were not allowed to bring in their own furniture or hang pictures on the walls.

Program staff. While discussions of staff were largely positive (as demonstrated in the above section on social integration), residents did offer several critiques. For instance, there was some belief that staff members were too lenient on people with more serious mental health and substance use issues, and this sentiment was largely applied to supportive services staff who were seen as coddling certain people.

Discussions of property management tended to be more negative than those of supportive service staff. In general, residents felt property management was unhelpful, did not respect privacy, and inconsistently applied rules. Demonstrating complaints about privacy, one resident discussed an interaction where property management entered her apartment:

> [Property management] will pound on the door…bang, bang, bang. [Property management] came in, it was, like, 8:00 a.m., I was still in bed, and it scared me. I have PTSD, and it's pretty severe. I was screwed up for three days after that, "bang, bang, bang", and [property management] was in the room with this complete stranger. It turned out to be an exterminator…I grabbed a robe, I covered myself up, I was scared to death. I was scared to death. After [property management] left, I vomited; I couldn't eat for three days…[property management] does that to a lot of people. (Female, Age 51, 12-month interview)

Other residents stated that property management was “prejudice” or applies rules inconsistently because they “got some rules for some people and other rules for others” (Male, Age 54, 12-month interview). One resident did make a statement indicating they thought property management could do a better job if there were “more people in here doing things” (Female, Age 43, 12-month interview), indicating the need for more property management staff.

Another concern regarding staff that was already discussed above was turnover. Indeed, one resident stated “I’m not getting close to anyone anymore” (Female, Age 43, 12-month interview) when expressing her feelings related to their favorite staff member leaving and the rotation of various temporary staff who had been brought in to fill this space.

Additional services desired. When asked about additional services desired, resident responses focused on the need for additional transportation, more frequent community meals, and additional support groups. A number of residents shared that they experience difficulty accessing transportation and would benefit from bus passes or transportation assistance to places aside from healthcare appointments. For instance, one resident spoke about the need for transportation to the grocery story:

> I'm spending $20 just to get a ride, you know what I mean? I know there is a lot of people here that don't have access to a ride, who could really use the transportation to the market, at least once a month. Load a bus up or something. (Male, Age 50, 6-month interview)

Another resident mentioned that they would like bus passes “just go downtown or to go visit somebody” (Male, Age 54, 12-month interview).

Regarding the need for additional food assistance, one resident discussed the struggle to access quality food and that additional community meals would be helpful:

> I was thinking maybe they could help find more people to come out and provide meals or at least get a meal a day or something. There are a lot of people struggling around here to buy food and stuff. I mean, the pantry will help, but people need to get at least one good meal a day. (Male, Age 53, 12-month interview)

Finally, some residents discussed a desire for additional types of support groups in addition to addiction support, including grief or cancer support:

> Not just drugs, [offer a] cancer survival [group or a group on] loss, losing loved one…other programs that are vital to changing the way that people here live and the way they think. (Male, Age 48, 6-month interview)

Another resident also shared a need for counseling related to loss:

> I did think about like a grief counseling thing. A lot of people here have been through - like my fiancée died a couple of years ago and I know a lot of people who've lost people close to them. (Male, Age 36, 6-month interview)

DISCUSSION

Fidelity reviews demonstrated Penn Place was implemented with faithfulness to the Housing First model. Furthermore, the program was able to **sustain a high fidelity score** even after the discontinuation of technical assistance provided by the MHRI. However, additional sources of data do raise concerns regarding the program's ability to sustain fidelity over the long term—i.e., intervention drift [17]—the most pressing issue in related to fidelity being **staff turnover**. This is because the staff member who residents informed us left the program was a key member of the implementation team, and thus received specialized training and guidance related to the Housing First model that a staff member brought in to replace him will likely be lacking. Residents' **lack of understanding of Housing First and harm reduction** is also concerning, as consumer education is one of the mechanisms through which residents "attach meaning to the choices provided…[and] is an essential component for assuring benefits of a

flexible service structure are fully realized" [10]. A possible consequence of this is that residents will be less likely to interact with and seek assistance from staff out of fear that making their problems (particularly related to substance use) known may lead to eviction. A final concern related to fidelity is the evictions that occurred over the year. While these evictions were for reasons that are understandable within the context of a Housing First approach, the relatively high number suggests **more could be done to prevent similar issues in the future**—one possibility is revisiting the program's homelessness prevention plan that details steps to be taken when issues that result in eviction occur.

Related to residents, the collection of both quantitative and qualitative data led to a stronger understanding of the program than any one data source could have provided alone. A comparison of major findings related to each data source and conclusions that can be drawn is presented in Table 10. Baseline interviews with residents demonstrated the program was meeting its original intent of housing individuals with long histories of homelessness and high levels of medical vulnerability. Not surprisingly, these interviews also demonstrated significant interactions with the criminal justice system and experiences of traumatic life events that must be addressed alongside health issues in order to have any significant and long lasting impact on resident outcomes [18, 19]. The history of trauma raises specific concerns related to residents' feelings of safety and security in the building. The example of property management entering the apartment of a resident with PTSD discussed above demonstrates an instance where a more tactful and respectful approach could have **prevented further trauma being inflicted** on a resident.

Table 10. Comparison of primary quantitative results and qualitative findings related to major areas of inquiry in this evaluation			
Area of inquiry	**Quantitative results**	**Qualitative findings**	**Conclusions**
Health	No significant improvements in physical health observed Though no change, addiction severity was high at all time points Significant increase in alcohol use	Improved treatment compliance, management of chronic problems, "feeling better", and maintaining health as a result of housing Less use of emergency care Many residents discussed avoiding others who drink or use substances.	Improvements in ability and behaviors to address health and reduced use of emergency care suggest improvement improvements in health are occurring but may be too early to measure using outcomes chosen. While not increasing dramatically, substance use is high among residents. Though, problematic substance use seems to be concentrated within a subpopulation of residents.
Food access	Significant differences in food access observed at different time points	Difficulties accessing food and reliance on food assistance services remained at high levels Increased ability to store food was expressed benefit of housing access	Residents experience difficulty accessing food at similar levels to those experienced while homeless; though, stable housing has helped with storage and refrigeration when food is accessible.
Social relationships	Non-significant decreases in social network size Noticeable increase in family members and romantic relationships making up network and decrease in professionals; Significant improvement in closeness of social network members	Quality of relationships, particularly of family and professionals, reported to improve; Shedding of negative relationships	While social network decrease is likely due to decreased reliance on multiple professionals and resident avoidance of people who have negative impacts on their lives. While networks size decreased, residents developed closer relationships with family members.

Criminal justice involvement	Significant decreases in days in incarcerated and estimated costs to criminal justice system since housed	No findings due to lack of qualitative data pertaining to this issue.	Housing has had a positive impact on criminal justice involvement, though actual cost-benefit of housing related to these improvements is not able to be determined
Income	Significant increases in income	No findings due to lack of qualitative data pertaining to this issue.	Housing has had a positive impact on resident incomes, largely due to increased access to income assistance programs.
Program and neighborhood perceptions	High satisfaction with program remained consistent; significantly more likely perceive neighborhood thinks negatively of program over time	A number of program strengths were discussed; residents provided a number of critiques of program	Residents hold Penn Place in high regard despite issues with neighborhood and critiques of programming.

While there were no statistically significant gains in resident health over the year, **reports of improved health were common** in qualitative interviews. Discussions with residents also provided multiple examples of **improved treatment compliance** and **management of health problems** that likely would not have occurred without the stability housing provided. These are important changes in health behavior that will likely lead to improved health outcomes over time, which our quantitative data collection was not set up to assess.

The statistically significant increase in addiction severity is concerning, but not surprising. Research on the efficacy of Housing First programming for improving substance use has been mixed, which one randomized control study demonstrating it occurred at the same levels in residents of abstinence-only programs [3]. A primary advantage Housing First programs have over abstinence-only ones is that residents are often more willing to seek help when they do not have to fear eviction for substance use [20]. Furthermore, previous Housing First research has demonstrated individuals who actively use substances can successfully maintain housing [21]. Indeed, this was demonstrated in the case of the resident who told us she sought staff assistance obtaining detox services. **The process for seeking assistance with substance use issues will take time**, and a major component of it will be residents' ability to approach staff with their concerns without fearing eviction. Thankfully, our interviews already demonstrated strong relationships between supportive service staff and residents that should help facilitate these changes over time. Improving resident education in Housing First and harm reduction, as discussed above, should also help improve these relationships and assuage resident fears that may prevent help seeking.

One of the most glaring concern for Penn Place residents is **access to food**. Based on our results, it would be worthwhile for the program to investigate reasons for SNAP ineligibility among many residents. One likely barrier to accessing this program is having a past felony conviction, a characteristic associated with 61 percent of the residents we interview.

While the ability of Housing First programs to improve social integration of residents has been highly touted [22–24], actual research findings to support these claims are not as robust as those for other outcomes. While changes in social network composition did not change for residents, they were significantly more likely to report having **someone to talk to about their worries**. This finding may be due to the fact that improvements in relationships noted in qualitative interviews resulted in the quality of relationships improving, despite minimal changes in the actual network structure. Resident discussions of reconnecting with family and shedding negative and abusive relationships support idea that **housing stability can lead to improvements in existing relationships**. It is interesting that the number of professionals residents discussed being connected to in structured interviews decreased considering how much developing relationships with staff was discussed in the qualitative data. Perhaps residents began to rely less on multiple relationships they had developed with services providers in the larger community as they began to access the majority of needed services through Penn Place? Loss of networks members—professionals and those with negative impacts on resident lives—has been demonstrated in previous Housing First research [25], which indicates this may be a generalizable pattern associated with the program model (or possibly housing access in general) that is not unique to Penn Place.

While not directly reflective of social integration, residents' negative outlook regarding neighborhood perceptions of the program likely has an impact on their willingness to try and develop relationships with organizations and individuals within their community. Previous research has provided some evidence that single-site housing may be less conducive to Housing First residents' integration within the community compared to those living in subsidized apartments located in independent buildings with a mix of resident types [22]. In the case of Penn Place, residents may feel as being associated with the building, which is well known as a place that houses formerly homeless people, **marks them as different from others within the community**, and thus makes them less willing to take social risks necessary to engage in community activities and meet new people [26].

Results related to incarceration support previous studies demonstrating improved criminal behavior and criminal justice outcomes for Housing First residents [27, 28]. While a rough estimate, our findings do demonstrate an estimated **cost savings on the part of the criminal justice system** related to reduced rates of incarceration. Assuming these trends will continue, then these **savings will likely continue to accrue over time**. Unfortunately, we are unable to calculate the actual cost benefits of Housing First over keeping people on the street We would need more complete data related to use and costs associated with a wide range of social (e.g., shelter and case management) and health (e.g., emergency department, hospitalization, and emergency medical services) services than we had access to. We would also need more complete criminal justice data such as time officers devote to arrest and processing. However, reports showing **reduced use of emergency care to demonstrate a potential savings** to the health system may be occurring. Additionally, if trends in significant

gains in income witnessed continue, residents will begin to take over larger portions of their rent, which will further decrease the cost of the program in relation to social, health, and criminal justice services.

While resident satisfaction with Penn Place was high, they also discussed a number of concerns that the program should seek to address in order to improve services. The most pressing of these being **cleanliness, building security, and issues with property management**. While they should not be ignored, problems residents had with property management are likely because these staff are operating in a manner that is appropriate for their position. In a strong Housing First model, property management should take on the role of rule enforcer to ensure supportive services staff can fully act as advocates for residents, as this division of responsibilities can help foster therapeutic relationships with service staff that can be a lever of change [9, 29].

The largest limitation to our evaluation is the attrition of residents participating in data collection at 6-month and 12-month interviews. We believe some of the discrepancies in participation between the two waves of data collection were related to seasonal effects. In other words, it was easier to recruit residents at January intake because they stayed indoors wishing to avoid the cold, and recruitment was more difficult during the summer follow-up because residents were less likely to remain in the building. Additionally, while residents could have been required to participate in the evaluation as a condition of housing, allowing them to make this choice is more compatible with the Housing First approach under which Penn Place operates.

The absence of significant differences in key factors between participants at each time point suggests lack of any noticeable pattern to the missing data that would have impacted the direction of our findings. Despite this, the low numbers in later interviews possibility impacted our ability to detect some statistically significant differences. Furthermore, the use of mixed methods is a particular strength, as the use of complementary data and triangulation of findings provides context and improves our confidence in changes in trends when results from different data sources pointed in similar directions [8].

RECOMMENDATIONS

Below are several recommendations based on the evaluation results. We recommend Midtown, Horizon House, and the Indianapolis Housing Authority come together to discuss these recommendations and whether and how they wish to pursue them.

1. All new staff hired into the program should be required to complete training in Housing First and harm reduction approaches to ensure consistency in service delivery and avoid fidelity drift.
2. More efforts should be taken to educate residents regarding Housing First and harm reduction. A variety of modalities can be used to accomplish this task including: education in resident council meetings, providing simplified information in a resident bill of rights, educating during annual lease signing, and using instances where residents violate rules to reinforcing the program's approach.
3. Provide opportunities to discuss and address problematic substance use within a harm reduction framework. This means using an approach that focuses on behaviors related to

substance use that place residents' housing in jeopardy, rather than focusing on the substance use itself. Use the lease as a tool to guide these conversations to avoid perceptions of being judged on the part of the resident.

4. Investigate reasons for SNAP ineligibility of some residents and inform appropriate advocacy groups of barriers to access residents face such as felony background.
5. Disseminate the evaluation findings to residents so they feel time given to data collection was worthwhile and that they have a voice in the program.
6. The programs homelessness/eviction prevention policies and procedures should be revisited and discussed in light of evictions that occurred in the first year of operations to understand if there are ways they can be revised to better prevent future evictions.
7. Provide opportunities and/or make residents aware of opportunities in the neighborhood. Penn Place may want to investigate ways other Housing First programs have been successful in doing this. One example is Deborah's Place in Chicago, which offers several opportunities for community members to engage with their residents (https://www.deborahsplace.org/). Another approach is to provide opportunities for civic-minded community members to volunteer at Penn Place in some capacity. One way to do this would be to take advantage of Horizon House's existing pool of volunteers.
8. Make sure all staff service and housing staff receive training in trauma-informed care. Given instances described in the qualitative data, it may be helpful for property management to also take a course in Mental Health First Aid (https://www.mentalhealthfirstaid.org/cs/) to prevent any possible future traumatization of residents.

9. Access and utilize resources for Housing Fist implementation and practice such as those available through the Housing First Practice Community (http://housingfirstpracticecommunity.weebly.com/) and CSH (http://www.csh.org/resources/). The forums available through the Housing First Practice Community may be particularly useful for seeking advice and exchanging ideas related to innovative Housing First practice.
10. Increase security in the building with the addition of an overnight staff member who can monitor visitor traffic. The program should **avoid hiring** a professional security guard or off-duty police officer for this position considering the likely past trauma residents have experienced through encounters with these types of authorities.
11. Critically evaluate all other program critiques discussed by residents and reflected in this report, prioritize those that are most concerning and investigate ways they can be addressed in the coming year.

CONCLUSION

Penn Place was able to attain and maintain high fidelity of implementation to the Housing First model and resident satisfaction with programming. While resident participation in evaluation activities was low, a number of positive results related to health, social integration, incarceration, and income were observed. While the program is generally well-liked by residents, they did offer a number of critiques that should be considered when making program improvements.

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