Pinellas Hope V: Permanent Supportive Housing Program | Final Study Evaluation

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Ending homelessness in Pinellas County is possible through supportive housing initiatives like Pinellas Hope V. This report documents the implementation of the intervention and the subsequent public expenditure cost-benefits and social behavioral outcomes of the initial participants.

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Executive Summary

In Pinellas County, The Dioceses of St. Petersburg Catholic Charities (CC) has been at the forefront of helping individuals and families to thrive with the building blocks of well-being and opportunity for over 50 years. This organization strengthens the communities in Pinellas County by collaborating with public and private agencies, foundations, and community stakeholders to offer evidence-based programs that support residents in reaching their full potential. CC confronts the most challenging social issues, including persistent, long-term homelessness.

Pinellas Hope V (PHV) is an innovative Permanent Supportive Housing (PSH) program operated by CC to serve individuals who are homeless and further challenged by ongoing health and mental health disabilities. These individuals are high utilizers of public services and shelter sites due to their chronic co-occurring physical health and mental health conditions. This final evaluation of the PHV initiative documents the outcomes of the multi-year study investigating the public expenditure of housing and service costs and social behavioral outcomes of the initial residents who remained housed for at least two years at this site. Specifically, the housing costs prior to leasing at PHV and two years post move-in are included. The study utilizes information from a variety of HIPAA compliant data sources to aggregate costs and socio-behavioral indicators to determine outcomes.

This evaluation finds substantial cost savings in the use of public funds to address health and safety needs for the initiative's high-risk group of residents. Two years prior to moving into PHV, these individuals utilized $589,295 of public funds for various life-sustaining services. After two years of the residents living at PHV and participating in supportive services, this amount decreased by $226,478—which is a 38% savings in service costs per person. After PHV operational costs are factored in, the total post move in costs were $549,270 for a savings of $910 per person per year. With the success of PHV, substantial reductions were realized in:

- Annual shelter stay costs: 100% decrease
- Annual jail costs: 98% decrease
- Total physical health costs: 10% decrease
- Use of mental health crisis services: 94% decrease
- Use of substance use crisis services: 97% decrease
  Use of detox services: 100% decrease

In addition, residents noted improvement on several social-behavioral measures including:

- Increase in resident perceptions of quality of life
- Increase in resident perceptions of social relationships
- Increase in resident perceptions of the physical living environment

The outcomes and experiences of PHV residents mirror the robust evidence supporting the PSH strategy. Housing and other cost savings are demonstrated in this pilot housing program. Although appropriate mental health and physical services costs increased, those were more than offset by the decrease in jail, emergency shelter stays, crisis services, and substance use services costs.

PHV emerged as a stable housing opportunity for many former high-needs, chronically homeless individuals in the Pinellas County area. The accomplishments of this housing program are attributed to many factors, including CC's early financial contributions to sustaining the units and services; county support of the CABHI grant to provide on-site services, particularly intensive therapeutic mental health services for a limited number of PHV residents; and the thoughtful leadership and innovative efforts of the various employees working to staff and oversee the daily operations of PHV.

Pinellas Hope V Pilot Initiative

In Pinellas County, The Dioceses of St. Petersburg Catholic Charities (CC) has been at the forefront of helping individuals and families to thrive with the building blocks of well-being and opportunity for over 50 years. This organization strengthens the communities in Pinellas County by collaborating with public and private agencies, foundations, and community stakeholders to offer evidence-based programs that support county residents in reaching their full potential. CC is dedicated to confronting the most challenging social issues of our time, including persistent, long-term homelessness. Since 2010, CC has been a leader in services to those who are homeless by operating an established system of tent shelters and housing units at their Pinellas Hope (PH) community site.

In 2014, the Florida Housing Finance Corporation selected CC as one of three locations to spearhead a new Permanent Supportive Housing (PSH) program at the PH location, as part of a special funding appropriation to investigate the cost–benefit of PSH and its impact on general well-being to individuals who experience chronic homelessness and are high-utilizers of public services. PSH, which provides long-term housing options with supportive services to homeless individuals with persistent health and mental health disabilities, has been tested in many localities in the U.S. and is considered a best practice for assisting this high-needs group (Aubry et al., 2020). In many communities, providing housing with support services has stabilized men and women in this group and reduced public expenditures (Aubry et al., 2020; McLaughlin, 2011; Parsell, Petersen, & Culhane, 2017; Shinn & Tracy, 2014).

This final evaluation report documents the impact of a PSH-cohort model in Pinellas County over a two-year period through an analysis of data collected, measurement of public expenditure ROI and individual well-being outcomes, and recommendations for future community-strengthening initiatives that can apply the lessons learned from this initiative.

Program Overview

Pinellas Hope V (PHV) is a PSH program managed by CC to house adults identified as chronically homeless while also experiencing co-occurring physical and mental health needs. PHV leased to the first occupant in December 2016. It has the same architectural design as four other single-story housing buildings (Pinellas Hope II-IV) which are located behind the larger CC tent shelter site known as Pinellas Hope (PH). PHV itself consists of three buildings designated as G, H, and I. The Pinellas Hope apartment community; Pinellas Hope buildings II-V, houses approximately 180 individuals.

There are 45 units in the PHV buildings, each of which is furnished with home essentials such as a bed, couch, cooking items, and lamps; air-conditioners are provided as well. Residents can bring personal belongings and other items into their home units. Outside, there is a common laundry room, a small park with covered seating, and parking. Access to the buildings is ADA compliant, and the site is located behind a monitored, gated fence that serves to control vehicle and pedestrian traffic to and from this area.

As part of its comprehensive support system, CC employs two on-site case managers to work with each PHV resident as needed. The case manager and resident, who meet at least once a month or as needed, work together towards established health and well-being goals that include obtaining income, seeking employment, and/or improving health or mental health conditions. For intensive therapeutic interventions, PHV case managers refer residents for services offered through a three-year Cooperative Agreement to Benefit Homeless Individuals (CABHI) grant. The CABHI grant was nested in a SAMHSA grant that funded a collaboration between three agencies (Directions for Living, West Care, and Operation PAR) to serve high need vulnerable populations. Services provided by the CABHI grant funded these organizations to provide on-site intensive therapeutic services to PHV residents. In addition, residents of PHV may take part in select ancillary services offered by other groups, such as AA or NA meetings. As a way to foster connectedness and participation in communal life—thus strengthening the benefits of social cohesion and reducing the detriments of social isolation—residents volunteer at least 10 hours each week to the PHV community.

Pilot Initiative Study Design

The PHV initiative evaluation was guided by three research questions related to PHV's supportive housing efforts to reduce

homelessness and high utilization of high-cost services by homeless individuals in Pinellas County. This final evaluation report summarizes the aggregated data that was collected for 22 PHV residents who lived there at least two years (2017-2019). Data includes public expenditures for medical and mental health services and social assistance, housing costs, as well as resident well-being outcomes.

Research Questions

Question 1: Public Expenditures

What are the annual costs in public expenditures connected with the use of public systems?

Question 2: Cost–Benefit of PHV

What are the cost–benefits to providing this housing option and is it more cost effective than providing a lower level of coordinated housing or service intervention?

Question 3: Socio-Economic and Behavioral Outcomes

What are the socio-economic and behavioral outcomes for all residents of this housing option over the course of the occupancy (i.e., are resident outcomes improved)?

Interim Report Summary

This final report builds on an interim report submitted to the Florida Housing Finance Corporation (FHFC) that documented many of the changes that occurred in Pinellas County and within PH leadership and staff in 2017, as well as adjustments to the original evaluation plan recommended in 2014. A brief review of these developments is provided below:

➢A county-wide coordinated entry system among homeless housing and other service providers was used to prioritize available housing/shelter spaces to high-need chronic homeless individuals as leasing began for PHV units.

- A detailed interview guide, based on the Vulnerability Index–Service Prioritization Decision Assistance Tool (VI-SPDAT), was used to determine housing priority for high needs and chronically homeless individuals in Pinellas County.[1]
- Within the PHV staff and PH organization, there was leadership and staff turnover assigned to assist with this project and implement case management and other social services in PHV.
- Issues with the PHV building construction delayed initial occupancy of the units, thereby deferring the projected start of this initiative.

[1] VI-SPDAT is a combination of two widely used existing assessments: The Vulnerability Index (VI), a street outreach tool rooted in leading medical research which helps determine the chronicity and medical vulnerability of homeless individuals and the Service Prioritization Decision Assistance Tool (SPDAT), an intake and case management tool based on social science research that helps service providers allocate resources in a targeted way. (Source: OrgCode https://www.orgcode.com/get_the_new_vi_spdat)

- During the initial year of operation there was high resident turnover.
- Data collection tools and procedures were modified to respond to resident feedback and staff changes.
- Therapeutic support services provided by outside agencies, funded by local/state grants served a limited number of PHV residents.

As indicated in the interim report, there were critical shifts in policies and funding directions for homeless housing capacity at the national, state, and local level in the two years between the application for the PHV pilot and the start of leasing units to residents. The impact of these external factors influenced the launch and initial operations of PHV. However, the staff and leadership of PHV modeled the resilience they fostered in the initiative's residents by working hard to comply with the PSH best-practice model, adjust to the nascent countywide coordinated entry procedures, and address the complexity of socio-behavioral-health issues present in the initial PHV residents.

Evaluation Methodology and Study Sample

The study research design was initially submitted to the University of South Florida (USF) Institutional Review Board (IRB), which reviewed the application and determined that this research was not generalizable; therefore, the IRB application was closed. However, the initial and subsequent PHV research plans were thoroughly vetted by multiple stakeholders including FHFC and state agencies partnering with FHFC, PH staff and leadership at the time and as modifications were made, engaging these stakeholders in the design and piloting of the initial participant survey, data collection efforts, and resident participation recruitment. While the IRB decision reflected the unanticipated challenges to implementing the evaluation methodology as originally presented, the research and PHV teams maintained objectivity, transparency, and thoroughness throughout the course of the initiative and is documented in this final evaluation. The limitations resulting from the fluidity of external conditions are discussed later in this report.

Data Collection and Analysis

CC and PHV internal records informed all three research questions. In addition, data available through the Policy and Services Research Data Center at USF was used to provide public cost comparisons over time for the PHV residents (covering Research Questions 1 and 2). Leasing date into PHV serves as the key data point for Research Questions 1 and 2. Moving into PHV is considered the intervention enabling the use of a single group pre-and post-test design methodology. The data analysis time period for the cost evaluation is defined as the two years prior to housing (pre-intervention period) and the post-time period is defined as the two years of living at PHV (post-intervention).

For Research Question 3, data on the socio-behavioral-health information and services offered to residents were collected from their self-reports via a detailed survey in the first year, with subsequent self-reports captured on a modified World Health Organization Quality of Life-BREF (WHOQOL-BREF) tool were used (see Appendices A and B).[2]

This first instrument, Pinellas Hope Housing Survey (Appendix A), collected in-depth information about each resident upon move-in (baseline), 6- and 12-month data collection periods. However, as this tool was administered, PHV residents indicated that it no longer seemed relevant to their current living situation of stable housing and improved social conditions at PHV. Therefore, a modified WHOQOL-BREF interview survey was subsequently used for the 18-, 24-, and 30-month data periods, except for residents who started their tenure at PHV in the first of the three leasing phases in Year 1.

The WHOQOL-BREF (Appendix B) is short, can be self-administered, and the questions use easy, concise phraseology (Aigner et al., 2006). The WHOQOL-BREF uses a 5-point Likert scale to assess two universal quality of life and health questions that pertain to the previous two weeks. In addition, four quality of life domains—health, psychological, social, and environment concerns—can also be calculated. After reviewing the survey, four questions were removed that asked the resident about their sex life, appearance, transport, and self-satisfaction; the removal was due to situational factors in PHV, negating the ability to use the psychological domain embedded in this instrument according to scoring instructions. WHOQOL-BREF scoring instructions advise to transform domain scores to a scale of 0-100 to be comparable to the full WHOQOL; higher scores indicate more satisfaction.

Study Sample Characteristics: PHV Residents

This final evaluation considers 22 residents of PHV who sustained a minimum of two years of PHV residence and participation in the program and case management services. The majority of these residents entered PHV from an emergency shelter (*n* = 15), followed by a medical respite facility (*n* = 4), and a social service program (*n* = 3). Of the initial 47 residents included at the start of this evaluation and noted in the interim report, reasons for resident departures (*n* = 25) during this final evaluation period included: death (*n* = 5), need for higher level of care (*n* = 3), moving in with friends or independently (*n* = 7), move to shelter (*n* = 3), jail (*n* = 2), and left

[2] The WHOQOL assessment measures an individual's perceptions of well-being in the context of their culture and value systems, and their personal goals, standards, and concerns. The WHOQOL-BREF is a shorter version of the instrument comprised of 26 items in the broad domains of physical health, psychological health, social relationships, and environment. (Source: World Health Organization https://www.who.int/mental_health/publications/whoqol/en).

to unknown locations (*n* = 5). The total exceed the number of due to turnover.

Demographic Data

PHV residents (*n* = 22) in the final sample have the following characteristics: Men and women were equally represented (50% each); the majority (86%) were White-Non Hispanic, aged 55 or older (68%) at the time of occupancy, and lived in an emergency shelter prior to PHV (68%). Four residents were referred from a medical respite housing shelter and three others came from another type of social service housing program.

This group's VI-SPDAT scores were in the range of 11-15; 90% presented with a score over 12, indicating high vulnerability and high need for housing and services. Most residents (90%) self-identified with one or more health or mental health condition and had at least one documented disability (68%). Self-identified concerns include: diabetes, epilepsy seizures, neuropathy, arthritis, high blood pressure, COPD, lupus, cancer, hepatitis C, emphysema, heart issues, and various chronic pains in the body. Mental health concerns include: schizophrenia, bi-polar, depression, anxiety, and other psychosis-related conditions.

Economic Status

The initial period of leasing for 22 residents started in December 2016 and continued through October 2017. At the time of move-in to PHV, 14 residents (64%) did not have any income, 5 residents (23%) were receiving SSDI/SSI benefits, and 3 residents (14%) were earning wages.

After 2 years or more at PHV, more than half of the residents provided monthly rent payments: 15 residents (68%) were receiving SSDI/SSI benefits, 3 residents (14%) were earning wages, and 4 residents (18%) were waiting eligibility determinations regarding assistance to support monthly rent. These determinations are expected after the end of the study period. Rent on PHV units ranged $0-$532, with a median rent cost of $227.00 for a unit.

Occupancy

Occupancy at PHV was planned for homeless individuals with high medical and mental health needs; high utilizers of public services and shelter sites. Furthermore, occupancy of all the units were expected to be leased within a two-week period. However, this did not occur as many units were still under construction when leasing began. Despite many of the PHV units not being ready after the opening of the first building in December 2016, the initial recruitment of PHV residents was done in accordance with the established coordinated entry procedures being used in Pinellas County. Many of the early residents in the finished PHV housing units had the most longstanding and complex socio-behavioral-health needs. However, it became apparent that the individuals with chronic street homelessness who had high VI-SPDAT scores and were initially offered housing to

PHV required more services and resources than what the program could offer. In the beginning phases of leasing PHV units (Wave 1), there was significant turnover in early-leased units with multiple residents moving out of the available units.

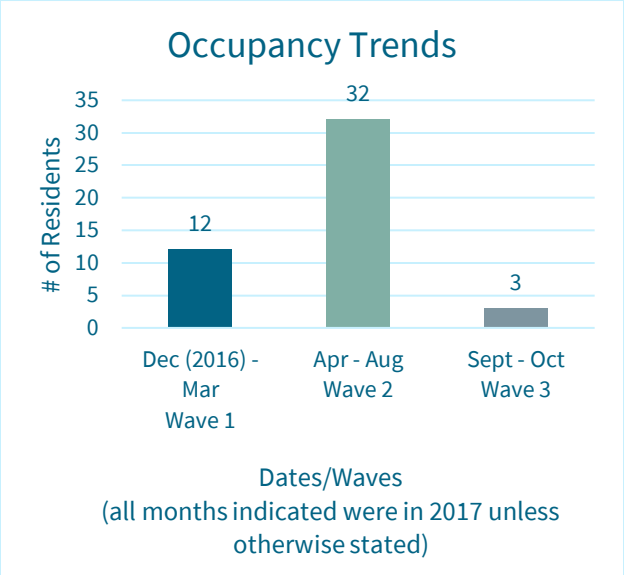

Figure 1: Occupancy Trends

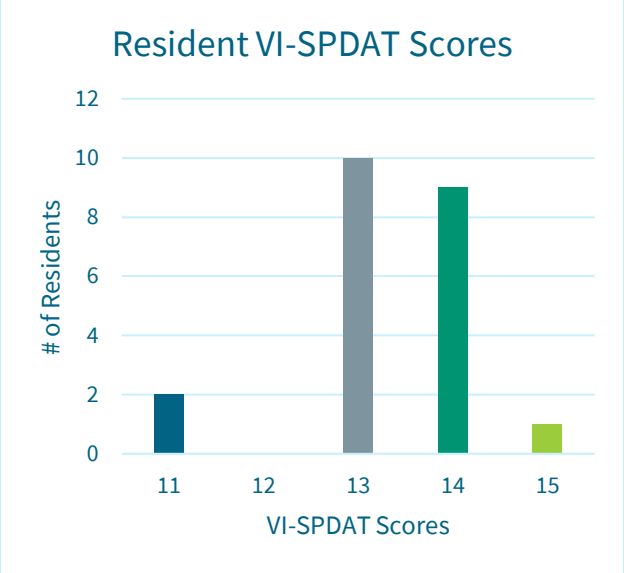

Figure 2. VI-SPDAT Scores for Residents in the Evaluation of PHV

PH leadership successfully lobbied the homeless county offices for modifications to the eligibility requirements of the homeless high-needs individuals considered for PHV after the initial leasing process started. With this accommodation, many individuals who were living in the PH tent shelter met the requirements to be considered for a PHV unit (Wave 2).

The final available units for consideration in this pilot evaluation were leased in late Sept-Oct 2017 (Wave 3). Because of this trend and the data collection period, no additional residents were considered as part of this evaluation after the end of October 2017. As such, there were three waves of occupancy (Figure 1). The total exceeds the number of units due to turnover.

After the modifications to the coordinated entry requirements for PHV residents, a robust number of units were leased in the second wave of occupancy. Many of these residents came from the tent shelter facility.

Figure 2 provides the VI-SPDAT scores for the 22 residents who are included in this final evaluation.

Research Design and Operational Modifications

As PHV began housing residents, modifications to the expected numbers of participants and methodology procedures were necessary following various unanticipated internal staff changes and programmatic shifts at PHV. Concurrently, the resident turnover rate led to a decision by the research and PHV teams to have residents who remained in PHV units

through Oct 31, 2017, continue in the study as the evaluation period progressed.

Therefore, of the original residents who had a unit in PHV, only 22 are included in the final cost-benefit and social-behavioral evaluation; these 22 residents had at least a two-year residence at the site. Furthermore, not all in this small sample completed a socio-behavioral survey at each data point, so the use of statistical analysis tests to determine if changes to survey questions over time represent significant findings is not supported.

Other limitations identified in the first year include the data tools and methods of data collection. Case managers were initially designated as survey administrators, a decision that seemed most feasible given they had regular contact with the residents and familiarity with expected changes in resident circumstances. However, due to the complexity of resident conditions requiring additional treatment time from case managers, data collection shifted to a research team member for the remainder of the evaluation period and supported by periodic help from a PHV case manager.

The initial survey (Pinellas Hope Housing Survey [Appendix A]), while informative, proved to be challenging for many of the residents, who often responded with statements that were known to be untrue by the data collector or suggested being confused with certain questions. Since the validity and reliability of the study data was critical to the research design, it was decided to subsequently use the WHOQOL-BREF tool (Appendix B). (However, potentially due to the complexity of challenges to the residents, data collectors noted similar issues with the WHOQOL-BREF concerning some residents providing information that may not be accurate or a resident being confused by a question.) While these tools contain similar questions, direct comparisons of the responses to the first-year questions and the remaining data points cannot be made. Aggregate responses, though, can be used to indicate resident responses to similar questions to indicate trends over time.

Other resident engagement and data collection efforts could also be challenging. Several small focus groups were attempted during Year 1 to capture impressions and changes over the course of the year, external factors led to these not being held. As PHV programs grew, modifications affected things like availability of space for such a purpose (e.g., conference rooms were repurposed for case manager offices). Despite formal structured focus groups not being feasible given conditions, there were multiple opportunities for informal qualitative data collection which supplemented survey data.

Finally, there was a fiscal-related modification to the PSH program adding a leasing requirement for all residents to either pay rent according to a percentage of their income or have a form of monetary support for their unit. The initial fiscal plan to cover PHV operating costs included community donations and grants to support the housing units and program

services, but over time CC leadership determined these funding sources were either no longer available or applicable to this housing facility and the continued CC internal support determined to be unsustainable.

Comparative Data: Pre and Post Move-in to PHV

Cost–Benefits Data

As noted above, the three research questions that guided this study pertained to public investment in the use of public systems, cost–benefits to providing the PHV program compared to lower levels of coordinated housing or service interventions, and the socio-economic and behavioral outcomes for PHV residents.

To examine the first two research questions, four primary data sources were used to determine costs related to resident well-being, specifically physical health care, mental health care, substance abuse care, jail services, and shelter stays:

1. Medicaid (MED)
2. Florida Department of Children and Families (DCF) systems:
    2.1. Substance Abuse and Mental Health Information System (SAMHIS)
    2.2. Financial and Services Accountability Management System (FASAMS)
3. Pinellas County Criminal Justice Information System (CJIS)
4. Pinellas County Homeless Information Management System (HMIS)

The cost comparisons are between two time periods for residents' occupancy in PHV: two years pre move and two years post move. Appendix C provides a detail of the cost breakdown for the information discussed below. Non-Medicaid/ Department of Children and Families health care costs were not available. Not all the 22 individuals had Medicaid coverage throughout the two time periods, 11 (50%) had coverage prior to move-in and 13 (59%) had coverage post move-in.

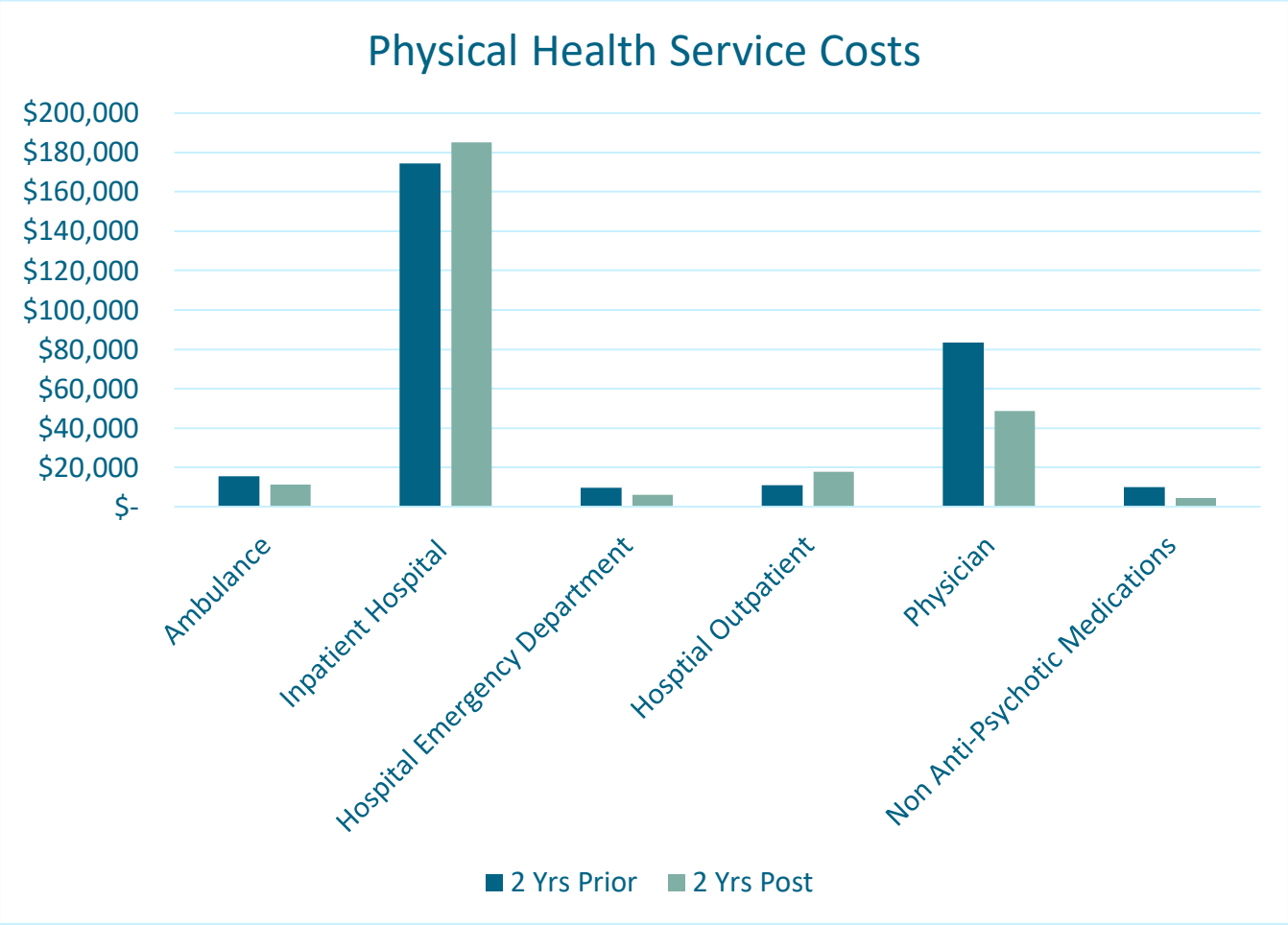

Figure 3: Physical Health Service Costs

Physical Health Care

As demonstrated in Figure 3, there was a two-year total cost savings of $30,167 with costs associated with resident physical care, or 10% savings of public funding after two years of residence in PHV compared with two years prior. Costs for this group indicate a substantial savings of public expenditures. There were decreases in ambulance services (27%; $4,257), hospital emergency department costs (35%; $3,305), physician costs (42%; $34,659), and non-antipsychotic medications (54%; $5,382). Inpatient hospital care increased by 6% over this period likely due to the severity of health issues for some of the residents, and the 62% increase in hospital outpatient expenses reflects better access to appropriate treatment and prevention health care for this group.

To estimate the average annual cost per year, the research team took the two years of total cost data and divided by two. This estimate shows the annual cost of public funding for the 22 residents prior to moving into PHV is $151,853, while the estimate following PHV participation is $136,770. Taken together, this represents an estimated savings of $15,083 annually, or approximately 10% per year.

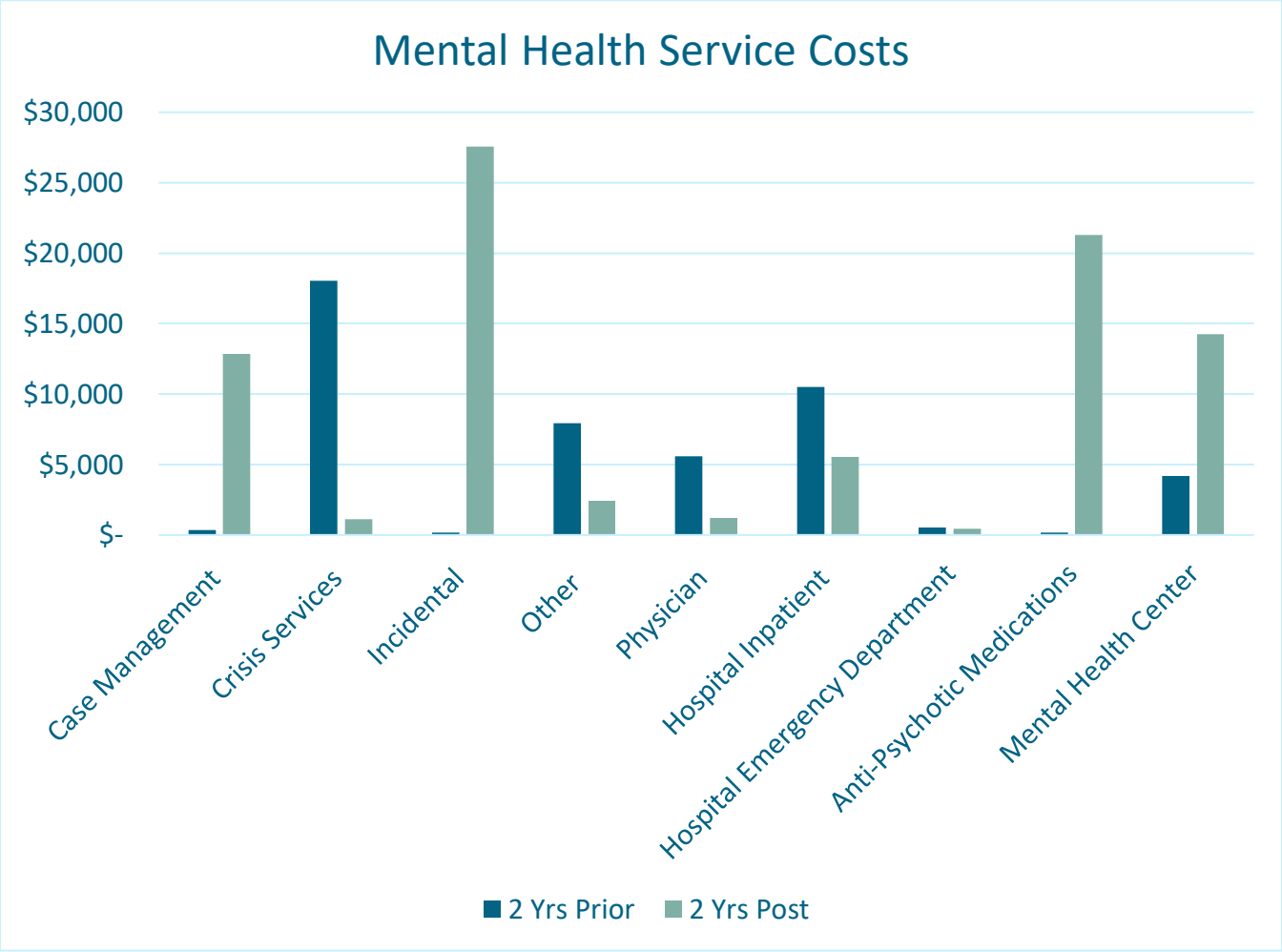

Figure 4: Mental Health Service Costs

Mental Health Care

Using data from the DCF and MED sources, financial information includes local funding that supported PHV onsite mental health services from an outside provider include in the CABHI grant, (Directions for Living, West Care, and Operation PAR). CC case managers assigned to PHV, provide referral and social support services to assist residents toward goals such as obtain documentation to support applications for government benefits, review of life skills to maintain housing, or supportive counseling. For intensive mental health or substance use therapeutic services, PHV case managers referred residents to the CABHI program. Pinellas County CABHI is one of the primary mental health and substance use treatment programs that provided services to PHV residents during the time of this evaluation.

As shown in Figure 4, costs associated with mental health services show an 83% increase ($39,200), reflecting the residents' improved access to and use of case management services, incidental mental health services, and antipsychotic medications due to the complexity of their bio-socio-behavioral conditions. Use of mental health center services also

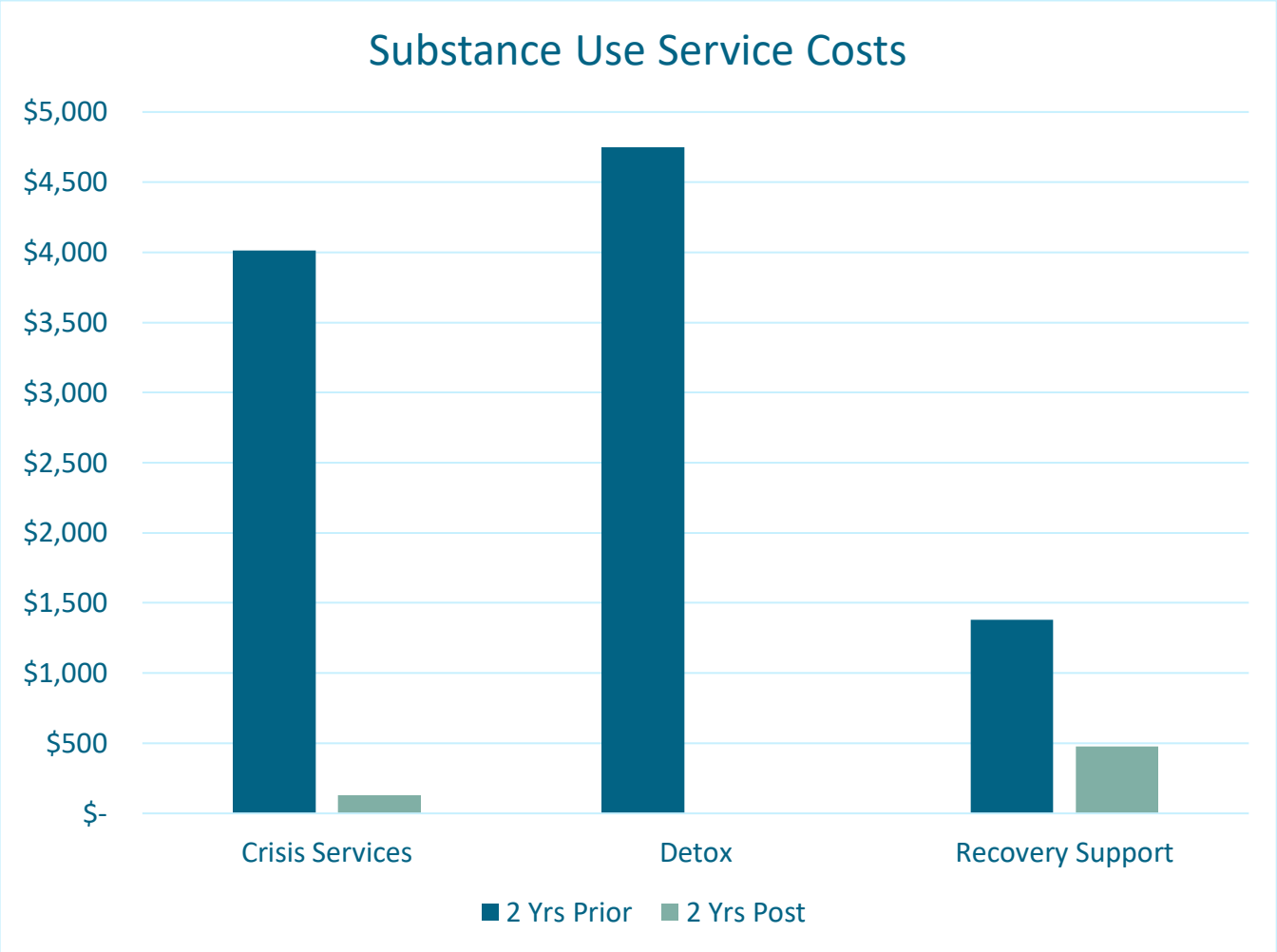

Figure 5: Substance Use Service Costs

increased by 241%. Substantial decreases in use of other mental health services are present as well: Crisis services by 94%, other mental health services by 70%, physician services by 78%, inpatient hospital stays by 47%, and hospital emergency department care by 15%.

It is estimated that the total annual cost of aggregated mental health services prior to moving into PHV for these 22 individuals is $23,736; after residing in PHV the cost is $43,336. This represents an estimated annual increase of 83% ($19,600) of public funds to serve this group. The increase is primarily related to this group receiving community based services and allowable benefits.

Substance Use Service Costs

Substance use care costs identified in DCF data are broken out into three areas: crisis services, detox, and recovery support (Figure 5). For the sample living in PHV for two years or more, there was a 94% total decrease in cost of these services: crisis services (97%), detox (100%), and recovery support (65%). The estimated annual cost prior to moving into PHV is $5,069 while the estimated annual cost after moving into PHV is $303. This represents an

estimated annual savings of 94% of public funds.

Jail Stays

Data from CJIS shows that two years prior to moving into PHV, individuals in this sample group spent a total of 465 days in jail at a cost of $116,250. After two years of living in PHV, those individuals spent 8 days in jail at a cost of $2,000, representing 98% ($114,250) savings to the county (Figure 6).

Figure 6: Jail and Shelter Costs

Total Cost for Services Only

Total public funding that was deployed through diverse services to support the resident sample of 22 chronic, high-needs homeless individuals two years prior to moving into PHV is $477,566. After two years of residence at PHV, this amount decreased by 24% ($114,749). The individual's annual cost per person prior to PHV is $10,854; two years later, the cost is $8,246.

PHV Public Housing Costs

Prior to moving into PHV, residents spent 7,027 days in a homeless shelter at a cost of $111,729 or $2,539 per person per year; once housed in PHV, this public funding cost was eliminated. However, CC received a grant of $2,385 per unit per year to offset expenses related to housing these individuals.

Socio-Economic and Behavioral Outcomes Data

Quality of Life Assessment

During the first year, individuals in the study were administered the long survey (Appendix A) to assess resident social and behavioral attitudes and conditions. This survey provided case managers—the original data collectors—with the opportunity to explore how the residents were adapting to the new community as part of the assessment. Furthermore, the detailed responses were helpful to case managers for identifying resident needs.[3] As interviews continued with residents into the first year, a shorter survey—the modified WHOQOL-BREF (Appendix B) recommended by other scholars in this area—replaced the original survey. Feedback from residents and PHV staff

[3] Due to CC internal demands and emerging procedures developed for the new program services in PHV, the USF research team assisted with resident data collection procedures after approximately 60 days of data collection. USF researchers met educational requirements to ensure human subject protections.

informed the research team that the original, long survey was too time consuming and was collecting redundant information.

The majority of the 22 residents with two or more years at PHV responded to the original survey at three time intervals: start of occupancy (baseline), 6 months, and 12 months. After this period, these residents responded to the modified WHOQOL-BREF survey at 18 months, 24 months, and 30 months.

Three questions in the original survey instrument assessed overall quality of health during the Year 1. These questions asked residents if they are concerned about their health (Q. 2; Figure 7), and how they would describe their health now (Q. 3; Figure 8). The higher the score for these two questions, the more concerns the respondent has. The final question asks how the respondent feels about his/her life now (Q. 32; Figure 9). The higher the score for this question, the more satisfied the respondent is with his/her quality of life.

Concerns about Health

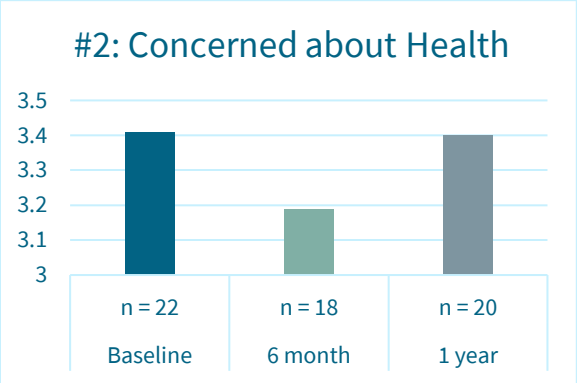

Figure 7: Resident Survey Question 2 /Concerns about Health

Residents were asked how concerned they were about their health over the course of Year 1 (Q. 2; Figure 7). Higher scores, based on a scale of 1 for not at all to 4 for a lot, indicate more concern about their health. At baseline, the residents were generally had some concerns about their health (M = 3.41). Their concerns about their health slightly decreased during the first 6 months towards a little, (M = 3.18), but returned to reflect a continued trend toward having some concerns about their health (M = 3.40). Given the chronic health conditions these residents have, this sustained level of concern over the course of the year suggests that their conditions are not easily resolved, even if there is medical assistance provided.

Self-rating of Health Condition

Residents were asked to compare their health condition over the course of Year 1 (Q. 3; Figure 8). Lower scores, based on a scale of 1 for excellent to 5 for poor, indicate higher self-ratings of health. At baseline, and 6 months, residents responded that their health was trending toward being described as good (M = 2.70; M = 2.80). At 1 year, residents still indicated their health as good, but trending toward very good (M = 2.40). This suggests that resident's perception of their health improved over the course of the year, particularly in the latter half of the year.

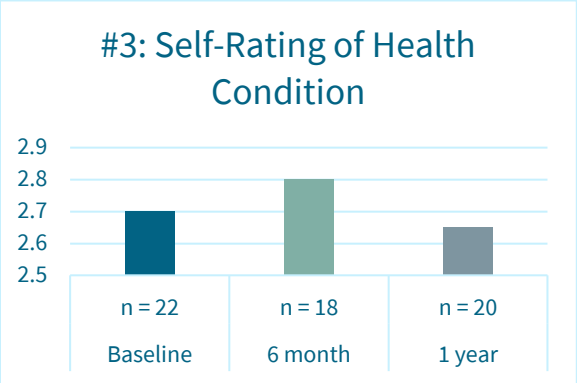

Figure 8: Resident Survey Question 3 /Self-rating of Health Condition

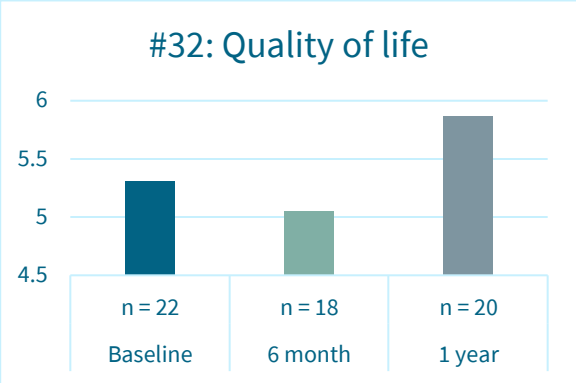

Figure 9: Resident Survey Question 32 /Quality of Life

Feelings about Life Quality

The final question (Q. 32; Figure 9), asked residents about how they feel about their life at this time. Higher scores, based on a scale of 1 for terrible to 7 for delighted, indicate higher resident level of satisfaction with their life. At baseline, the sample indicated that they were mostly satisfied with their life (*M* = 5.31). At 6 months, 18 responding residents continued to describe being mostly satisfied with their life (*M* = 5.01). At 1 year, residents responses increase sharply to indicate that they are almost pleased (the next descriptor) with their life (*M* = 5.90). Aggregate responses suggests that these residents were more than mostly satisfied with their lives at the time of move in to PHV and this sentiment continued over the course of the first year. This suggests that living in at PHV supports individual well-being in this sample.

Perception of Life and Health

After the first year of living at PHV, the residents were asked to complete the modified WHOQOL-BREF at 18, 24 and 30 months. Question 1 asks respondents to rate their quality of life on a scale of 1-5 with higher scores indicating higher quality of life. Question 2 asks respondents to indicate how satisfied they are with their health on a scale of 1-5 with higher scores indicating higher satisfaction with their health.

After 18 months of living at PHV, 20 residents completed the modified WHOQOL-BREF survey (Q1; Figure 10). In response to the quality of life question (Q. 1), as a group, these residents indicated that their life was good (*M* = 3.9) after 18 months of living at PHV. At two years, responses from 18 residents continued to indicate that their life was good (*M* = 4.05). This trend continued at 30 months when 21 out of the 22 residents responded that their life was still good (*M* = 4.1). This sustained trend suggests that residents continued to indicate their quality of life which they rated as good, remained consistent over time while living at PHV.

Feedback regarding how satisfied residents were with their overall quality of health suggest they remained satisfied with their health circumstances. At 18 months, 20 residents indicated leaning towards being more satisfied than neither satisfied or dissatisfied ($M = 3.65$). This was repeated at the Year 2 mark, from the 18 responding residents. At 30 months, responding residents ($n = 21$) note a slight decline in overall health satisfaction ($M = 3.5$). This slight decrease in resident satisfaction with their health over time suggests that residents learned more about their conditions and what indicated better health conditions.

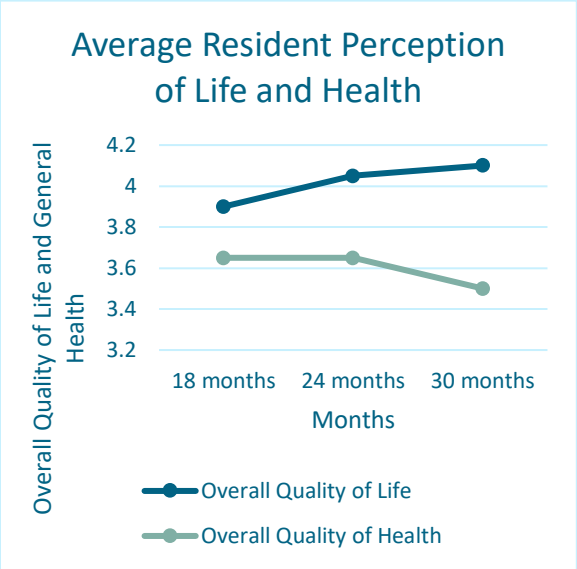

Figure 10: Average Resident Perception of Life and Health

Additional Domain Areas

Grouped questions in the modified WHOQOL-BREF provide additional information in the domain areas of health, social relationships, and physical environment. The responses to these questions are aggregated and then transformed to match a scale of 0–100. Higher scores indicate more favorable opinions. Figure 11 provides responses to the three domains.

Physical Health

As indicated in Figure 11, health burdens continue to remain a source of concern for the residents. At 18 months, 15 residents reported being concerned about their health ($M = 52.8$). At 24 months, 19 residents reported being slightly less concerned about their health ($M = 57.1$), however, at 30 months concerns about their health have slightly increased. ($M = 53.3$) for 21 responding residents.

Social Relationships

Residents satisfaction with social relationships vary, reflecting a drop in satisfaction from 18 months ($n = 15$, $M = 68.2$) to 24 months ($n = 19$, $M = 57$). However, at the 30-month period, 21 residents reported a 12-point increase in this domain ($M = 70.0$).

Physical Living Environment in the PHV Community

Resident satisfaction with the physical living environment in the PHV community clearly was positive. There was a slight decline after more than 2 years of living at PHV. At 30 months, 21 residents were satisfied with their environment ($M = 60.4$). However, at 18 months and 24 months, responding residents were even more satisfied with the community ($n = 15$, $M = 72.0$; $n = 19$, $M = 72.4$).

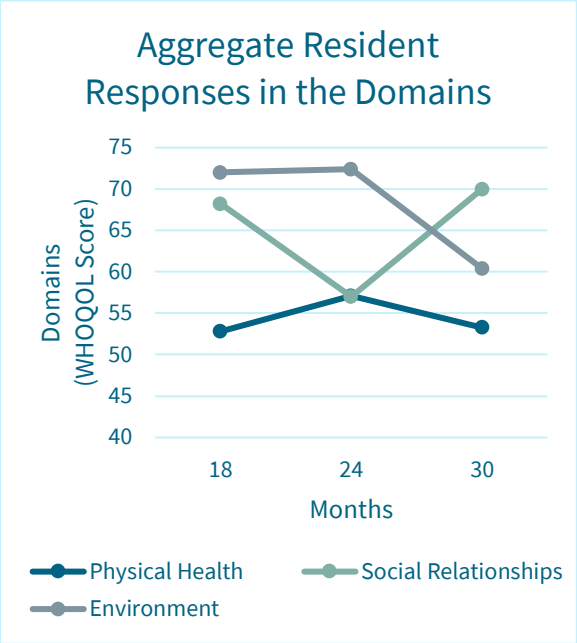

Figure 11: Aggregate Resident Responses in the Domains

PHV Results: Analysis

Cost–Benefits

Service Usage Savings

As the comparison data of housing and support services costs for 22 residents who lived on-site at PHV for two or more years suggest substantial savings of public funds through this PSH program. Two years prior to occupancy, these women and men utilized $589,295 of public funds for various life-sustaining services. After two years of living at PHV and receiving supportive services, this amount decreased to $362,817. These results suggest a 38% savings in service costs per person in the two years after participation in PHV. The annual cost per person two years prior to living in PHV was $13,393; after two years the annual cost decreased to $8,246.

There were expected investment increases in services to assess, stabilize, and foster self-regulation, additional skills, and new opportunities for the men and women, such as with case management, incidental service support items, appropriate medications, and use of mental health centers. Because of the investments in preventative and maintenance supports related to health and well-being, there were substantial decreases in crisis services that typically have much higher financial and community capacity costs, such as the use of ambulances, emergency departments, and substance use emergency responses when circumstances in the individuals' environments can escalate complex medical needs and mental health. Even many interventions that are a step down from crisis response—like physician services, non-antipsychotic medications, inpatient mental health services, and detox assistance—saw decreased use. The most sizeable public funding savings resulted from reduced jail stays, in which there was a 98% difference within this group from pre to post PHV occupancy. And by virtue of PHV being a housing intervention, there was a 100% reduction in shelter cost stays.

Operational Support Cost

The average annual cost to run PHV for the four years of the project was $208,169. This was partially offset by an annual grant of $107,323 from Pinellas County as well as rents paid by the residents and other private funds averaging $17,474 per year. The remaining $83,372 was covered by CC

out of general funds. Housing costs per unit per year pre and post move in are presented in Table 1.

	Pre	*Post*
Shelter Stays (Public)	$2,539	0
PHV Expenses Paid by Rents and Other Private Funds	0	$388
PHV Expenses Covered by Public Grant from Pinellas County	$0	$2,385
PHV Expenses Covered by CC	0	$1,853

Table 1. Housing costs per unit per year pre and post move in.

Overall Cost Benefit

Total costs for the pre move-in period for 22 residents with two years of residency was $589,295 for 2 years. The post move-in services total was $362,817 for the same group. For post housing operations, we have a total of $416,332 for the entire 45 units in PHV for 2 years. Subtracting the annual average of $17,474 in rents paid and other private funds leaves $381,384 for all 45 units and $186,454 for the 22 residents with two years of residency for the 2 years after move in. Altogether, the post move-in total service and housing cost were $549,270, for an overall, documented 2-year savings for the 22 residents of $40,025. From this we get the savings for the 22 participants at $910 per person, per year.

Socio-Economic and Behavioral Outcomes

For over two years, 22 men and women who had previously been existing on the margins of society were able to stabilize, and many thrived, by access to an intervention in which stable housing provided a literal and figurative foundation with case management supports. Now, almost all residents are consistently contributing to their own support through reliable sources of monthly income. Responding residents indicate a high satisfaction with their quality of life. Social relationships and a sense of community have increased over time as well. As PHV occupancy grew and became established, residents were able to become "neighbors," leading to the development of and positive reinforcement of established activities, routines, and social cohesion.

One area in need of persistent concern for residents at PHV is related to health issues and ongoing maintenance medical care. This is not surprising given the seriousness of the conditions—such as diabetes, epilepsy seizures, neuropathy, arthritis, high blood pressure, COPD, lupus, cancer, hepatitis C, emphysema, and heart disease—that many residents have developed from years of exposure to difficult living conditions, lack of

consistent preventative care, and few social and personal supports.

Resident Profiles

To give a better sense of the whole-person benefits of many of the residents pre- and post-PHV residency, below are two individuals' stories.

Mr. Straight

Mr. Straight's struggles began after he experienced a severely traumatic event while working as a maintenance man for an apartment complex. The mental health consequences of the event sparked the use of alcohol and substance abuse as a way of coping with the trauma. After years of hard drug and alcohol use coupled with the harrowing experience of living on the streets, Mr. Straight was referred to the PHV program through the Pinellas County coordinated entry process.

He moved into his own studio apartment in 2017, without income or a subsidized means of paying rent while still battling his substance use. However, after working with staff at PHV, Mr. Straight has made substantial changes in his life. He is now paying rent for his unit and has maintained his sobriety for well over a year. He is on the proper medications, participating in the right community resources, and taking charge over most of his day-to-day life with little assistance. He is an example of how PSH can even help those with some of the most severe behavioral issues.

Mr. Cann

Mr. Cann has a variety of chronic health issue and lacks the ability to read or write at an appropriate grade-level. Because he didn't have health coverage and the ability to secure proper treatment during his time on the streets, Mr. Cann was well-known by ER staff at various local hospitals due to his frequent use of emergency services. Since his residence at PHV, Mr. Cann has secured a source of income and health insurance. This has led to a dramatic improvement upon his health and a decline in the use of ER services. In fact, Mr. Cann has learned how to navigate the web of the healthcare system on his own, despite his learning challenges.

Limitations

While all evaluations have challenges, this study faced several implementation and methodological obstacles. Some of these are stated earlier in this report in the Research Design and Operational Modifications section. The PHV proposed evaluation methodology occurred when homeless housing/shelter programs in Pinellas County were beginning to use a county-wide coordinated entry system to identify those homeless individuals who were high cost utilizers of public services and chronically homeless. While this population was the focus of this evaluation as required by FHFC, the initial interpretation of who and how this population will be identified for residency at PHV was a concern for CC and modified over time. This impacted the proposed

leasing targets in the proposed methodology. Additionally, by the time active leasing started at PHV, there was turnover in PHV leadership and program staff from many of those who shaped the original evaluation strategy and methodology. Finally, several internal CC business and operational processes—such as resident eligibility requirements for PHV, and what services would be offered on-site—were still in progress at the time PHV started to open.

Given the unique setting of this housing program and its limited services, generalizability of the outcomes should proceed with caution. The small sample of residents with two or more years does not offer enough power to use statistical tests to suggest a significant relationship of pre-post measures of well-being. However, the cost-benefits findings do align with the outcomes of other studies (Rine & LaBarre, 2020).

The stability of residents in this housing program may also be attributed to items not captured in this evaluation. These include the duration and frequency of case management meetings, therapeutic relationships and treatment from on-site service providers, improved health and mental health conditions due to other factors not measured systematically, and peer support offered by neighbors in the larger community. Assessing and monitoring health and mental health conditions of the population were not variables of consideration in this evaluation; however, the presence or absence of specific conditions and disease may have influenced the responses of the residents.

Conclusion

Culhane (2008) emphasized that service utilization research was an important area for homeless agencies and policy makers to consider due to the multiple systems in which people experiencing homelessness often enter, exit, and repeat—due to the deficient design of the systems more than the deficits of the individuals. This information, he suggests, can help to create more efficient and cost effective responses to homelessness. Efforts to reduce homelessness and the associated costs began in earnest in the early 2000s (Culhane, 2008). PSH emerged as an evidenced-informed, cost-effective strategy to halt chronic homelessness (Aubry et al., 2020; Livingstone & Herman, 2017; Spector et al., 2020). It uses a wraparound approach that facilitates social services through the stability of an adequate home setting. PSH recognizes that women and men can better reach their full potential, whatever that looks like for each person, in a place they call home; this is more conducive to do the hard work associated with long-standing life developments and accumulated traumas. According to the National Alliance to End Homelessness, “PSH has been shown to lower public costs associated with the use of crisis services such as shelters,

hospitals, jails and prisons."[4] This strategy can take various forms of implementation and intervention, with some operating low-intensity services while others are more demanding.

Despite its uneven start, over time PHV emerged as a stable housing opportunity for many former high-needs, chronically homeless individuals in the Pinellas County area. The accomplishments of this housing program are attributed to many factors, including CC's early financial contributions to sustaining the units and services; county support of the CABHI grant to provide on-site services, particularly intensive therapeutic mental health services for a limited number of PHV residents; and the thoughtful leadership and innovative efforts of the various employees working to staff and oversee the daily operations of PHV.

The outcomes and experiences of PHV residents mirror the robust evidence supporting this PSH strategy (see Dohler et al., 2016) and significant housing and other cost savings are demonstrated through the implementation of PHV in this community. Although appropriate mental health and physical services costs increased, those were more than offset by the decrease in jail, emergency shelters, crisis services, and substance use services costs. Importantly, residents self-reported their improvement in areas of well-being, health, and social supports. In addition, they were satisfied with their living environment.

Recommendations

Below are recommendations based on lessons learned from the PHV experience developed in collaboration by the CC and USF research teams.

- Permanent Supportive Housing programs are viable solutions to stabilize high cost, vulnerable homeless individuals who are experiencing complex medical and mental health needs. This housing program requires a well-trained staff that is skilled and considerate to the residents' complex biopsychosocial experiences.
- Appropriate physical health and mental services are necessary where residents live, including consistent availability of medical health and mental health professionals seven days a week.
- Case management services are crucial to ensuring residents can successfully work toward stability in a housing setting.
- Because some service agencies can offer housing and shelter programs, but not necessarily wraparound service supports, collaborating with health and mental health organizations that have the expertise and capacity to provide

[4]Source: https://endhomelessness.org/ending-homelessness/solutions/permanent-supportive-housing

reliable and sustained on-site services is an optimal solution. These community partnership models are well established across Florida and can be tailored to Pinellas County as needed.

- Due to a grant for seniors living at other PH buildings, a licensed nurse was available part-time on-site for one weekend day. This professional provided education, medication management, and intervened in critical care cases when limited staff was available. From this a key recommendation emerges:
    - It is critical that a licensed nurse or medical professional capable of dealing with medical situations, monitor medications, and educate this high-need group of residents about their conditions and how to engage in healthy living habits, be available at least weekly, preferably on the weekend.
- The housing site should be centrally located or near public transportation that allows for reasonable commutes to medical, social service, shopping, and employment options. Regular participation in these community aspects supports a meaningful experience for residents and reinforces their ability to maintain well-being.
- Because stability and routine are crucial aspects to the success of PSH interventions, limiting the number of units set aside for a population who has high-needs and long-lasting conditions that require daily assistance is key. When a resident decompensates or has opportunities to see or engage in anti-social behaviors, the ramifications impact the entire community; not only at that moment, but for days or weeks to follow.
- Investment in this type of housing program initially requires sizeable funding and other resources on the part of the service agency and the community. As the program matures and scales appropriately over time, the return on investment grows and costs decrease, while residents experience improved social and behavioral outcomes.
- Efforts in Florida must be undertaken to counter stigmatized stories regarding the women and men who participate as residents.
    - When everyone has the ability to reach their unique potential, then the community as a whole is made stronger. The FrameWorks Institute (https://www.frameworksinstitute.org) has evidence-based strategies, resources, and tools to help with crafting effective

communication and engagement approaches for community members, civic leaders, business owners, and more.

- Men and women who have lived many years out on the streets can successfully adapt to living in PSH housing units and meet the terms of their leases. PSH can lower the need for high-cost public expenditure for crisis interventions like emergency medical services and incarceration.
- Individuals who have endured long-standing and complex health and socio-behavioral challenges can adapt to routine living in housing units, enjoy increased social relationships and quality of life the same as other community members, and gain support for self-directed achievements.

References

Aigner, M., Forster-Strffleur, S., Prause, W., Freidl, M., Weiss, M., & Bach, M. (2006). What does the WHOQOL-Bref measure? *Social Psychiatry Psychiatric Epidemiology, 41*, 81-86. doi:10.1007/s00127-005-0997-8

Aubry, T., Bloch, G. Bric, V, Saad, A., Magwood, O., Abdalla, T., Alkhateeb, Q., Xie, E., Mathew, C., Hannigan, T., Costello, C., Thavorn, K., Stergiopoulos,V., Tugwell, P., & Pottie, K. (2020). Effectiveness of permanent supportive housing and income assistance interventions for homeless individuals in high-income countries: A systematic review. *The Lancet Public Health, 5,* 342-360.

Culhane, D. P. (2008). The cost of homelessness: A perspective from the United States. *European Journal of Homelessness*, 2(1), 97-114.

Dohler, E., Bailey, P., Rice, D., & Katch, H. (2016, May 31). Supportive housing helps vulnerable people live and thrive in the community. *Policy Futures.* Center on Budget and Policy Priorities. https://www.cbpp.org/research/housing/supportive-housing-helps-vulnerable-people-live-and-thrive-in-the-community

Livingstone, K. R., & Herman, D. B. (2017). Moving on from permanent supportive housing: Facilitating factors and barriers among people with histories of homelessness. *Families in Society: The Journal of Contemporary Social Services, 98*(2), 103-111. doi: 10.1606/1044-3894.2017.98.15

McLaughlin, T. C. (2011). Using common themes: Cost-effectiveness of permanent supported housing for people with mental illness. *Research on Social Work Practice, 21*(4), 404–411. doi:10.1177/1049731510387307.

Parsell C., Petersen, M. & Culhane, D. (2017). Cost offsets of supportive housing: Evidence for social work. *British Journal of Social Work*, *47*, 1534–1553.doi: 10.1093/bjsw/bcw115.

Rine, C. M., & LaBarre, C. (2020). Research, practice, and policy strategies to end homelessness. *Health & Social Work, 45*(1), 5-8. https://doi.org/ 10.1093/hsw/hlz041

Shinn, G. A., & Tracy, J. W. (2014). The cost of long-term homelessness in Central Florida. Impact Homelessness. https://www.ImpactHomelessness.org

Spector, A. L., Quinn, K. G., McAuliffe, T. L., DiFranceisco, W., Bendizen, A., & Dickson-Gomez, J. (2020). Health-related quality of life and related factors among chronically homeless adults living in different permanent supportive housing models: A cross-sectional study. *Quality of Life Research, 29*, 2052-2061. https ://doi.org/10.1007/s1113 6-020-02482-w

Appendices

Appendix A: Pinellas Hope Housing Survey

Pinellas Hope Housing Survey	Reviewed Dates	

The first part of this survey is about your health and your daily activities. Please try to answer every question as accurately as you can.

1.) How often do you think about your health? Not at all, a little, some, or a lot?

Not at All	A Little	Some	A lot	Refused	Don't Know				
1	2	3	4	8	9				

2.) In general, how concerned are you about your health? Not at all, a little, some, or a lot?

Not at All	A Little	Some	A lot	Refused	Don't Know				
1	2	3	4	8	9				

3.) Would you say your health is excellent, very good, good, fair, or poor?

Excellent	Very Good	Good	Fair	Poor	Refused	Don't Know				
1	2	3	4	5	8	9				

4.) Compared with 12 months (1Wk) ago, would you say your health is better, worse, or about the same? Prompt if necessary: Either say" Compared with last... (say the name of the month we are in now) or say "Compared with last year."

Better	Worse	About the Same	Refused	Don't Know				
1	2	3	8	9				

5.) Do you have any serious medical problems that limit your activities, or worry you a lot, or that you have to take medicine regularly for?

Yes	No	Refused	Don't Know				
1	0 *	8 *	9 *				

*Skip to Question 7

6.) Can you tell me what those medical problems are?

7.) In the past 30 days (1Wk), on how many days did you experience medical problems? Prompt if necessary: "That is, in the past month."

Valid Values	Refused	Don't Know				
0-31	98	99				

8.) In the past 30 days (1Wk), how troubled or bothered have you been by your medical problems? Were you not at all troubled, slightly troubled, moderately, considerably, or extremely troubled by those medical problems? Prompt if necessary: "That is, in the past month."

Not at All	Slightly	Moderately	Considerably	Extremely	Refused	Don't Know				
1	2	3	4	5	8	9				

9.) How important do you think it is that people take special care of their health? Do you think it is very important, moderately important, neutral, slightly important, low importance, or not at all important?

Very Important 1	Moderately Important 2	Neutral 3	Slightly Important 4	Low Importance 5	Not at all Important 6	Refused 8	Don't Know 9				
10.) Do you have difficulty walking or climbing stairs?											
Yes 1	No 0	Refused 8	Don't Know 9								
11.) Do you have difficulty dressing or bathing?											
Yes 1	No 0	Refused 8	Don't Know 9								
12.) Do you have any dental problems that are painful or that interfere with your eating?											
Yes 1	No 0	Refused 8	Don't Know 9								
13.) Have you needed to see a dentist in the last year but were not able to?											
Yes 1	No 0	Refused 8	Don't Know 9								
14.) Overall, how helpful are doctors when you are ill? Are they very helpful, somewhat helpful, somewhat difficult, or very difficult?											
Very Helpful 1	Somewhat Helpful 2	Somewhat Difficult 3	Very Difficult 4	Refused 8	Don't Know 9						
15.) Is there a place that you usually go to when you are sick or need advice about your health? Only read list of responses if necessary.											
Yes	There is no place	There is more than one place	Refused	Don't Know							

1	2*	3*	8*	9*				

* Skip to question 18

16.) What kind of place do you go most often? Do you go to a clinic or health center, doctor's office or HMO, hospital emergency room, hospital outpatient department, or some other place?

Clinic or Health Center 1	Dr's Office or HMO 2	Hospital ER 3	Hospital Outpatient 4	Some other Place 5	Doesn't go to one place to most often 6	Refused 8	Don't Know 9				

17.) How satisfied are you with the medical care you receive there? (Prompt if necessary: Say the place they go most often) Are you very satisfied, somewhat satisfied, not very satisfied, or not at all satisfied with the care you receive?

Very Satisfied 1	Somewhat Satisfied 2	Not Very Satisfied 3	Not at all Satisfied 4	Refused 8	Don't Know 9				

18.) During the past 12 months (1Wk), did you have any trouble finding a general doctor or provider who would see you? Prompt if necessary: Either say: "Since last... (Say the name of the month we are in now) or say "Since last year."

Yes 1	No 0	Refused 8	Don't Know 9				

19.) During the past 12 months (1Wk), how many times have you been hospitalized overnight or longer for a medical problem? Prompt if necessary: Either say: "Since last... (Say the name of the month we are in now) or say "Since last year." If client doesn't know how many prompt with: "Your best guess is fine."

Valid Values 0-365	Refused 998	Don't Know 999				

20.) What medical problems were you hospitalized for?

21.) During the past 12 months (1Wk), how many times have you been hospitalized for any psychological or emotional problems? Prompt if necessary: Either say:" Since last... (Say the name of the month we are in now) or say "Since last year", If client doesn't know how-may prompt with: "Your best guess is fine."						
Valid Values 0-365	Refused 998	Don't Know 999				
22.) What psychological problems were you hospitalized for?						
23.) Do you see anyone on a regular basis for psychological problems? Prompt: Such as a psychiatrist or therapist.						
Yes 1	No 0	Refused 8	Don't Know 9			
24.) During the past 12 months (1Wk), how many times have you gone to an emergency room about your health? This includes emergency room visits that resulted in a hospital admission. Prompt if necessary: Either say: "Since last... (Say the name of the month we are in now) or say "Since last year." If client doesn't know how many prompt with: "Your best guess is fine."						
Valid Values 0-365	Refused 998	Don't Know 999				
25.) What made you go to the emergency room?						

Now I'd like to ask you some questions medication. There is no right or wrong answers; it's just what you think.							
26.) Are you taking any medications right now for medical or psychological problems?							
Yes 1	No 0 *	Refused 8 *	Don't Know 9 *				
* Skip to question 30							
27.) How often do you take your medicine? Do you take it all the time, usually, sometimes, rarely, or almost never?							
All the time 1 *	Usually 2 *	Sometimes 3	Rarely 4	Almost Never 5	Refused 8 *	Don't Know 9 *	
*Skip to question 30							
28.) Why do think you don't take your medicine more regularly? Only read list if necessary. If participants identify multiple reasons, ask them to specify the main reason.							
No Rx 1	Forget 2	Dislike Pills 3	Dislike Injecting 4	Dislike Side Effects 5	I don't feel bad/sick 6	Rx doesn't work 7	Other 8 *	Refused 98	Don't Know 99
*Go to question 29							
29.) Please specify what the other reasons are.							

30.) Suppose your doctor told you to take a certain medicine for your health. How likely is it that you would stop taking the medicine if you felt worse when you took the medicine? Is it very likely, likely, unlikely, or very unlikely?									
Very Likely 1	Likely 2	Unlikely 3	Very Unlikely 4	Refused 8	Don't Know 9				
31.) Suppose someone told you that taking the medicine might be bad for you, even though your doctor prescribed it and told you it was good for you, how likely is it that you would stop taking the medication? Is it very likely, likely, unlikely, or very unlikely?									
Very Likely 1	Likely 2	Unlikely 3	Very Unlikely 4	Refused 8	Don't Know 9				
The next section asks about ways you might have felt or behaved.									
32.) How do you feel about your life overall right now? Do you feel terrible, unhappy, dissatisfied, mixed, mostly satisfied, pleased, or delighted?									
Terrible 1	Unhappy 2	Dissatisfied 3	Mixed 4	Mostly Satisfied 5	Pleased 6	Delighted 7	Refused 8	Don't Know 9	
33.) In the past month (1Wk), how often have you felt nervous, tense, worried, frustrated, or afraid? Not at all, once during the month, several times during the month, several times a week, or at least every day?									
Not at all 1	Once during the month 2	Several times during the month 3	Several times a week 4	At least every day 5	Refused 8	Don't Know 9			
34.) In the past month (1Wk), how often have you felt depressed or sad? Read list if necessary: Not at all, once during the month, several times during the month, several times a week, or at least every day.									

Not at all 1	Once during the month 2	Several times during the month 3	Several times a week 4	At least every day 5	Refused 8	Don't Know 9				
35.) In the past month (1Wk), how often have you felt lonely? Read list if necessary: Not at all, once during the month, several times during the month, several times a week, or at least every day.										
Not at all 1	Once during the month 2	Several times during the month 3	Several times a week 4	At least every day 5	Refused 8	Don't Know 9				
36.) In the past month (1Wk), how often did you feel suspicious or paranoid? Read list if necessary: Not at all, once during the month, several times during the month, several times a week, or at least every day.										
Not at all 1	Once during the month 2	Several times during the month 3	Several times a week 4	At least every day 5	Refused 8	Don't Know 9				
37.) In the past month (1Wk), how often have other people TOLD you that you were acting suspicious or paranoid? Read list if necessary: Not at all, once during the month, several times during the month, several times a week, or at least every day.										
Not at all 1	Once during the month 2	Several times during the month 3	Several times a week 4	At least every day 5	Refused 8	Don't Know 9				
38.) In the past month (1Wk), how often did you hear voices, or hear or see things, that other people didn't think were there? Read list if necessary: Not at all, once during the month, several times during the month, several times a week, or at least every day.										
Not at all 1	Once during the month 2	Several times during the month 3	Several times a week 4	At least every day 5	Refused 8	Don't Know 9				

39.) In the past month (1Wk), how often did you feel that your behavior or actions were strange or different from that of other people? Read list if necessary: Not at all, once during the month, several times during the month, several times a week, or at least every day.										
Not at all 1	Once during the month 2	Several times during the month 3	Several times a week 4	At least every day 5	Refused 8	Don't Know 9				
40.) In the past month (1Wk), how often did you have trouble making up your mind about something, like deciding where you wanted to go or what you wanted to do, or how to solve a problem? Read list if necessary: Not at all, once during the month, several times during the month, several times a week, or at least every day.										
Not at all 1	Once during the month 2	Several times during the month 3	Several times a week 4	At least every day 5	Refused 8	Don't Know 9				
41.) In the past month (1Wk), how often did you feel out of place or like you did not fit in? Read list if necessary: Not at all, once during the month, several times during the month, several times a week, or at least every day.										
Not at all 1	Once during the month 2	Several times during the month 3	Several times a week 4	At least every day 5	Refused 8	Don't Know 9				
42.) In the past month (1Wk), how often did you forget important things? Read list if necessary: Not at all, once during the month, several times during the month, several times a week, or at least every day.										
Not at all 1	Once during the month 2	Several times during the month 3	Several times a week 4	At least every day 5	Refused 8	Don't Know 9				
The next questions ask about your experience with the police and with jail or prison.										
43.) How many times have you been arrested (1Wk)?										

Valid Values 0-300*	Refused 998 *	Don't Know 999 *				
*if 0,refused or don't know skip to question 50						
44.) How many of these arrests resulted in convictions (1Wk)?						
Valid Values 0-300	Refused 998	Don't Know 999				
45.) How many weeks or months or days were you incarcerated (in jail or in prison) in your life?						
Valid Values 0-300 *	Refused 998 **	Don't Know 999 **				
*If 0, skip to question 50 ** Skip to question 47						
46.) Enter "days" "weeks" or "months" for time ever incarcerated						
Days D	Weeks W	Months M				
47.) In the last year how many weeks or months or days were you incarcerated?						
Valid Values 0-300 *	Refused 998 **	Don't Know 999 **				
*If 0 skip to question 50 **Skip to question 49						
48.) Enter "days" "weeks" or "months" for time incarcerated in the last year						
Days D	Weeks W	Months M				
49.) Are you currently on probation or parole?						

Probation	Parole	Neither	Refused	Don't Know				
1	2	3	8	9				

The questions that follow are about your use of alcohol and other drugs. Your answers will be kept private. Tell me the response that best fits for you.

50.) Are you a current smoker, former smoker, or never smoked?

Current Smoker	Former Smoker	Never Smoked	Refused	Don't Know				
1	2 *	3 *	8 *	9 *				

*Skip to question 52

51.) How many packs do you smoke a week? Do you smoke less than one, one, two, three, or more than three?

Less than 1	One	Two	Three	< Three	Refused	Don't Know				
0	1	2	3	4	9	9				

52.) In the last year has there been a period in which you used alcohol regularly to get high or feel the effects? Prompt if necessary: Since last… (say the name of the month we are in now).

Yes	No	Refused	Don't Know				
1	0	8	9				

53.) In the last year has there been a period in which you used marijuana regularly to get high or feel the effects? Prompt if necessary: Since last... (say the name of the month we are in now).

Yes	No	Refused	Don't Know				
1	0	8	9				

54.) In the last year (1Wk) has there been a period in which you regularly used any other drugs to get high or feel the effects? Prompt if necessary: Since last... (say the name of the month we are in now). These drugs might include: heroin, morphine, methadone, barbiturates, valium, Xanax, Quaaludes, cocaine, amphetamines, hallucinogens, or codeine.

Yes	No	Refused	Don't Know				

1	0	8	9				

55.) Have you been treated for drug or alcohol use (1Wk)? Prompt: This includes A.A., N.A., hospitalizations, seeing a provider regularly.

Yes	No	Refused	Don't Know				
1	0	8	9				

56.) Can you tell me about the treatment you got? Prompt: Where or for how long etc.

57.) In the past 30 days (1Wk), how troubled or bothered have you been by your use of alcohol? Have you been not at all troubled, slightly troubled, moderately, considerably, or extremely troubled by your alcohol use? Prompt if necessary: "That is, in the past month."

Not at all	Slightly	Moderately	Considerably	Extremely	Refused	Don't Know				
1 *	1	3	4	5	8	9				

*Skip to question 59

58.) How important to you now is treatment for your alcohol use? Is treatment not at all important, slightly important, moderately, considerably, or extremely important?

Not at all	Slightly	Moderately	Considerably	Extremely	Refused	Don't Know				
1	1	3	4	5	8	9				

59.) In the past 30 days (1Wk), how troubled or bothered have you been by your use of drugs? Have you been not at all troubled, slightly troubled, moderately, considerably, or extremely troubled by your use of drugs? Prompt if necessary: "That is, in the past month."

Not at All 1 *	Slightly 2	Moderately 3	Considerably 4	Extremely 5	Refused 8	Don't Know 9				
*Skip to question 60										
60.) How important to you now is treatment for your drug use? Is treatment not at all important, slightly important, moderately, considerably, or extremely important?										
Not at All 1	Slightly 2	Moderately 3	Considerably 4	Extremely 5	Refused 8	Don't Know 9				
61.) When was the last time you used your drug of choice? Record free text response										
Now I'd like to ask you how much you agree or disagree with the following statements.										
62.) My life is organized. Do you strongly agree, agree, unsure, disagree, or strongly disagree?										
Strongly Agree 1	Agree 2	Unsure 3	Disagree 4	Strongly Disagree 5	Refused 8	Don't Know 9				
63.) My life is unstable. Do you strongly agree, agree, unsure, disagree, or strongly disagree?										
Strongly Agree 1	Agree 2	Unsure 3	Disagree 4	Strongly Disagree 5	Refused 8	Don't Know 9				
64.) Keeping a schedule is difficult for me. Do you strongly agree, agree, unsure, disagree, or strongly disagree.										
Strongly Agree	Agree	Unsure	Disagree	Strongly Disagree	Refused	Don't Know				

1	2	3	4	5	8	9				

Next, I'd like to ask you about your living arrangements.

65.) Think now about the 30 days before you moved into your current housing (if not housed think about the past 30 days (1Wk)). Where did you usually stay? Prompt if necessary: "That is, in the past month."

Non-Housing (Street, Park, Car) 1	Emergency (Homeless) Shelter 2	Transitional Housing 3	Psychiatric Facility 4	Motel/Hotel 5	Rental Housing 6	Substance Abuse Tx Facility 7				
Hospital 8	Prison/ Jail 9	Dom. Viol. Shelter 10	Friends/ Family 11	Own Apartment/House 12	Other 13	Refused 98	Don't Know 99			

66.) Now think about where you stayed in the past year. In what kind of place did you sleep most often?

Non-Housing (Street, Park, Car) 1	Emergency (Homeless) Shelter 2	Transitional Housing 3	Psychiatric Facility 4	Motel/Hotel 5	Rental Housing 6	Substance Abuse Tx Facility 7				
Hospital 8	Prison/ Jail 9	Dom. Viol. Shelter 10	Friends/ Family 11	Own Apartment/House 12	Other 13	Refused 98	Don't Know 99			

67.) In your entire life, how many months or years did you live on the street or in an emergency shelter?

Valid Values 0-300			Refused 998			Don't Know 999				

68.) Enter "Months" or "Years" lived on street Months M Years Y									
Months M	Years Y								

69.) How comfortable were you living on the street or in a shelter? Were you very comfortable, a little comfortable, a little uncomfortable, or very uncomfortable?									
Very Comfortable 1	A Little Comfortable 2	A Little Uncomfortable 3	Very Uncomfortable 4	Refused 8	Don't Know 9				

70.) When was the last time you had a place of your own such as a house, apartment, room, or other housing for 30 days or more in the same place? Was it days ago, weeks ago, months ago, or years ago? Prompt if necessary: "That is, for a month or more."									
Days Ago 1	Weeks Ago 2	Months Ago 3	Years Ago 4	Never 5	Refused 8	Don't Know 9			

71.) Have you ever lived in foster care?							
Yes 1	No 0	Refused 8	Don't Know 9				

The following questions have to do with the support you get from people in your life. Please tell me how many people would be available to provide that kind of support if you needed it.

72.) How many people can you really count on to care about you, regardless of what is happening to you?						
Valid Values 0-30	Refused 98	Don't Know 99				

73.) How many people can actually make you feel better when you're feeling depressed or down in the dumps?

Valid Values	Refused	Don't Know				
0-30	98	99				

74.) How many people can you really count on to give you specific help when you need it, like lending you some money, helping you get to the doctor, or letting you stay overnight on their couch?

Valid Values	Refused	Don't Know				
0-30	98	99				

Now I would like to know about the services you have needed or used in the past twelve months.

75.) In the last 12 months (1Wk), have you met with any social workers or case managers? Prompt if necessary: Either say "Since last... (Say the name of the month we are in now) or say "Since last year."

Yes	No	Refused	Don't Know				
1	0 *	8 *	9 *				

*Skip to question 78

76.) Why did you meet with them?

77.) How helpful would you say they were? Were they very helpful, somewhat helpful, or not at all helpful?

Very Helpful	Somewhat Helpful	Not at All Helpful	Refused	Don't Know				
1	2	3	8	9				

78.) How were they helpful? Prompt if necessary What did they help you with? Did they refer you to programs; did they sign you up for benefits?

The next questions ask for some basic information about you.

85.) What are your sources of money?						
86.) Over the last 30 days (1Wk), what was your total cash income from all sources?						
Valid Values 0-2000	Refused 9998	Don't Know 9999				
87.) Additional Notes						

Appendix B: WHOQOL-BREF-Modified

Unit _____ Date _____

Directions: Please read each question, assess your feelings, and circle the response that gives the best answer for you for each question.

1. How would you rate your quality of life?	Very Poor	Poor	Neither Poor nor Good	Good	Very Good
2. How satisfied are you with your health?	Very Dissatisfied	Dissatisfied	Neither satisfied nor dissatisfied	Satisfied	Very satisfied
3. To what extent do you feel that physical pain prevents you from doing what you need to do?	Not at all	A little	A moderate amount	Very much	An extreme amount
4. How much do you need any medical treatment to function in your daily life?	Not at all	A little	A moderate amount	Very much	An extreme amount
5. How much do you enjoy life?	Not at all	A little	A moderate amount	Very much	An extreme amount
6. To what extent do you feel your life to be meaningful?	Not at all	A little	A moderate amount	Very much	An extreme amount
7. How well are you able to concentrate?	Not at all	A little	A moderate amount	Very much	Extremely
8. How safe do you feel in your daily life?	Not at all	A little	A moderate amount	Very much	Extremely
9. How healthy is your physical environment?	Not at all	Slightly	A moderate amount	Very much	Extremely
10. Do you have enough energy for everyday life?	Not at all	A little	Moderately	Mostly	Completely
11. Have you enough money to meet your needs?	Not at all	A little	Moderately	Mostly	Completely
12. How available to you is the information that you need in your day-to-day life?	Not at all	A little	Moderately	Mostly	Completely
13. To what extent do you have the opportunity for leisure activities?	Not at all	A little	Moderately	Mostly	Completely

14. How well are you able to get around?	Not at all	A little	Moderately	Mostly	Completely
15. How satisfied are you with your sleep?	Very dissatisfied	Dissatisfied	Neither satisfied nor dissatisfied	Satisfied	Very satisfied
16. How satisfied are you with your ability to perform your daily living activities?	Very dissatisfied	Dissatisfied	Neither satisfied nor dissatisfied	Satisfied	Very satisfied
17. How satisfied are you with your capacity for work?	Very dissatisfied	Dissatisfied	Neither satisfied nor dissatisfied	Satisfied	Very satisfied
18. How satisfied are you with your personal relationships?	Very dissatisfied	Dissatisfied	Neither satisfied nor dissatisfied	Satisfied	Very satisfied
19. How satisfied are you with the support you get from your friends?	Very dissatisfied	Dissatisfied	Neither satisfied nor dissatisfied	Satisfied	Very satisfied
20. How satisfied are you with the conditions of your living place?	Very dissatisfied	Dissatisfied	Neither satisfied nor dissatisfied	Satisfied	Very satisfied
21. How satisfied are you with your access to health services?	Very dissatisfied	Dissatisfied	Neither satisfied nor dissatisfied	Satisfied	Very satisfied
22. How often do you have negative feelings, such as blue mood, despair, anxiety, depression?	Never	Seldom	Quite often	Very often	Always

Appendix C: Prior-Post Costs Excluding PHV Operating Costs

N = 22 residents with at least 2 years of residency

Source	Physical Health	2 Yrs Prior	2 Yrs Post	Difference	% Difference
MED	Ambulance	$15,626.82	$11,370.30	$(4,256.52)	-27%
MED	Inpatient Hospital	$ 174,442.75	$185,077.71	$10,634.96	6%
MED	Hospital Emergency Department	$9,503.82	$6,198.49	$(3,305.33)	-35%
MED	Hospital Outpatient	$10,902.00	$17,702.00	$6,800.00	62%
MED	Physician	$83,326.73	$48,668.16	$(34,658.57)	-42%
MED	Non Antipsychotic Medications	$9,904.25	$4,522.53	$(5,381.72)	-54%
	Total- Physical Health	$303,706.37	$273,539.19	$(30,167.18)	-10%
Source	Mental Health	2 Yrs Prior	2 Yrs Post	Difference	% Difference
DCF	Mental Health- Case Management	$365.42	$12,837.94	$12,472.52	3413%
DCF	Mental Health- Crisis Services	$18,057.00	$1,112.48	$(16,944.52)	-94%
DCF	Mental Health- Incidental	$153.82	$27,566.88	$27,413.06	17822%
DCF	Mental Health- Other	$7,941.16	$2,408.98	$(5,532.18)	-70%
MED	Physician	$5,583.82	$1,224.50	$(4,359.32)	-78%
MED	Hospital Inpatient	$10,500.00	$5,542.00	$(4,958.00)	-47%
MED	Hospital Outpatient	$ -	$ -	$ -	
MED	Hospital Emergency Department	$536.18	$457.51	$(78.67)	-15%
MED	Antipsychotic Medications	$160.86	$21,285.58	$21,124.72	13132%
MED	Mental Health Center	$4,173.96	$14,236.45	$10,062.49	241%
	Total Mental Health	$47,472.21	$86,672.32	$39,200.11	83%
Source	Substance Use	2 Yrs Prior	2 Yrs Post	Difference	% Difference
DCF	Substance Use-Crisis Services	$4,011.66	$128.03	$(3,883.64)	-97%
DCF	Substance Use-Detox	$4,747.24	$ -	$(4,747.24)	-100%
DCF	Substance Use Recovery Support	$1,378.56	$477.85	$(900.71)	-65%
	Total Substance Use	$10,137.46	$605.88	$(9,531.59)	-94%
Source	Other Costs	2 Yrs Prior	2 Yrs Post	Difference	% Difference
CJIS	Jail Stays	$ 116,250.00	$2,000.00	$ (114,250.00)	-98%
		465 days	8 days		

Total Cost for Services (Does not include shelter stays)	$ 477,566.04	$ 362,817.38	$ (114,748.66)	-24%
Shelter Stays	$111,729.30 7027 days	$ - 0 days	$ (111,729.30)	-100%
Total Costs with Shelter Stays	$589,295.34	$362,817.38	$ (226,477.96)	-38%
Two Year Cost Per Person	$26,786.15	$16,491.70	$(10,294.45)	-38%
Annual Cost Per Person	$13,393.08	$8,245.85	$(5,147.23)	-38%
Projected Annual Cost for 45 Units	$ 602,688.42	$371,063.23	$ (231,625.19)	-38%