THE SOLUTION THAT SAVES
TWO YEAR EVALUATION-FINAL REPORT

ABILITY HOUSING

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VILLAGE ON WILEY

INTRODUCTION

Assisting people who experience homelessness and have chronic health conditions to lead stable lives in the community can be challenging due to the complexity of their underlying conditions and disorders. It is believed that Permanent Supportive Housing (PSH) – affordable housing linked with support services – can help these individuals become productive members of their communities and provide substantial cost savings to publicly funded systems of care.

There is a large body of evidence that supports the premise that PSH can help individuals become productive members of their communities while also providing substantial cost savings to publicly funded systems of care. Several studies have been conducted nationally with similar populations, but currently there is no Florida specific information addressing some of these critical questions. This lack of information strongly supports that more research is needed that can be used by policy makers to guide the allocation of resources to PSH.

Ability Housing was the recipient of a special appropriation of funding in 2013 through the Florida Housing Finance Corporation to fund one of three pilot sites to demonstrate the effectiveness of providing PSH to high utilizers of crisis services who were unstably housed or experiencing homelessness.

Many persons with chronic health conditions that are homeless or at risk of homelessness are caught in a recurrent cycle of costly institutionalization in psychiatric hospitals and facilities, jails and prisons, and living on the streets or in homeless shelters. The Solution That Saves is a pilot project to determine the cost benefit of providing PSH to these high utilizers of crisis services.

The pilot consists of 92 units of PSH targeted to low-income persons that are homeless or unstably housed and identified as high-utilizers of crisis services. The housing is a combination of 49 units scattered throughout the community and a 43-unit multifamily project on Jacksonville's Westside. The site-based housing is targeted to those participants identified as desiring and benefitting from a more communal environment with onsite peer supports.

The service model adopted by Ability Housing for the state pilot is a client-centered, community-based model that focuses on assessing needs, referring to services, assisting with access to services and coordinating and monitoring on-going treatment. The comprehensive supportive services included: case management; certified peer support counseling; substance abuse services; SSI/SSDI Outreach, Access, and Recovery (SOAR) case management; Medicaid and Medicare enrollment; transportation services; access to employment services; and enrollment into primary care and specialty healthcare services.

It is important to note that 77 of the original 92 individuals enrolled in the study and placed in PSH were still living in housing at the end of the two-year study. This represents a housing stability rate of 87.5%. Deceased individuals (three) and those for whom no information was available (one) were not counted in determining the housing stability rate.

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The intended goal for this study is to contribute to the literature and evidence-based initiatives regarding PSH's cost-effectiveness and impact on ending homelessness and reducing individuals' use of emergency public services. The evaluation is strategically important in providing evidence about supportive housing's impact on avoidable emergency assistance, individual and institutional costs, and other state funded costs, thereby helping give important support for public investment in supportive housing in a time of budgetary challenges.

While the cost benefit analysis represents the core research aim in this project, demographic and service usage data were also collected. Additionally, perceived quality of life was assessed using the Ferrans and Powers Generic Quality of Life Survey. Mental wellness was measured using the Mini-International Neuro- psychiatric Interview (M.I.N.I. 6.0). The VI-SPDAT tool was used to assess vulnerability status. These data will also be analyzed to determine whether there are factors or combinations of factors that can provide a potentially accurate prediction of the success of participants in PSH.

KEY FINDINGS

The Solutions That Saves program provided Permanent Supportive Housing (PSH) to members of the homeless community. The evaluation focused on 68 participants who remained enrolled in the study for a minimum of two years. The evaluation findings compared two time periods: the two years before moving into PSH (pre-), and the first two years after moving in to PSH (post-). Quality of life and mental wellness were assessed to determine change in stability. Cost benefit analyses were completed to determine change in healthcare and community service costs. Key outcomes by evaluation question are listed below:

Participant Characteristics

1. What are the characteristics of the individuals being served by The Solution That Saves?	✓ 66 of the 68 participants (97%) had one or more documented disabilities. ✓ Slightly more were female (55.4%), African American (55.4%) and between the ages of 50 and 64 (50%).

Mental Wellness

2. Does participation in The Solution That Saves improve participants overall mental/emotional health status?	✓ 30.9% decrease in Suicidality.[i] ✓ 20.0% decrease in Agoraphobia. ✓ 19.9% decrease in Drug Abuse/Dependence.

Quality of Life[ii]

3. Does participation in The Solution That Saves improve participants' overall quality of life?	✓ 15.1% improvement perceived overall quality of life.
4. Does participation in The Solution That Saves increase participants' satisfaction with quality of life in the following domains? a. Health b. Psychological/spiritual c. Socioeconomic d. Family	✓ 25.8% increase perceived in health. ✓ Number of participants with health insurance increased from 36 before housing to 54 during housing. ✓ 20.7% increase perceived in psychological/spiritual quality of life. ✓ 6.85% increase perceived in socioeconomic quality of life. ✓ 20.8% increase in perceived family quality of life. ✓ Number of participants with some income increased from 53 before housing to 67 during housing. [iii] ✓ Average monthly income increased from $367 before housing to $611 during housing.[iv]

Cost-Benefit Analysis

5. Does participation in The Solution That Saves impact participants' utilization patterns and the associated costs of:		Net Change (Post Costs – Pre Costs)
a. Hospital emergency department, in-patient hospital and outpatient services	✔ 57.6% decrease in hospital costs overall. [v] ✔ 43.4% decrease in ER service costs ✔ 58.5% decrease in inpatient service costs ✔ 63.9% decrease in outpatient service costs	-$3,717,382 *Decrease in Costs*
b. In-patient mental health crisis services	✔ Number of participants decreased from 26 before housing to 19 during housing. ✔ 66.1% decrease in MHRC costs for participants.	-$101,398 *Decrease in Costs*
c. Substance recovery services	✔ Number of participants rose from 13 before housing to 30 during housing. ✔ 133.8% increase in costs for participants.	+$27,651 *Increase in Costs*
d. State funded behavioral health services	✔ Number of participants rose from 34 before housing to 47 during housing.	+$74,377 *Increase in Costs*
e. FQHC medical services	✔ Number of participants decreased from 40 before housing to 35 during housing. ✔ 37.3% decrease in costs for participants	-$18,228 *Decrease in Costs*
f. Medicaid Funded Services	✔ Medicaid payments increased overall	+$355,309+ Increase in Cost
g. Arrests and incarceration in jail	✔ Number of participants arrested decreased from 31 before housing to 19 after housing. ✔ Number of days in jail decreased from 2,053 before housing to 570 after housing. ✔ 69.7% decrease in arrest and jail costs for participants. [vi]	-$137,793 *Decrease in Costs*
h. Fire and rescue transportation	✔ Number of participants needing emergency transport services from Jacksonville Fire and Rescue (JFRD) decreased from 113 before housing to 86 during housing. ✔ 21.8% decrease in JFRD costs for participants. [vii]	-$16,635 *Decrease in Costs*
i. Associated HMIS homeless services	✔ Greatest decreases were in day shelter use (86.1%) and night shelter use (98.7%); combined a $50,698 reduction in costs. [viii] ✔ Greatest increase was in Case Management Costs (1,359%) a $198,918 increase in costs. The total number case management hours increased from 418 before housing to 6,102 after housing.	+$159,727 *Increase in Costs*
Housing Subsidy for 68 participants (24-month period)		+$1,124,800 *Increase in Costs*

EVALUATION METHODOLGY

To test for these effects and to assess cost-effectiveness, the evaluation design is a single-group pre/post intervention with placement into Permanent Supportive Housing (PSH) as the intervention. Evaluation compared data collected over two time periods: the two years before moving into PSH (pre-), and the first two years in housing (post-). Quality of life and mental wellness were assessed to determine change in stability, and the cost benefit analysis was completed to determine change in hospital and community service costs.

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In addressing the stated project goals discussed above, The Solution That Saves used the overarching theoretical foundations of Communities of Practice,

Empowerment outcomes (van Daele, van Audenhove, Hermans, van den Bergh, and van den Broucke, 2014) and Community Based Participatory Evaluation (CBPE) based on the Community Based Participatory Research model (Faridi, Grunbaum, Gray, Franks & Simoes, 2007; Israel, Eng, Schultz,& Parker,2005; Minkler & Wallerstein, 2008; Wallerstein& Duran, 2006). The CBPE model uses a distributive leadership design that provides best practice research, methodological criteria, and assessments to compare the latest local data and programming to national models to guide program design, implementation, refinement, and expansion. CBPE was used in all phases of evaluation with stakeholders active in the entire process. These stakeholders played a major role in the decision-making process of affirming and determining project outcomes and assessment tools. Research has shown that the CBPE model compliments the traditional outcome-based model by strengthening its effectiveness and the impact.

Evaluation Questions

The study questions examined are listed in the table below. The data used to examine these evaluation questions were provided to the evaluation team by staff from Ability Housing. Sources of data included assessment instruments collected from participants by program staff and contracted third parties; program documents; administrative data shared by hospitals; a Federally Qualified Health Center serving the homeless; publicly-funded behavioral health service providers; arrest, booking and jail records from Jacksonville Sheriff's Office; emergency service transport records from the Jacksonville Fire and Rescue Department; the Homeless Information Management System; Agency for Health Care Administration; the regional managing entity for state behavioral health funding; and the Florida Department of Children and Families.

Research Questions and Outcome Measures

Participant Demographics	
Study Question	**Data Sources & Outcome Measures**
1. What are the characteristics of the individuals being served by The Solution That Saves?	**Homeless Information Management System.** Measures: Age, race, ethnicity, education level. Analysis: descriptive. The Solution That Saves administrative data. Measures: Move-in date and housing status were used to identify the two-year period before housing and the two-year period in housing for each participant.

Mental Wellness	
Study Question	**Data Sources, Outcome Measures, & Statistical Test**
2. Does participation in The Solution That Saves improve participants overall mental/emotional health status?	**Mini-International Neuropsychiatric Interview.** Measures: groups score at pre- and post- for Major Depressive Episodes; Suicidality; (Hypo)manic episodes (5 subcategories); Panic Disorder; Agoraphobia; Social Phobia; Obsessive Compulsive disorder; Posttraumatic Stress Disorder; Alcohol dependence / Abuse; Drug Dependence / Abuse; Psychotic Disorders; Anorexia Nervosa; Bulimia Nervosa; Generalized Anxiety Disorder; and Antisocial Personality Disorder. Analysis: Comparison of means at pre-/post-; Related-Samples Wilcoxon Signed Rank Test.

Quality of Life

Study Question	Data Sources, Outcome Measures, & Statistical Test
3. Does participation in The Solution That Saves improve participants' overall quality of life? 4. Does participation in The Solution that Saves increase participants' satisfaction with quality of life in the following domains? e. Health f. Psychological/spiritual g. Socioeconomic h. Family	**Ferrans and Powers Quality of Life Index.** Measures: (3.) Overall Quality of Life Scale Scores; (4a.) Health Quality of Life Scale Scores; (4b.) Psychological/Spiritual Quality of Life Scale Scores; (4c.) Socioeconomic Quality of Life Scale Scores; (4d.) Family Quality of Life Scale Scores. Analysis: Comparison of means at pre-/post-; Related-Samples Wilcoxon Signed Rank Test.
	(4a.) **Homeless Information Management System.** Measure: Dichotomous insurance status (has insurance/does not have insurance). Analysis: Comparison of means at pre-/post-; Related-Samples McNemar Test.
	(4c.) **Homeless Information Management System**. Measure: Income. Analysis: Comparison of means at pre-/post-; Related-Samples Wilcoxon Signed Rank Test.

Cost-Benefit Analysis

5. Does participation in the pilot impact participants' utilization patterns and the associated costs of:

a. Hospital emergency department, in-patient hospital and outpatient services	**Hospital Administrative Data** (Baptist, Memorial, St. Vincent's, and UF. Measures: Cost for emergency room visits, outpatient visits, and in-hospital stays; date of service. Analysis: Related-Samples Wilcoxon Signed Rank Test.
b. In-patient mental health crisis services	**Mental Health Resource Center.** Measures: Total costs, service units, date of service, types of services (e.g. room and board, psychiatric evaluation, medication). Analysis: Related-Samples Wilcoxon Signed Rank Test.
c. Substance recovery services	**Gateway Community Center.** Measures: Cost for services, date of service. Analysis: Related-Samples Wilcoxon Signed Rank Test.

Cost-Benefit Analysis	
5. Does participation in The Solution That Saves impact participants' utilization patterns and the associated costs of:	
d. State funded behavioral health services	**Lutheran Services Florida/Department of Children and Families** Measures: Total costs, service units, date of service, type of service (e.g. room and board, psychiatric and substance use evaluation, medication). Analysis: Related-Samples Wilcoxon Signed Rank Test.
e. FQHC medical services	**Sulzbacher Clinic** Measures: Total costs, service units, date of service for 15 categorized types of services (Office visits, psychiatric evaluation and follow-up, counseling, new patient visits, labs, eye examinations). Analysis: Related-Samples Wilcoxon Signed Rank Test.
f. Medicaid Funded Services	**Agency for Health Care Administration** Measures: Total costs, service units, date of service for 15 categorized types of services (Adult Dental Services; Assistive Care Services; Case Management; Community Mental Health Services; Family Planning Service; Home Health Services; Hospital Inpatient Services; Hospital Insurance Benefits; Hospital Outpatient; Lab & X-Ray; Other Services; Patient Transportation; Physician Services; Prescribed Medicine; Skilled Nursing Care) Analysis: Related-Samples Wilcoxon Signed Rank Test.
g. Arrests and incarceration in jail	**Jacksonville Sheriff's Office** Measures: Costs for Arrest and Booking; Costs for Jail Length of Stay (Days in Jail); Analysis: Related-Samples Wilcoxon Signed Rank Test.
h. Fire and rescue transportation	**Jacksonville Fire and Rescue Department** Measures: Costs associated with emergency care and transport; date of service. Analysis: Related-Samples Wilcoxon Signed Rank Test.

Cost-Benefit Analysis	
5. Does participation in The Solution That Saves impact participants' utilization patterns and the associated costs of:	
i. Associated HMIS homeless services	**Homeless Information Management System (HMIS)** Measures: a) Demographic data; income and income sources; insurance and insurers; disabling conditions; current and prior zip codes; education level; and housing status. b) Cost data: date of service, number of units, and unit costs for bus passes, food, meals, housing stability supplies, including emergency supplies and furniture, rental assistance; rental deposits; utilities; case management; employment services; counseling services; other costs. Analysis: Related-Samples Wilcoxon Signed Rank Test.
Housing subsidy data	**The Solution That Saves administrative data** Measures: Total costs of housing subsidies for 68 participants over 24 months. Analysis: Descriptive comparison

Data Collection and Analysis

The **Vulnerability Index and Service Prioritization Decision Assistance Tool (VI-SPDAT)** was the initial pre-screening tool for assessment and prioritization for all intakes done through the Coordinated Intake & Assessment system. The **Northeast Florida Coordinated Intake & Assessment** system was created through collaborative efforts from Changing Homelessness, Continuum of Care member agency representatives, and other members of the community. The VI-SPDAT is a first-of-its-kind "super tool" designed to fill this need. It combines the SPDAT, developed by Iain De Jong of OrgCode Consulting, with the 100,000 Homes Campaign's widely used Vulnerability Index. It is a practical, evidence-based way to satisfy federal regulations while quickly implementing a commonsense approach to access and assessment. The VI-SPDAT was developed for use on a national level and has been field tested with over 10,000 unique individuals in over 100 communities across North America and in select locations around the world. The VI-SPDAT was also used to examine change in vulnerability in study participants.

The **Homeless Management Information System (HMIS)** is an electronic database of information on the characteristics and service needs of people experiencing homeless in the U.S. The HMIS was developed in the 1990s in response to a mandate by Congress requiring states to

collect data in order to receive funds from the U.S. Department of Housing and Urban Development (HUD). All individuals whose information is entered into the HMIS are assigned a unique identifier, and this identifier is used throughout the project to align data. All other specific identifiers have been removed for the evaluator team. Staff from The Solution That Saves provided data from HMIS to the evaluation team.

The study uses demographic and homeless services cost data collected through the HMIS. Demographic data fields in the HMIS include: gender, date of birth, race, ethnicity, family composition, veteran status, income, income sources, non-cash benefits, veteran status, disabling condition, current and prior zip code, education level, and housing status. Income and insurance data are used to examine change in income and insurance status for the study population. HMIS Cost data includes dates of service, number of units and unit costs for bus passes (and other non-emergency transportation services), food (groceries), meals (shelter, community kitchens), housing stability (supplies, emergency supplies, furniture), rental assistance and deposits, utilities, case management, employment services, counseling services, as well as other costs. These data are entered directly to HMIS by the organizations that provide the services. These data are used to examine the impact of Permanent Supportive Housing on utilization and costs associated with homeless services.

The **Ferrans and Powers Quality of Life Index** measures the participant's satisfaction and value of importance with more than 30 specific life issues and then clusters these issues into four subject headings plus an overall rating. The four subject headings are Health & Functioning, Socioeconomics, Psychology & Spirituality, and Family. Each subject area and the overall rating are based on 30 possible points: the closer to 30 the rating, the more satisfied the participant is in that area of life. The Related-Samples Wilcoxon Signed Rank test was used to determine statistical significance of data collected using this instrument.

The **Mini-International Neuropsychiatric Interview (M.I.N.I. 6.0)** was developed in 1990 by psychiatrists – Sheehan, and clinicians in the United States and Europe. The M.I.N.I. is a short, structured diagnostic interview for DSM-5 and ICD-10 psychiatric disorders and is the structured psychiatric interview of choice for psychiatric evaluation and outcome tracking in clinical psychopharmacology trials and in epidemiological studies. The M.I.N.I. is the most widely used psychiatric structured diagnostic interview instrument in the world, employed by mental health professionals and health organizations in more than 100 countries.

The instrument assesses 15 categories (Major Depressive Episodes; Suicidality; (Hypo)manic episodes (5 subcategories); Panic Disorder; Agoraphobia; Social Phobia; Obsessive Compulsive disorder; Posttraumatic Stress Disorder; Alcohol dependence / Abuse; Drug Dependence / Abuse; Psychotic Disorders; Anorexia Nervosa; Bulimia Nervosa; Generalized Anxiety Disorder; and Antisocial Personality Disorder), that contain from one to 10 sub items each. An update of the content on the M.I.N.I. survey occurred between the pre- and post-assessments, resulting in different measurement for some of the items. The evaluation team reviewed these changes and was able to match the items on the pre-

assessment with their equivalent on the post-assessment. "Current" status was chosen over "past" status items to be included in the evaluation analysis to reduce confusion over time periods. Main modules within the M.I.N.I. and the items aggregated within each are listed in the following table:

Table 1. Components Used in Evaluation of M.I.N.I. assessments

Module	Module components from pre-assessment	Module components from post-assessment
Major Depressive Episodes	• Major Depressive Disorder-Current	• Major Depressive Disorder-Current
Suicidality	• Suicidality-Current	• Suicidality-Current
(Hypo)manic episodes	• Manic Episode-Current • Hypomanic Episode-Current • Bipolar I Disorder-Current • Bipolar II Disorder-Current • Bipolar Disorder NOS-Current	• Manic Episode-Current • Hypomanic Episode-Current • Bipolar I Disorder-Current • Bipolar II Disorder-Current • Other Specified Bipolar and Related Disorder-Current
Panic Disorder	• Panic Disorder-Current	• Panic Disorder-Current
Agoraphobia	• Agoraphobia-Current	• Agoraphobia-Current
Social Phobia	• Social Phobia (Social Anxiety Disorder)	• Social Anxiety Disorder (Social Phobia)-Current
Obsessive Compulsive Disorder	• Obsessive-Compulsive Disorder-Current	• Obsessive-Compulsive Disorder-Current
Posttraumatic Stress Disorder	• Posttraumatic Stress Disorder-Current	• Posttraumatic Stress Disorder-Current
Alcohol Dependence / Abuse	• Alcohol Dependence-Current • Alcohol Abuse-Current	• Alcohol Use Disorder-Past 12 Months
Drug Dependence / Abuse	• Substance Dependence – Current (Any of: Stimulants / Cocaine / Narcotics Hallucinogens / Dissociative Drugs / Inhalants / Cannabis / Tranquilizers / Miscellaneous) • Substance Abuse-Current (Any of: Stimulants / **Cocaine** / Narcotics / Hallucinogens / Dissociative Drugs / Inhalants / Cannabis / Tranquilizers / Miscellaneous)	• Substance Use Disorder (Any of: Stimulants / Cocaine / Opiates / Hallucinogens / Dissociative Drugs / Inhalants / Cannabis / Sedatives / Miscellaneous)

Psychotic Disorders	• Psychotic Disorders-Current • Mood Disorder with Psychotic Features-Current	• Any Psychotic Disorder-Current • Major Depressive Disorder with Psychotic Features-Current
Anorexia Nervosa	• Anorexia Nervosa-Current	• Anorexia Nervosa-Current
Bulimia Nervosa	• Bulimia Nervosa-Current • Anorexia Nervosa, Binge eating/purging type-Current	• Bulimia Nervosa-Current • Binge Eating Disorder-Current
Generalized Anxiety Disorder	• Generalized Anxiety Disorder-Current	• Generalized Anxiety Disorder-Current
Antisocial Personality Disorder.	• Antisocial Personality Disorder-Lifetime	• Antisocial Personality Disorder-Lifetime

Sub items on the M.I.N.I. are scored either "Does not meet requirements," "Meets Requirements," or "Not Explored, N/A, Cancelled, or Unsure." For purposes of this study, a category was deemed by the evaluation team to "meet requirements" when one or more of its sub items were scored as "meets requirements." The Related-Samples McNemar test was used to determine statistical significance of data collected using this instrument.

Individuals with previous experience delivering social services to persons experiencing homelessness were contracted by Ability Housing to administer both instruments through individual interviews with study participants immediately after being placed in housing, and then again in 2018, after at least two years in housing.

Data for visits to **hospitals** was provided under HIPAA-compliant data sharing agreements with Baptist Health, Memorial Hospital, St. Vincent's Healthcare, and UF Health-Jacksonville. Separate consents to share data were signed by participants for each hospital from which they had received services over the study period. The data from these hospitals included date of service, service type (emergency room visit, outpatient visit, in-patient visit), and length of stay.

Data from the Sulzbacher Center – a **Federally Qualified Health Center** – was provided under a HIPAA-compliant data sharing agreement with Ability Housing. Data were obtained for only those participants who had signed consent to share their health information. Data included date of service, service type, and cost of service.

Data from **behavioral health services other than hospitals** was provided by Mental Health Resource Center (MHRC) and Gateway Community Center (Gateway) under a HIPAA-compliant data sharing agreement with Ability Housing. Data were obtained for only those participants who had signed consent to share their health information. The data provided by MHRC includes date of service, service type, and cost of service. Gateway's data also included date of service and cost of service,

but type of service was not included.

Data for **state funded mental health and substance abuse services** were received from both the Florida Department of Children and Families, Substance Abuse and Mental Health office and from LSF Health Systems, one of seven behavioral health Managing Entities (ME) contracted by the Florida Department of Children and Families to manage the state-funded system of behavioral health care for people who face poverty and are without insurance. The data were then unduplicated by matching identification, date and service in both data sets. If an entry was found to have all three of these matching elements, it was deemed duplicative and was eliminated from one of the data sets.

Jacksonville Sheriff's Office data comes from public arrest and jail records and was collected by staff from the Jacksonville Sheriff's Office and delivered to Ability Housing. Data include dates admitted and released from jail, length of stay (number of days in jail), the charge/statute under which arrest with description (reason for arrest).

The **Jacksonville Fire and Rescue Department** provided data under a HIPAA-compliant data sharing agreement with Ability Housing. Data were obtained for only those participants who had signed consent to share their health information. This data included date of service, level of service and amount billed.

Medicaid payment data come from the State of Florida **Agency for Health Care Administration (AHCA)** under a HIPAA-compliant data sharing agreement with Ability Housing. Data were obtained for only those participants who had signed consent to share their health information. Data used in this study included the claim identifier for each encounter, date of service, category of service, payment contract type, and two types of payments: amounts the HMO paid to the providers on a fee-for-service basis (HMO-paid) and amounts paid to subcontractors of the HMO (contracted). Categories for the various service types are: Adult Dental Services; Assistive Care Services; Case Management; Community Mental Health Services; Family Planning Service; Home Health Services; Hospital Inpatient Services; Hospital Insurance Benefits; Hospital Outpatient; Lab and X-ray; Other Services; Patient Transportation; Physician Services; Prescribed Medicine; Skilled Nursing Care; and Other. The "Other" category contained services for which usage was lower: Adult Visual Services; Brain & Spinal Cord Injury; Case Management-Adult M; Child Dental; Clinic Services; Cystic Fibrosis; HCB-Aging; HCB-Aids; Nurse Practitioner Service; Other Practitioner; Physical Therapy Service; Physician Assistant Service; and Rural Health Clinics. Service types indicating a crossover in payment between Medicaid and Medicare were included under their respective Medicaid-only category.

This study was reviewed and approved by the Institutional Review Board (IRB) by Jacksonville University in Jacksonville, FL. Identical procedures were used to examine change in income, health care access, housing stability, quality of life and change in hospital and community service costs for the entire study population and then a smaller study population of participants who have resided at Village on Wiley, the property financed by funding from the Florida Housing Finance Corporation that was the impetus for this study (see Appendix A). Tests for

statistical significance were nonparametric: Related-Samples Wilcoxon Signed Rank for ordinal and scale data and Related-Samples McNemar to examine nominal and dichotomous data. The confidence interval for tests for statistical significance was .95.

Working individually with each source of data, formulas were created in MS Excel that were used to compare each individual service with the initial move-in date of the participant receiving the service. These formulas automatically assigned services to one of three categories:

1. service was completed during the two years prior to the initial move-in date;
2. service was completed during two years after the initial move-in date; or
3. service was not completed during either time period.

Thus assigned, the data were then imported into SPSS to be tested for statistical significance.

The pictures and participant stories shown herein are provided by Ability Housing staff to provide context to the data and are not included as part of this analysis.

Limitations

For some participants the span of time between end of 2nd year housing and the time QOL and M.I.N.I. interviews were completed was not immediate. For the QOL interview, 15 participants were interviewed more than one year after the end of their first two years in housing and 28 were interviewed between 6 months and 12 months after the end of their first two years in housing. For the M.I.N.I, 12 were interviewed more than one year after the end of their first two years in housing, and 25 were interviewed between 6 months and a year after the end of their first two years in housing.

HMIS data is entered voluntarily by participating organizations; not all data was provided as some organizations do not enter all services provided on a consistent manner (e.g. units but not costs, etc.).

The costs of services prior to entry into housing from many of the participating organizations could not be equalized because the data provided did not contain all of the elements required to equalize those costs with current costs. This may result in: 1) costs benefits results being reported that are lower than they are; 2) potential for missing pre-costs due to transient population; and 3) impact of any data from missing sources (e.g. providers not participating in the study, etc.).

Lukisha's Story

Life was anything but stable for Lukisha. A child of divorce and subject to abuse, she experienced foster care, group homes, psychiatric hospitals and juvenile detention centers. At 15 she acquired her GED and began to live on her own, traveling from place to place on tractor trailers, finally landing in Ft. Lauderdale where she got married, went to school at Concorde, and received her certification as a medical student. Throughout this time, she struggled with addiction and periods of homelessness. She and her husband moved to Jacksonville to try and get clean, but the grips of addiction followed, and so did repeated job loss and evictions.

Rock bottom came for Lukisha when she was arrested for drug use. In jail, she enrolled in the matrix program – a behavior modification program. After being released, she again jumped from shelter to shelter, sleeping in abandoned buildings and under overpasses on nights when there was nowhere to go. In 2014, she went to Quest, the Coordinated Entry System for Jacksonville, and one year later, she received the call from Ability Housing that she now had a place of her own.

Today, Lukisha is sober. She says having a place to call home propelled her journey of recovery. She's in school for her degree in psychology with the goal to help other people experiencing homelessness find their way to a better life. Last year, she was able to host her family in her home for Christmas for the very first time. Lukisha is thriving, breaking a family cycle of addiction and providing hope for everyone she meets.

"I like the stability in my life now. I'm focused on living, not just existing," said Lukisha

FINDINGS

All Participants in the Study

Program staff used the Northeast Florida Continuum of Care Coordinated Intake and Assessment process to identify and recruit study participants. After this initial screening process, another screening was completed using a High Utilizer screening tool developed specifically to identify eligible participants. The study population for this two-year report consists of the 68 study participants who were in PSH at least 24 months and who provided consent documents for each agency from which data were requested.

Characteristics: Demographics

The 68 study participants ranged in age from 20 to 62 years at the time they entered the project.

A slight majority (54.4%) of these participants self-identified as African American. Of the 68 participants, only one self-identified as Hispanic/Latino; all the others identified as non-Hispanic/Latino. Thirty-seven participants (54%) identified as female. One self-identified as LGBT female.

About 37% of participants had earned a traditional high school diploma or a GED; 27.3% finished 8th grade or started (but did not finish) high school; and 7.4% had some college education.

Further, HMIS records showed disabilities for all but two participants. These disabilities included intellectual, physical, and psychiatric diagnosis.

The table below summarizes demographic characteristics of the two-year study group.

Table 2. Demographic Characteristics of Participants at Initial Placement in Housing and Study Group After Two Years in Housing

Variable	At Time of Placement in Housing		After Two Years in Housing	
	n	%	n	%
Total Count of Participants	92		68	
Gender				
Female	51	55.4%	37	54%
Male	40	43.5%	30	44%
LGBTQ+	1	1.1%	1	2%
Race				
African-American/Black	48	52.2%	37	54%
Caucasian/White	44	47.8%	31	46%
Ethnicity				
Non-Hispanic/Latino	91	98.9%	67	98%
Hispanic/Latino	1	1.1%	1	2%

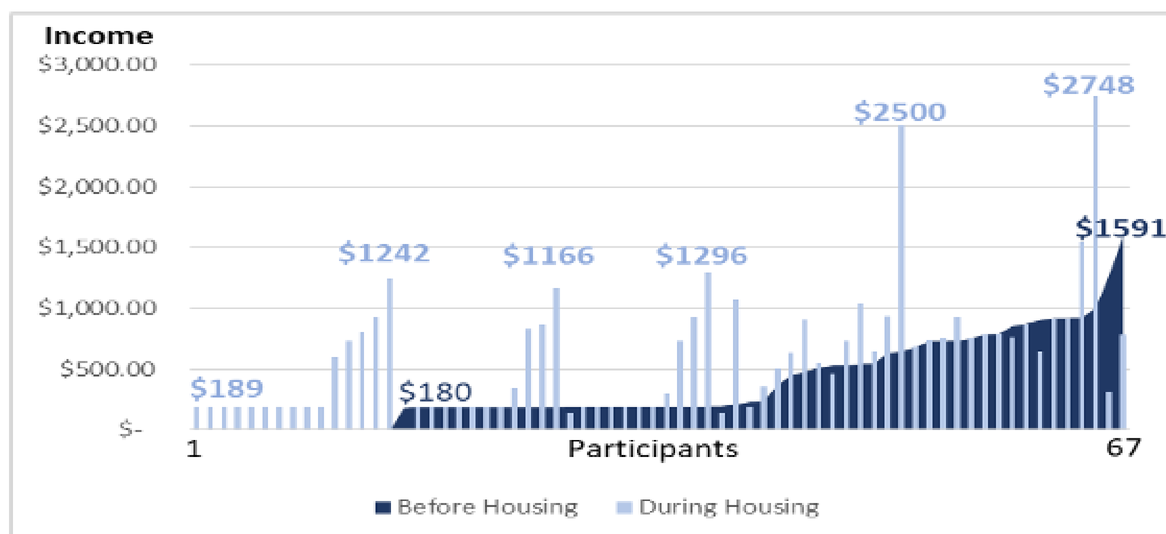
Age				
20-39	25	27.2%	18	26%
40-49	32	34.8%	16	24%
50-64	35	38.0%	34	50%

Level of Education				
Up to 12th Grade	24	36.1%	18	27%
High School Diploma or GED	34	37.0%	25	38%
Some College	5	5.4%	5	8%
No information	26	28.3%	20	30%
Disability				
Yes	90	97.8%	66	97%
No	2	2.2%	2	3%

Characteristics: Socioeconomic

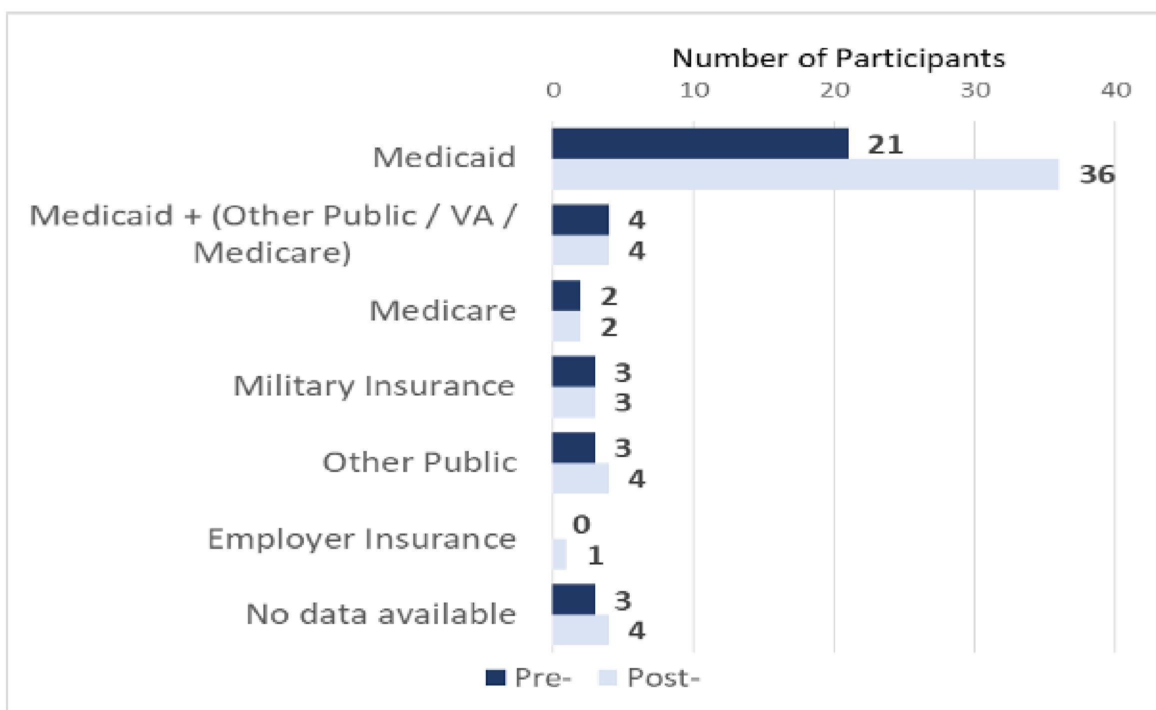
Income. Moving into Permanent Supportive Housing provided opportunities for increased income. On average, participants experienced a **$244 increase in income** after moving into housing.[ix] This represents a 66.4% average increase in income for the group. The average monthly income before moving into housing was $367, ranging from no income (n=15, 22.1%) to $1,591. The average monthly income during housing was $611, ranging from $140 to $2,748. Income increased for 46 (68.7%) of the participants, including 11 (16.4%) with increases between $500 and $999, and 4 (6.0%) with increases of over $1,000. Nine participants (13.4%) experienced decreases in income, ranging from $37 to $963). Figure 3 below compares individual incomes before and during moving into housing.

Figure 1. Change in Income



Health Insurance. Moving into Permanent Supportive Housing provided access to insurance. Prior to moving into housing, **32 participants (47.1%) did not have health insurance**. During housing, the number of participants without insurance decreased to 14 (20.6%). This represents a 56.3% improvement in participants with health insurance.[x] Access to Medicaid was responsible for this improvement, with HMIS data showing 21 participants (30.9%) having Medicaid at the time they entered housing and 36 participants (52.9%) during housing. Use of other types of insurance by 12 participants remained fairly constant across both periods. The table below details participant's access to health insurance.

Figure 2. Change in Insurance by Type of Insurance



VULNERABILITY, QUALITY OF LIFE AND MENTAL WELLNESS ASSESSMENTS

Vulnerability Assessment

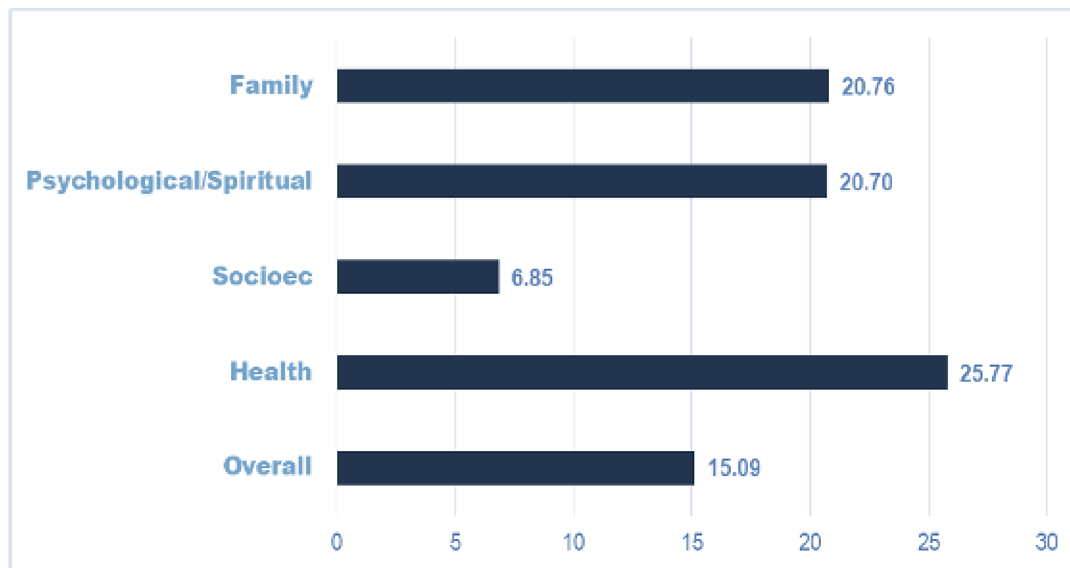
The Vulnerability Index and Service Prioritization Decision Assistance Tool (VI-SPDAT) has been adopted as the pre-screening tool for initial assessment and prioritization for all intakes done through the Coordinated Intake & Assessment system.

Scores were available for 54 of the 68 study participants prior to moving into housing and for 28 participants after remaining in housing for 24 months. Before moving into housing, the average score was 13, ranging from 7 to 18. After housing, the average decreased to 3, ranging from 1 to 7.[xi]

The Ferrans and Powers Quality of Life Index (QLI) can be self-administered or administered in an interview setting. The QLI measures both satisfaction regarding various aspects of life. Importance ratings are used to weight satisfaction responses, so that scores reflect satisfaction with the aspects of life that is valued by the individual. The QLI produces five scores: quality of life overall and in four domains; health and functioning, social and economic domain, psychological/spiritual domain, and family. For this study all surveys were administered through an individual interview. A rating of zero can indicate a total lack of satisfaction or can indicate a lack of responses leading to a divisor of zero.

The percent change to the mean of those scores shows a general improvement in perceptions of quality of life, although the individual responses were mixed.

Figure 3. Percent of Change in Average Quality of Life



At least one aspect of quality of life increased for 77.3% of the participants. Concurrently, 22.7% of participants showed no change or decreases in perceived quality of life that occurred after moving into permanent supportive housing.

Results from the **Mini-International Neuropsychiatric Interview (M.I.N.I. 6.0)** came from 62 participants on or near date of moving into (pre-assessment) Permanent Supportive Housing, and then again to 57 participants during December 2017 through June 2018 (post-assessment).

Statistical analysis of the M.I.N.I. data revealed:

- Current Suicidality within the participant population decrease 30.9%, from 33 out of 61 (54.1%) participants meeting the criterial for Suicidality on the pre-assessment compared to 13 of 56 (23.2%) at post-assessment.[xii]
- A 20.0% decrease was seen for Current Agoraphobia, with 22 of 61 (36.1%) meeting that criteria at pre-assessment compared to 9 of 56 (16.1%) at post-assessment.[xiii]
- The participant population experienced an increase of 52.5% in those that met the requirements of current (Hypo) manic episodes, with 5 out of 61 (8.2%) at pre-assessment and 34 out of 56 at post-assessment.[xiv]
- While not a statistically significant change, the percentage of participants who met the requirement for Drug Dependence / Abuse (DD/A) decreased an impressive 19.9%, from 53.8% (21 out of 39 assessed for DD/A) to 33.9% (19 out of 56 assessed).
- Small, non-statistically significant decreases occurred for Antisocial Personality Disorder (6.6%), Social Phobia (5.5%), Major Depressive Episodes (4.9%), and Psychotic Disorders (3.3%).
- Small, non-statistically significant increases occurred for Bulimia Nervosa (8.9%), Posttraumatic Stress Disorder (7.0%), Generalized Anxiety Disorder (6.7%), Alcohol Dependence / Abuse (3.8%), Anorexia Nervosa (1.8%) and Obsessive-Compulsive Disorder (1.8%). These changes may be related to residents settling into permanent housing and now having the ability to better address their mental/emotional issues.

The table below compares the percentages of participants who met the requirements for each category plus the percent of change from before housing to during housing.

Table 3. Change in Mental Wellness

Modalities	Pre-Assessment			Post-Assessment			Change in Counts (T2-T1)	Change in Percent
	Assessed	Meets Requirements		Assessed	Meets Requirements			
Suicidality	61	33	54.1%	56	13	23.2%	-20	-30.9%
Agoraphobia	61	22	36.1%	56	9	16.1%	-13	-20.0%
Drug Dependence / Abuse	39	21	53.8%	56	19	33.9%	-2	-19.9%
Antisocial Personality Disorder.	61	16	26.2%	56	11	19.6%	-5	-6.6%
Social Phobia	61	11	18.0%	56	7	12.5%	-4	-5.5%
Major Depressive Episodes	61	3	4.9%	56	0	0.0%	-3	-4.9%
Psychotic Disorders	61	2	3.3%	56	0	0.0%	-2	-3.3%
Panic Disorder	61	11	18.0%	56	11	19.6%	0	1.6%
Obsessive Compulsive disorder	61	12	19.7%	56	12	21.4%	0	1.8%
Anorexia Nervosa	16	0	0.0%	56	1	1.8%	1	1.8%
Alcohol dependence / Abuse	61	14	23.0%	56	15	26.8%	1	3.8%
Generalized Anxiety Disorder	61	9	14.8%	56	12	21.4%	3	6.7%
Posttraumatic Stress Disorder	61	11	18.0%	56	14	25.0%	3	7.0%
Bulimia Nervosa	61	0	0.0%	56	5	8.9%	5	8.9%
(Hypo) manic episodes	61	5	8.2%	56	34	60.7%	29	52.5%

Fewer participants reported current episodes of Suicidality, Agoraphobia, and Drug Abuse/Dependence during their first two years of being in Permanent Supportive Housing.

UTILIZATION OF MEDICAL AND OTHER PUBLIC SERVICES

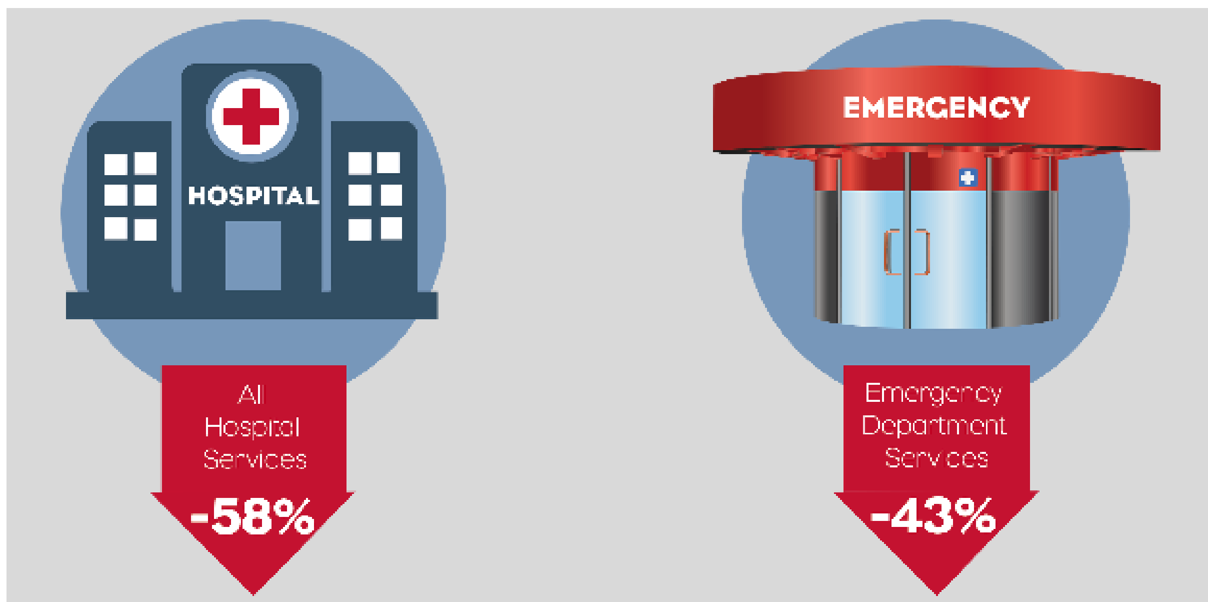
Each participant provided a signed release for data to be collected from area hospitals, the area's Federally Qualified Health Center for the Homeless, emergency facilities, publicly funded behavioral health facilities, the Jacksonville Sheriff's Office, and the HMIS database. All data were de-identified and then correlated only to the HMIS identification number.

Hospitals

Combined, a 57.6% decrease occurred in hospital costs, from $6,458,809 incurred during the two years prior to housing, decreasing by $3,717,384 to reach $2,741,425 during the first two years in housing.[xv]

By major service categories, costs for emergency department services decreased $472,073 (43.4%), from $1,086,651 to $614,579.[xvi] Costs for inpatient services decreased $2,029,693 (58.6%), from $3,547,248 to $1,467,555.[xvii] and costs for outpatient services decreased $1,165,617, from $1,824,909 to $659,291 (63.9%).[xviii]

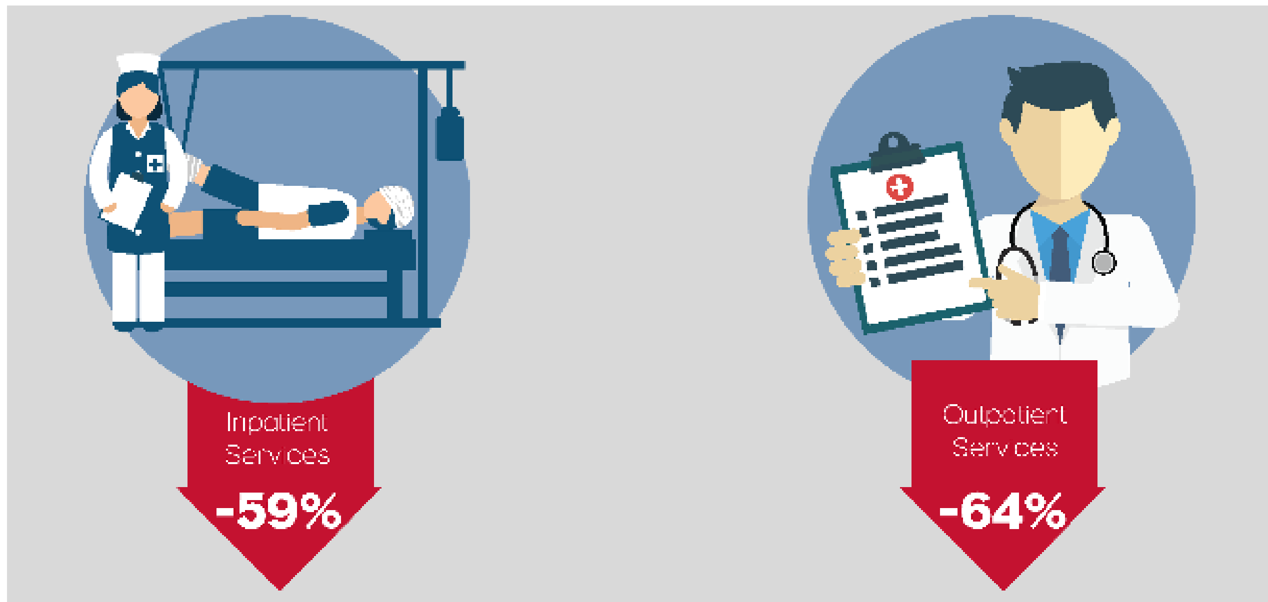
For the most part between the two years before move-in and the first two years after move-in, study participants accessed hospital services less in all categories of care at each of the four hospitals included in this study.



The total number of emergency room visits and inpatient days among participants decreased as well. During the two years prior to housing participants visited emergency rooms a total of 577 times, compared to a total of 252 visits during their first two years in housing, which is a 56.3% decrease in visits. The average cost per visit to the ER was $1,833.23 during the two years prior to housing compared to $2,438.81 during the first two years in housing.

Forty participants stayed a total of 888 days as patients in hospitals during the two years prior to housing, while 26 participants stayed a total of 380 days during the first two years in housing, a 57.2% decrease in days spent in the hospital. The average cost per stay prior to housing was $3,994.65 per day versus $3,861.99 per stay during housing.

While overall costs for outpatient services decreased, more participants used outpatient services during housing compared to prior to housing. Prior to housing, 38 participants received 279 outpatient services while 41 participants received 463 outpatient services during the first two years in housing. One notable change is the sharp decreased in the average cost of outpatient services, from $6,540 prior to housing to $1,423.



Medicaid Funded Services

Medicaid payment data provided by the Florida Agency on Health Care Administration was compared to data from the hospitals to ensure fees for identical services would not overlap. This comparison allowed for duplicate data from the Medicaid data to be excluded from the analyses. With duplicates removed from the Medicaid data, $376,336 in payments remained for health care services provided to participants during the two years prior to housing and $731,645 remained for services provided to participants during their first two years in housing. This is an increase of 94.4% ($355,308).[xix]

Physician Services had the largest increase in payments ($97,905)[xx], followed by Hospital Insurance Benefits ($68,301), and Hospital Inpatient Services ($44,402) Collectively, these services were responsible for 59.3% of the total increase in Medicaid payments for participants.

Two service categories that did not incur payments during the two years prior to housing but did during the first two years in housing: Family Planning and Skilled Nursing Care. Combined, these services were responsible for $30,543 (8.5%) of the total post-housing increase in Medicaid payments.

Table 4. Medicaid Costs provided by the Agency for Healthcare Administration

	Pre-Housing		After Housing		Change		
Service	Number Served	Total Cost of Service	Number Served	Total Cost of Service	Cost Difference: (After - Before)	Percent of Total Cost Difference	Percent Change
Adult Dental	6	$1,614	13	$6,029	$4,415	1.24%	273.59%
Case Management	3	$4,715	6	$14,720	$10,004	2.82%	212.18%
Community Mental Health Services	10	$29,265	16	$29,380	$115	0.03%	0.39%
Family Planning	0	$0.00	5	$7,543	$7,543	2.12%	100.00%
Home Health	3	$2,122	9	$5,924	$3,802	1.07%	179.15%
Hospital Inpatient	13	$121,185	11	$165,588	$44,402	12.50%	36.64%
Hospital Insurance Benefits	3	$25,766	3	$94,081	$68,315	19.23%	265.13%
Hospital Outpatient	16	$27,102	28	$41,586	$14,484	4.08%	53.44%
Lab & X-ray	19	$14,334	25	$34,024	$19,689	5.54%	137.35%
Patient Transportation	21	$21,445	26	$46,471	$25,026	7.04%	116.70%
Physician Services	31	$86,958	39	$184,864	$97,905	27.56%	112.59%
Prescribed Medication	25	$39,830	31	$66,152	$26,322	7.41%	66.09%
Skilled Nursing Care	0	$0.00	1	$22,933	$22,933	6.45%	100.00%
Other Services	14	$1,994	21	$12,342	$10,348	2.92%	518.95%
TOTALS	31	$376,330	39	$731,637	$355,302		94.41%

Community Behavioral Health Services

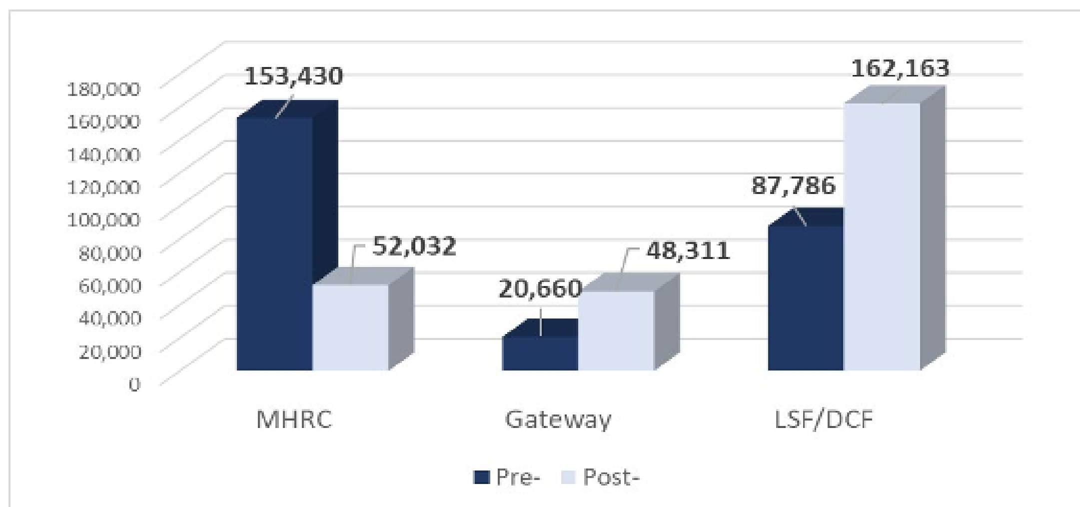
In the two years before their move-in to housing, participants accessed mental health, addiction, and other behavioral health care services at two local agencies that provided data to the study: Mental Health Resource Center (MHRC) and Gateway Community Services (Gateway). From two years before move-in to housing to two years in housing, costs incurred at MHRC fell sharply. At MHRC, costs for services fell $101,398, from $153,430 during the two years before move-in to $52,032 during the two years in housing, a reduction of 66.1%.[xxi] At Gateway costs for services provided to 38 participants increased by $27,651 (133.8%), from $20,660 incurred during the two years before move-in to $48,311 during the two years in housing.[xxii]

Secondary analyses were conducted to better understand these differences. During the two years prior to housing, 26 participants received services at MHRC. During the two years in housing, the number of participants who received MHRC services decreased to 19. At the same time, an $86,200 (70.4%) decrease in costs for 18 participants who required room and bed/bed days while in treatment at MHRC during the two years prior to move-in to housing.
At Gateway, 13 participants had received services before move-in to housing, and this number increased to 30 participants during the two years in housing. Unfortunately, because data from Gateway included charges without descriptions of services, we cannot say whether any one type of service affected the increase more than others. Nevertheless, it could be considered as indicative of quality of life improvement and a possible anticipated result of successfully housed individuals choosing to pursue treatment.

State-funded mental health and substance abuse services (SFMHSA) were provided to at least 52 participants during the study,[xxiii] with 34 participants served during the two years prior to housing and 46 served during the first two years in housing. Costs for the 34 participants totaled $87,786 during the two years prior to housing, and then increased by $74,377 (84.7%) to $162,163 during the first two years in housing.[xxiv]

The graph below details the pre- and post-housing behavioral health services costs.

Figure 4. Behavioral Health Services



Collectively, costs for community behavioral health services that were provided to study participants during the two years prior to housing totalled $261,876, which is only $629 less than the $262,505 incurred during the first two years in housing. This represents an overall increase which is less than 1%. It needs to be kept in mind that these costs are limited to behavioral health services provided by MHRC and Gateway, or funded by the state. Behavioral health services provided by hospitals are reported in the hospital section above. Behavioral health services funded by Medicaid and not identified as MHRC or Gateway are reported in the Medicaid section above.

Federally Qualified Health Center (FQHC) Medical Costs

During the two years prior to moving into Permanent Supportive Housing, 40 participants were served at the FQHC for medical services; 35 were served at the FQHC during the first two years after moving into housing. Comparing costs of services provided during the two years before moving into housing with that for the first two years while in housing, medical costs for participants at the FQHC decreased $18,228, from $48,857 to $30,629.[xxv] This represents a 37.3% decrease in FQHC costs during the first two years in housing. Reductions in the total cost of office visits and psychiatric follow-up contributed to 64.7% of the decrease in costs. The table below details costs incurred by participants during the two year period prior to moving into housing and during the first two years in housing, by type of service.

Table 5. Medical Costs Incurred at Federally Qualified Health Clinical

	Pre- (n=40)		Post- (n=35)		Change	
Medical Services	**Costs**	**% of Total**	**Costs**	**% of Total**	**Difference**	**% Change**
Office Visits	$17,030	34.9%	$10,780	35.2%	$(6,250)	-36.7% [xxvi]
Psych Follow-up	$14,560	29.8%	$10,240	33.4%	$(4,320)	-29.7%
Counseling	$6,235	12.8%	$5,800	18.9%	$(435)	-7.0%
New Patient Visits	$4,410	9.0%	$210	0.7%	$(4,200)	-95.2% [xxvii]
Labs	$3,952	8.1%	$2,529	8.3%	$(1,423)	-36.0%
Psych Evaluation	$1,920	3.9%	$320	1.0%	$(1,600)	-83.3% [xxviii]
Eye exams	$750	1.5%	$750	2.4%	$-	0.0%
Total Costs	**$48,857**		**$30,629**		**$(18,228)**	**-37.3%**

Jacksonville Sheriff's Office (JSO)

A number of the participants experienced encounters with law enforcement both during two years before move-in to The Solution That Saves housing and during the first two years of tenancy. The Jacksonville Sheriff's Office (JSO) provided arrest and jail data, noting that the arrest and booking process costs $884 per incident and that jail costs $60 per day. These costs do not include specific medical needs.

The costs of both arrest and jail time fell significantly between the two years before move-in and the first two years of tenancy. Arrests and bookings during the two years prior to being placed in PSH cost a total of $74,256, for a total of 84 arrests. Days of jail time during the two years prior to moving into PSH cost $123,447, for a total of 2,053 days spent in jail. During the first two years after move-in, the cost of arrests and bookings fell to $25,636, for 29 arrests, a reduction in cost of 65.5%.[xxix] The cost for days of jail time during the first two years after move-in to PSH fell to $34,274, for 570 days, a reduction in cost of 72.2%.[xxx]

Collectively, $137,792 in savings was seen during the first two years in housing.[xxxi] Total costs for arrest, booking and jail time were $197,702 during the two years before housing, decreasing to $59,910 during the first two years in housing.

A review of the top 10 reasons participants had been arrested before being placed in Permanent Supportive Housing found the incident of arrest for those reasons had dropped between 55% and 100% during the first two years in housing.

Table 6. Top Ten Reasons for Arrests Before Housing Compared to During Housing

Reason	Before Housing	During Housing	Difference	Percent Change
Defies order to leave or endangers property	18	2	-16	-88.9%
Trespass on property	18	2	-16	-88.9%
Drinking in public	12	0	-12	-100.0%
Obstructing flow of traffic on public street	9	4	-5	-55.6%
Pedestrian soliciting	9	4	-5	-55.6%
Consumption or sale of alcohol on city property	7	3	-4	-57.1%
Use, or possess with intent to use, drug paraphernalia	7	2	-5	-71.4%
Possess not more than 20 grams of marijuana	6	0	-6	-100.0%
Resisting officer without violence to his or her person	6	0	-6	-100.0%
Petit theft – retail – less than $100	5	1	-4	-80.0%

Jacksonville Fire and Rescue Department Emergency Services

The number of participants in need of emergency transport services by the Jacksonville Fire and Rescue Department (JFRD) decrease from 133 during the two years prior to placement in housing to 86 during the first two years in housing. This resulted in a 21.0% decrease in emergency transport services costs for participants: from $76,165 during the two years prior to housing, which decreased to $59,530 during housing.[xxxii] This represents a $16,635 savings in emergency transport services. Additionally, the number of emergency service responses that did not require transport decreased from 14 during the two years before housing to just 10 during the first two years in housing.

Homeless Services Costs from the Homeless Information Management System (HMIS)

As described above, HMIS is a database that holds extensive information about persons experiencing homeless who are assessed at a coordinated entry site and receive case management services in addition to other services such as overnight shelter, meals, bus passes, emergency supplies, and furnishings. HMIS also has data for the housing subsidies that pay rent and utilities for participants. The cost of these subsidies has been included in the "post-housing" total costs and cost benefit analysis. Due to the costs associated with the provision of Permanent Supportive Housing (PSH) – both

the rental subsidies and the intensive services – it was anticipated that the overall costs reported in HMIS would increase for study participants after placement into housing.

Pre-housing HMIS costs during the two years before move-in totaled $83,567. The largest of the pre-housing costs were shelter nights ($46,365); case management ($14,634); use of the day resource center ($5,715); food – take home bags of groceries ($4,776); and meals – primarily provided at shelters ($3,109). All of these costs except case management were reduced substantially post housing. The total costs post housing for shelter nights, use of the day resource center, food and meals was $2,162, a reduction of $57,803. The post housing costs for case management was $213,552, an increase of $198,918.

Post-housing HMIS service costs during the first two years in housing totaled $243,295, which represents a 191% increase in cost from pre-housing to post-housing. HMIS did not capture the post cost of housing subsidies for the participants which were $1,124,860, averaging $8,271 per participant, per year. When you factor in the increased cost of providing services, case management and peer support, which totaled $243,295 over the first two years in housing, or $1,788 per participant, per year; the total cost per participant per year for providing PSH equals $10,058. This cost does not include support services provided by a number of agencies that do not use HMIS and were unable to provide data for the study so the post cost is likely somewhat higher. A sample of studies of PSH shows the costs of providing PSH to be $17,277 (New York, NY); $13,400 (Denver, CO); and $9,870 (Portland, OR).

Village on Wiley

The table below compares HMIS costs for the two years before housing with that for the two years in supportive housing.

Table 7. Total HMIS Costs Pre- and Post- Housing

Type of Service	Before Housing	% of Pre Costs	During Housing	% of Post Costs	Difference	Percent Change
Bus Transportation	$399	0.5%	$5,079	2.1%	$4,680	1172.9%
Case Management	$14,634	17.5%	$213,552	87.8%	$198,918	1359.3%
Food (Groceries)	$4,776	5.7%	$528	0.2%	$(4,248)	-88.9%
General Housing Stability Supplies, Emergency Supplies, Furniture	$821	1.0%	$5,762	2.4%	$4,941	601.6%
Meals	$3,109	3.7%	$252	0.1%	$(2,857)	-91.9%
Peer Support	$0	0.0%	$9,817	4.0%	$9,817	100%
Rental Assistance	$1,666	2.0%	$3,522	1.4%	$1,855	111.3%
Rental Deposit	$1,359	1.6%	$1,400	0.6%	$41	3.0%
JDRC Shelter	$5,715	6.8%	$795	0.3%	$(4,920)	-86.1%
Shelter (Night)	$46,365	55.5%	$587	0.2%	$(45,778)	-98.7%
Utilities	$730	0.9%	$1,155	0.5%	$425	58.2%
Employment Services	$488	0.6%	$0	0.0%	$(488)	-100.0%
Counseling	$130	0.2%	$843	0.3%	$713	548.9%
Other	$3,372	4.0%	$0	0.0%	$(3,372)	-100.0%
Total services cost documented in the HMIS	**$83,564**		**$243,292**		**$159,705**	**191.1%**
HMIS costs per person per year	$614		$1,788		$1,174	

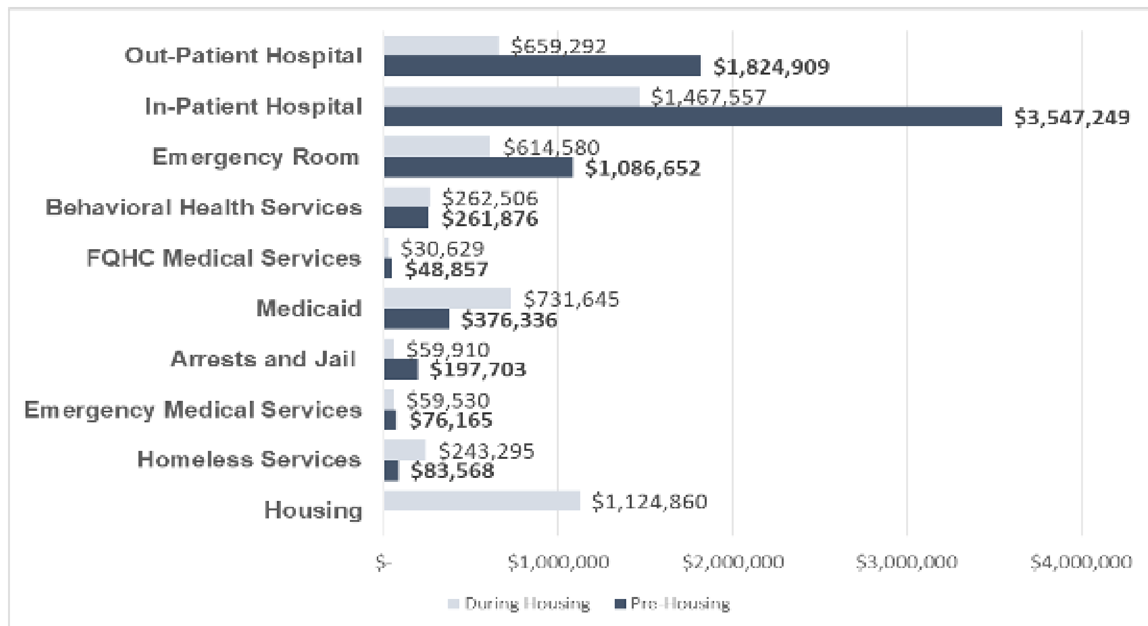
Total Study Population

In the case of the data for the total study population, the test compared expenditures by/for the 68 current participants of $7,503,314 pre-housing to $5,253,803 post-housing, a reduction of $2,249,511. A Wilcoxon Signed Rank Test determined this reduction was not statistically significant, z=. -733, p=.463, with a .06 effect size (r=small).

The median score on the total costs decreased from $52,173 prior to housing to $45,774 after housing. The post-housing costs for the 68 study participants showed a meaningful decrease from the pre-housing costs for this group of homeless individuals who were provided permanent supportive housing (PSH). The lack of statistical significance simply means we cannot say with certainty that these findings can be replicated to other homeless populations who are provided with similar PSH.

The small number of participants in the sample and the wide range in outcome costs contribute to the lack of statistical significance in the data. The cost benefit for this group of 68 study participants came to $33,082 (average decrease) per person, with individual outcomes ranging from a cost savings of $1,139,707 to a cost increase of $153,740. This average included participants who greatly benefitted from PSH with cost savings of over $385,000. Removing these three largest savings, the average cost savings was a decrease of $5,388 per person, with individual outcomes ranging from a decrease in costs of $192,968 to an increase in costs of $153,740.

Figure 5. Total Costs Pre- and Post- Housing



The overall cost to the community for all service utilization – including jail and arrests – prior to housing totaled $7,503,314 or $110,343 per participant. The post-housing costs of all services, including subsidized housing and the increase costs of case management and peer support services, totaled $5,253,803 or $77,262 per participant. This represents a savings of $2,249,511 or $33,081 per participant.

Conclusions and Recommendations

Conclusions

This evaluation focused on the cost benefits for several variables related to homelessness and the provision of supportive permanent housing. It delineated study participants' responses to a number of psychiatric and mental wellness variables. This study also described perceptions on quality of life measures.

Overall, the evaluation results indicated that intended project outcomes regarding mental wellness and quality of life were successfully addressed and that there is continued cost savings across all variables defined in this study. Below are several examples of project outcomes.

Quality of Life

Feedback on the Ferrans and Powers Quality of Life assessment indicated that the most striking detail lies in the percent of change to the minimum and maximum scores from the pre-test to the post-test at the end of the second-year. The minimum and maximum percent change numbers continued to show a sharp drop into negative changes at the same time as a steep increase into positive changes, causing the range of responses to be more varied and inconsistent.

Mini-International Neuropsychiatric Interview

There was a variety of changes across the number of mental health variables. The most significant feedback on the M.I.N.I assessment demonstrated that fewer participants reported current episodes of Suicidality, Agoraphobia, and Drug Abuse/Dependence during their first two years of being in permanent supportive housing.

Hospitals

By major service categories, costs for emergency department services decreased $472,072 (43.4%), from $1,086,651 to $614,579. Costs for inpatient services decreased $2,029,692 (58.5%), from $3,547,248 to $1,467,556. Finally, costs for outpatient services decreased $1,165,617, from $1,824,909 to $659,291 (63.9%).

For the most part between the two years before move-in and the first two years after move-in, participants accessed hospital services less in all categories of care at each of the four hospitals that participated in this study. Hospital services were utilized by 38 participants during the two years prior to housing and decreased to 28 participants during their first two years in housing.

Services Utilizations

The overall cost to the community for all service utilization – including jail and arrests – prior to housing totaled $7,503,314 or $110,343 per participant. The post-housing costs of all services, including subsidized housing and the increase costs of case management and peer support services, totaled $5,253,803 or $77,262 per participant. This represents a savings of $2,249,511 or $33,081 per participant. The responses for this second year are similar to the year one results.

For the overall study group, there is an indication that results can continue to be replicated under similar conditions and that the conclusions accurately represent the numeric facts of this assessment. Based on these consistent results there is assurance that full service housing costs less while concurrently providing better efficiency of services than pre-housing homeless conditions.

Recommendations

Programmatic

1. Continue the implementation of permanent supportive housing services.
2. Consider scheduling stakeholder focus groups and key informant interviews to gain additional insights into program components in need of change, and program usefulness and acceptance within the community.

Evaluation

1. Collect data on an ongoing basis and conduct analysis on a periodic basis.
2. Re-evaluate assessment tools used to determine if they are appropriate for this population.
3. Make sure that every participant completes all posttests at program exit. If a participant exits the program early, make sure this participant completes the posttest and note the early program termination on the survey.
4. Review evaluation plan to determine methods for providing an even more robust evaluation.
5. Consider continuance of all aspects of evaluation to determine changes over time as well as programmatic and outcome sustainability.
6. Consider evaluation plan revisions with the addition of a qualitative component that will address all stakeholders including participant needs.

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APPENDIX A

Village on Wiley

The Village on Wiley's supportive housing project was the impetus for the *"The Solution That Saves"* pilot study. Village on Wiley is one of three pilot sites serving a community's highest utilizers of publicly funded services funded by Florida Housing Finance Corporation. Village on Wiley opened in August 2015 to serve Jacksonville's most vulnerable citizens- more than 80% of its residents have experienced chronic homelessness. Like all Ability Housing communities, Village on Wiley provides voluntary, individualized support services to complement its affordable housing units.

The following study results for Village on Wiley study participants are presented in a similar format to the overall report. The results are both similar and, in some cases, distinctly different from the overall results.

FINDINGS:

Village on Wiley Residents in the Study

Characteristics: Demographics

Demographic information about participants in The Solution That Saves Project who live in Village on Wiley was drawn from the Homeless Information Management System (HMIS), direct contact during interviews and surveys, and subsequent service sessions. While all the individuals housed at Village on Wiley were eligible for the study, not all of them agreed to participate. For those participants who agreed to participate from August 2015 (when the project first began housing at Village on Wiley) until June 2018 (when the last of the participants completed their second year in permanent supportive housing) 37 of the original 92 participants in the study lived in permanent supportive housing other than at Village on Wiley, and 55 had lived at Village on Wiley at some point in time. Of those 55, 29 had lived at Village on Wiley for at least 17 months (and a minimum of 24 months total in PSH) during the study period. Data about these 29 people will be used to describe the quality of life, mental wellness, and results of the cost benefit analysis for individuals who received permanent supportive housing services while living at Village on Wiley.

At the end of the study, the 29 participants that have been in housing at the Village on Village on Wiley for at least 17 months through The Solution That Saves *Project* ranged in age from 28 to 64 years. About half of the participants (n=15) were born between 1953 and 1965 and the other half (n=14) between 1966 and 1990. A slight majority (58.6%) of these participants self-identified as African-American, and 69% were male. Of the 29 participants, only one self-identified as Hispanic/Latino; all the others identified as non-Hispanic/Latino. The figure below clarifies the junctions between gender and race.

Table 1. Participants by Gender and Race

Gender	Caucasian / White	African-American / Black	Totals
Male	7	13	20
Female	5	4	9
Totals	12	17	29

About 31% of these 29 participants had earned a traditional high school diploma or a GED, and 24.1% finished 8th grade or started (but did not finish) high school. An additional 13.8% had completed college courses. Education attainment data was not reported for 31% of the participants.

Further, HMIS records showed disabilities for all but one participant (96.6%). These disabilities included intellectual, physical, and psychiatric diagnosis. The table below summarizes demographic characteristics of both the entire study population and the Village on Wiley sub-group. As can be seen in this table, in most instances the sub-group demographics are similar to the entire study population. The main difference is in gender, where the Village on Wiley sub-group had a higher percentage of males than the overall study population.

David's Story

David was one of the first to move into Village on Wiley in November 2015. The 53-year-old former Marine was homeless off and on for over 10 years, today he says, "I have found stabilization, I have a place to call home, my own regular doctors and I got married in September of 2017."

"I am thankful to Ability Housing, without them I would still be living on the streets. I have learned to be more responsible, I pay rent which a big responsibility," he says.

Another change David has experienced is having a regular doctor, "Being more stable means I no longer use the emergency room like before. When I was homeless, I would go to the emergency room to just get off the street. It was just a way to get by," he says.

David- Village on Wiley Resident

Table 2. Demographic Characteristics of Participants at Initial Placement at Village on Wiley and Study Group after Two Years in Housing

Variable	At Time of Placement in Housing		After Two Years in Housing	
	n	%	n	%
Total Count of Participants	55		29	57.73%
Gender				
Female	25	45.45%	9	31.03%
Male	30	54.55%	20	68.97%
Race				
African-American/Black	28	50.91%	17	58.62%
Caucasian/White	27	49.09%	12	41.38%
Ethnicity				
Non-Hispanic/Latino	54	98.18%	28	96.55%
Hispanic/Latino	1	1.82%	1	3.45%
Age				
20-39	12	21.82%	6	20.69%
40-49	10	18.18%	4	13.79%
50-64	33	60.00%	19	65.52%
Level of Education				
Up to 12th Grade	14	25.45%	7	24.14%
High School Diploma or GED	19	34.55%	9	31.03%
Some College	4	7.27%	4	13.79%
No information	18	32.73%	9	31.03%
Disability				
Yes	54	98.18%	28	96.55%
No	1	1.82%	1	3.45%
Total Count of Participants	55		29	52.73%

** Percent of all Village on Wiley residents in sib-group analysis*

The above compares the characteristics of 55 Village on Wiley residents who originally agreed to participate in the study with the 17 that remained residents at Village on Wiley for at least two years and continued their participation in the study as of June 2018. As for the remaining 38 of the 55 Village on Wiley residents and study participants, 23 were included in the broader summary described at the beginning of this report and 15 were not able to be reached. The 23 that were included in the broader summary are not included in this section because they had not lived at Village on Wiley for at least two years. Of these, 3 moved to Village on Wiley after living at other housing provided by the project, 11 moved from Village on Wiley to other housing provided by the project, and 9 stopped living in housing provided by the project but consented to use of their data for this two-year study. Housing outcomes for those no longer in the project, 4 lived in rental housing, 2 were staying with friends, 1 moved to PSH provided by another entity, and 1 moved into long term care.

The last known housing outcome for remaining 15 Village on Wiley participants who could not be reached are: 3 moved into rental housing, 4 were living with friends, 5 returned to homelessness, and 3 were deceased.

Characteristics: Socioeconomic

Income. Moving into permanent supporting housing provided opportunities for increased income. The number of participants with some level of income increased from 17 before moving into housing to 28 during housing. On average, participants experienced a $240 increase in income from prior to moving into housing to during housing.[xxxiii] This represents an 80.8% average increase in income for the group. The average monthly income before moving into housing was $297, ranging from no income (n=12, 41.4%) to $922. The average monthly income during housing was $537, ranging from $140 to $1296. Income increased for 21 (72.4%) of the participants, including 5 (17.2%) with increases between $300 and $1,242. Only one of the participants that had stayed at Village on Wiley for at least 17 months experienced a decrease in income of $57 per month. The figure above compares individual incomes before and during moving into housing.

Of those who had income before housing (n=17) most income came from Supplemental Security Income (SSI) (n=7, 41.2%) and/or Florida's Supplemental Nutrition Assistance Program (SNAP) (n=11, 64.7%). It is important to note that individual participants income could come from multiple sources. After housing 23 (79.3%) of the 29 study participants at Village on Wiley received income from SNAP, 8 (27.6%) had SSI, 2 (6.9%) received income from Social Security Disability Insurance (SSDI), 2 received earned income (6.9%), and one received income from Temporary Assistance for Needy Families (TANF).

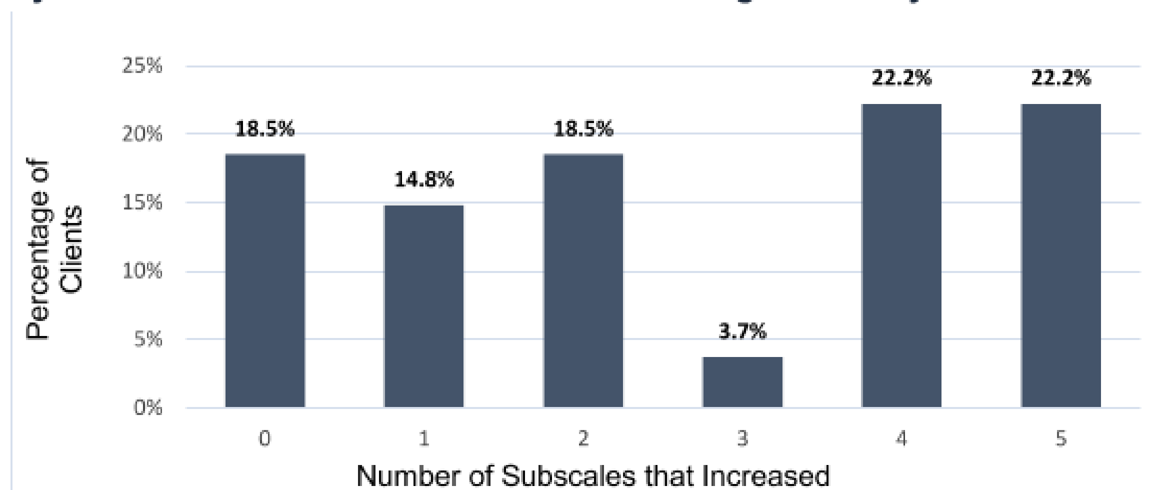
Insurance. Residing in permanent supporting housing provided access to insurance. Prior to moving into housing, 9 participants at Village on Wiley (52.9%) did not have health insurance. During housing, the number of participants without insurance decreased to 4 (23.5%). This represents a 29.4% improvement in participants with health insurance. Access to Medicaid was responsible for this improvement, with HMIS data showing 6 participants (35.3%) having Medicaid at the time they entered housing and 9 participants (52.9%) during housing. Use of other types of insurance by 3 participants remained fairly constant across both periods.

Vulnerability Assessment. All participants were assessed for housing need before moving into permanent supporting housing. Vulnerability assessment scores were available on the HMIS database for 12 participants before they moved into housing and for 5 participants during housing. Before moving into housing, the average participant score was 12, ranging from 8 to 14. After housing, the average decreased to 5, ranging from 1 to 4.[xxxiv]

QUALITY OF LIFE AND MENTAL WELLNESS ASSESSMENTS

As stated earlier in this report the Ferrans and Powers Quality of Life Index survey were all administered in an interview setting. Again the four subject headings are Health & Functioning, Socioeconomics, Psychology & Spirituality, and Family. Each subject area and the overall rating are based on 30 possible points: the closer to 30 the rating, the more satisfied the participant is in that area of life. Twenty-seven of the twenty-nine participants from Village on Wiley sub-group had a matched pair of pre- and post- Quality of Life Assessments. It is also important to note that 28 participants had a completed pre or post assessment. The table below illustrates the mean, maximum value and minimum value in each of the four categories plus the percent of change for the Village on Wiley sub-group participants for the pre-test before move-in and the post test at the end of the study.

Figure 1. Increases in Quality of Life by Number of Scales that Increased for Village on Wiley Residents



The M.I.N.I. International Neuropsychiatric Interview is a structured diagnostic interview developed by Sheehan and others in 1990 for DSM-5 and ICD-10 psychiatric disorders. The main modules within the MINI are:

- Major Depressive Episodes
- Dysthymia
- Suicidality
- (Hypo) Manic Episodes
- Panic Disorder; Agoraphobia
- Social Phobia
- Obsessive Compulsive Disorder
- Posttraumatic Stress Disorder
- Alcohol Dependence/Abuse
- Drug Dependence/Abuse
- Psychotic Disorders
- Anorexia Nervosa
- Bulimia Nervosa

- Generalized Anxiety Disorder
- and Antisocial Personality Disorder (Sheehan, Lecrubier, Sheehan, Amorim, Janavs, Weiller, Hergueta, Baker Dunbar, 1998).

Results from the Mini-International Neuropsychiatric Interview (M.I.N.I. 6.0) came from 27 participants on or near date of moving into permanent supporting housing (pre-assessment), and again for 26 participants during December 2017 through June 2018 (post-assessment). Statistical analysis of the M.I.N.I. data for this group revealed:

- Current Suicidality within the Village on Wiley study group decreased 40.2%, from 15 participants (55.6%) meeting the criterial for Suicidality on the pre-assessment compared to 4 (15.4%) at post-assessment.[xxxv]
- Antisocial Personality Disorder decreased 25.5% from 10 participants (37%) at pre-assessment to 3 participants (11.5%) at post-assessment.[xxxvi]
- A 75% decrease was seen for Current Agoraphobia, with 8 (29.6%) meeting that criteria at pre-assessment compared to 2 (7.7%) at post-assessment.[xxxvii]
- Decreases were also seen for Current Major Depressive Episodes, Social Phobia, Psychotic Disorders, and Generalized Anxiety Disorder from pre-assessment to post-assessment.
- (Hypo) manic episodes increased 46.7% from four participants (14.8%) at pre-assessment to 16 participants (61.5%) at post-assessment.[xxxviii]
- Posttraumatic Stress Disorders (PTSD) within the Village on Wiley study group increased 27.2%, from 2 participants (7.4%) at pre-assessment compared to 9 (34.6%) at post-assessment.[xxxix]
- Increases in the number of participants from pre-assessment to post-assessment were also witnessed in Substance Use Disorders (Alcohol and/or Drug dependence or abuse).
- Slightly more residents in the Village on Wiley study sub-group had more current episodes for Panic Disorder, Obsessive Compulsive Disorder, and Bulimia Nervosa after housing than before housing.

The increases in (Hypo) manic conditions, PTSD, Panic Disorder, Obsessive Compulsive Disorder, Substance Use Disorders, or Bulimia Nervosa may be due to this population settling into permanent housing and now having the opportunity to more totally focus on self. There may also be a relationship with these increases and residents working with recovery peer specialists. Residents may feel more secure in self-assessment and recognition of more mental health challenges.

Table 3. Change in Mental Wellness

Modalities	Pre-Assessment			Post-Assessment			Change in Counts (T2-T1)	Change in Percent
	Assessed	Meets Requirements		Assessed	Meets Requirements			
Major Depressive Episodes	27	2	7.41%	26	0	0.00%	-2	-7.41%
Suicidality	27	15	55.56%	26	4	15.38%	-11	-40.18%
(Hypo) manic episodes	27	4	14.81%	26	16	61.54%	12	46.73%
Panic Disorder	27	6	22.22%	26	7	26.92%	1	4.70%
Agoraphobia	27	8	29.63%	26	2	7.69%	-6	-21.94%
Social Phobia	27	6	22.22%	26	4	15.38%	-2	-6.84%
Obsessive Compulsive disorder	27	6	22.22%	26	7	26.92%	1	4.70%
Posttraumatic Stress Disorder	27	2	7.41%	26	9	34.62%	7	27.21%
Alcohol dependence / Abuse	27	6	22.22%	26	9	34.62%	3	12.40%
Drug Dependence / Abuse	19	10	52.63%	26	11	42.31%	1	-10.32
Psychotic Disorders	27	1	3.70%	26	0	0.00%	-1	-3.70
Anorexia Nervosa	9	0	0.00%	26	0	0.00%	0	0.00%
Bulimia Nervosa	27	0	0.00%	26	2	7.69%	2	7.69%
Generalized Anxiety Disorder	27	5	18.52%	26	4	15.38%	-1	-3.14%
Antisocial Personality Disorder.	27	10	37.04%	26	3	11.54	-7	-25.50%

Fewer participants reported current episodes of suicidality, agoraphobia, and antisocial personality disorder during their first two years of being in permanent supportive housing.

Utilization of Medical and Other Public Services

Each current participant at Village on Wiley provided a signed release for pertinent hospitals, emergency facilities, ambulance services, the Jacksonville Sheriff's Office, and the HMIS database. All data were de-identified and then correlated only to the HMIS identification number.

Hospitals

Twenty-seven of the 29 Village on Wiley study participants received emergency room, inpatient, and/or outpatient services at one or more of 4 hospitals: Baptist Medical Center, Memorial Hospital, St. Vincent's Medical Center, and UF Health Jacksonville. Overall, a 61.4% decrease occurred in hospital costs, from $4,205,592 incurred during the two years prior to housing, decreasing by $2,582,418 to reach $1,623,174 during the first two years in housing.[xl]

By major service categories, costs for emergency department services decreased $130,903 (29.3%), from $447,155 to $316,252;[xli] costs for inpatient services decreased $1,506,856 (60.8%), from $2,479,241 to $972,385;[xlii] and costs for outpatient services decreased $944,659, from $1,279,196 to $334,537 (73.9%).[xliii]

For the most part between the two years before move-in and the first two years after move-in, participants accessed hospital services less in all categories of care at each of the four hospitals. Hospital services were utilized by 27 participants during the two years prior to housing and decreased to 22 participants during their first two years in housing.

The total number of emergency room visits and inpatient days among participants decreased as well. During the two years prior to housing, 27 participants visited emergency rooms a total of 244 times, compared to 18 participants with a total of 90 visits during their first two years in housing, a 63.1% decrease in visits. The average cost per visit to the ER was $1,832 during the two years prior to housing compared to $3,513 during the first two years in housing.

Eighteen Village on Wiley study residents stayed a total of 614 days as patients in hospitals during the two years prior to housing, while 11 participants stayed a total of 254 days during the first two years in housing, a 58.6% decrease of inpatient days in the hospital. The average cost prior to housing was $4,037 per day and $3,828 per day during housing.

Prior to housing, 13 participants received 110 outpatient services while 15 participants received 153 outpatient services during the first two years in housing. The average cost for outpatient services decreased sharply, from $11,629 per pre-housing visit compared to $2,186 per visit during housing.

The following table compares total hospital costs with costs incurred at each hospital.

Table 4. Change in Hospital Costs incurred by Village on Wiley Study Participants						
Hospital	T1 Clients Served	T2 Clients Served	T1 Total	T2 Total	Difference	Percent Change
All Hospital Services						
Totals	27	22	$4,205,592	$1,623,174	($2,582,418)	-61.40%
Emergency Department Services						
Totals	27	18	$447,155	$316,252	($130,903)	-29.27%
Inpatient Services						
Totals	18	11	$2,479,241	$972,385	($1,506,856)	-60.78%
Outpatient Services						
Totals	13	15	$1,279,196	$334,537	($944,659)	-73.85%

Community Behavioral Health Services

In the two years before their move-in to The Solution That Saves housing, participants accessed mental health, addiction, and other health care services at three local agencies: Mental Health Resource Center (MHRC) and Gateway Community Services (Gateway). The 2016-2017 report also described costs for services at River Region Health Services (RRHS), which was not made available to the project for the current report. MHRC and Gateway provide mental health as well as substance abuse treatment. So, it could be considered that an increase of the costs of substance abuse treatment is not necessarily a negative. For these participants it could be considered as indicative of quality of life improvement and a possible anticipated result of successfully housed individuals choosing to pursue treatment.

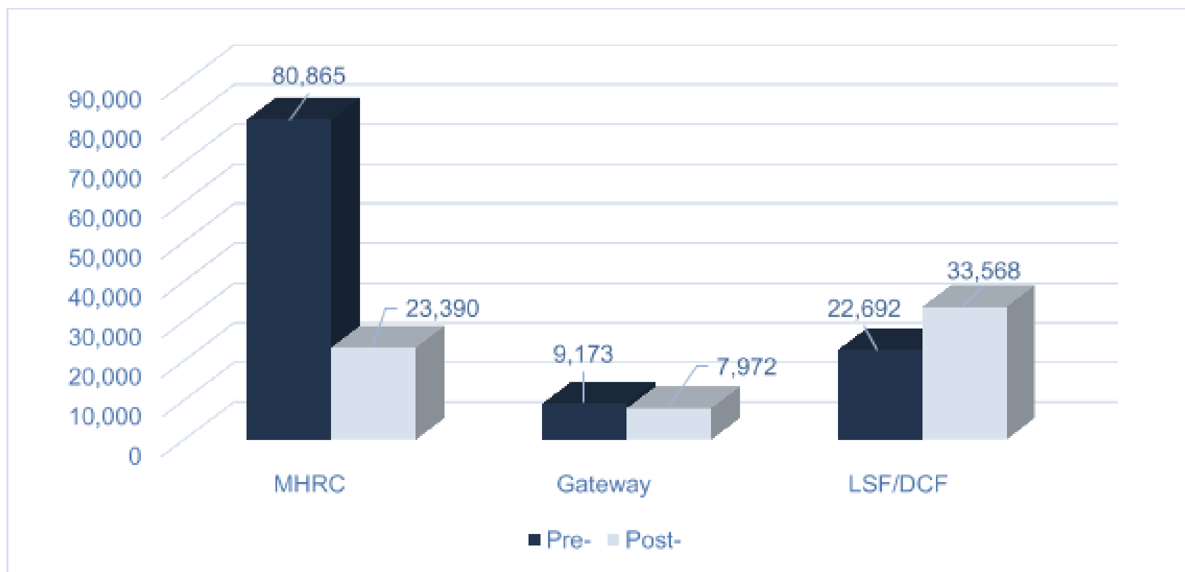
MHRC provided $80,865 in behavioral health services to 14 Village on Wiley participants during the two years prior to housing and then $23,390 in services to 6 participants during the two years after, resulting in a reduction in costs of $57,475 (71.1%). A large majority of this decrease came from reductions in room and board at MHRC, which during the two years before housing was $68,000 and decreased to $20,400 during housing, a reduction of 70%.

Gateway provided $9,173 in behavioral health services to 6 Village on Wiley participants during the two years prior to housing and then $7,972 in services to 9 residents during housing. An increase in Gateway services was expected due to funding Gateway had acquired from an outside source that allowed expansion of behavioral health services at the Village on Wiley location from August 2015 through December 2016. The expansion caused a slight decrease in the overall cost of services for the Village on Wiley participants.

This can be explained by the great decrease in the cost per person for those services, from $1,528 per person before housing to $885 per person during housing.

State-funded mental health and substance abuse services (SFMHSA) were provided to at least 21 Village on Wiley sub-group participants during the study,[xliv] with 14 participants served during the two years prior to housing and 18 served during the first two years in housing. Costs for the 14 participants totaled $22,692 during the two years prior to housing, and increased by $10,876 (47.9%) to $33,568 during the first two years in housing.[xlv]

Figure 2. Behavioral Health Medical Services for Village on Wiley Participants



Collectively, costs for community behavioral health services that were provided to Village on Wiley sub-group participants during the two years prior to housing totalled $112,729, and decreased by $47,800 (42.4%) to $64,930 incurred during the first two years in housing. It is important to note that these costs are limited to behavioral health services provided by MHRC and Gateway, or funded by the State of Florida.

FEDERALLY QUALIFIED HEALTH CLINIC (FQHC) MEDICAL COSTS

During the two years prior to moving into permanent supportive housing, 20 of the residents in the Village on Wiley study group received services from Sulzbacher, the Federally Qualified Health Clinic that provides services to the homeless population, and 18 participants received services during the first two years in housing. Comparing costs of services provided during

the two years before moving into housing with that for the first two years while in housing, medical costs
for participants at the FQHC decreased $7,255, from $24,664 to $17,409.[xlvi] This represents a 29.4% decrease in FQHC costs during the first two years in housing. Reductions in the total cost of office visits and psychiatric follow-up, the two service types with that were used the most, contributed to 56.6% of the decrease in costs. The table below details costs incurred by participants during the two year period prior to moving into housing and during the first two years in housing, by type of service.

Table 5. Medical Costs Incurred at Federally Qualified Health Clinical

	Pre- (n=40)		Post- (n=35)		Change	
Medical Services	**Costs**	**% of Total**	**Costs**	**% of Total**	**Difference**	**% Change**
Office Visits	$7,800	31.6%	$5,610	32.2%	$(2,190)	-28.1%
Psych Follow-up	$9,920	40.2%	$8,000	46.0%	$(1,920)	-19.4%
Counseling	$2,320	9.4%	$1,160	6.7%	$(1,160)	-50.0%
New Patient Visits	$1,890	7.7%	$210	1.2%	$(1,680)	-88.9%
Labs	$1,464	5.9%	$2,129	12.2%	$664	45.4%
Psych Evaluation	$1,120	4.5%	$-	0.0%	$(1,120)	-100.0%
Eye exams	$150	0.6%	$300	1.7%	$150	100.0%
Total Costs	**$24,664**		**$17,409**		**$(7,256)**	29.4%

Medicaid Funded Services

After duplicates with hospital data were removed, the Medicaid payment data contained data for 14 of the 29 Village on Wiley residents who were housed at Village on Wiley for at least 17 months. For these individuals, Medicaid payments prior to housing was $220,107, which increased $67,501 (30.7%) to $287,608 during their first two years in housing. The difference in average costs between the two years was not statistically significant.

An increase in nine service categories came to $156,767, which was offset by an $89,266 decrease spread across four service categories. Hospital Insurance Benefits had the largest increase in payments ($66,618), followed by Physician Services ($32,163), and Skilled Nursing Care ($22,933). Service categories with the largest decreases were Hospital Inpatient Services ($72,131), Community Mental Health ($10,078), and Lab and X-ray Services ($6,114). The Village on Wiley study group did not incur expenses for Assistive Care or Family Planning during the two years prior to housing or the first two years in housing. Skilled Nursing Care did not incur payments during the two years prior to housing but did incur payments during the first two years in housing of $22,933.

Table 6. Medicaid Costs provided by the Agency for Healthcare Administration (Village on Wiley Residents)							
	Before-Housing		**After Housing**		**Change**		
Service	**Number Served**	**Total Cost of Service**	**Number Served**	**Total Cost of Service**	**Cost Difference: (After - Before)**	**Percent of Total Cost Difference**	**Percent Change**
Adult Dental	2	$149	5	$1,832	$1,683	2.49%	1129.66%
Assistive Care	0	$-	0	$-	$-	0.00%	0.0%
Case Management	2	$4,358	1	$4,529	$171	0.25%	3.92%
Community Mental Health	4	$21,987	5	$11,909	$(10,078)	-14.93%	-45.84%
Family Planning	0	$-	0	$-	$-	0.00%	0.0%
Home Health	3	$2,122	4	$5,022	$2,899	4.30%	136.61%
Hospital Inpatient	9	$102,319	4	$30,189	$(72,131)	-106.86%	-70.50%
Hospital Insurance Benefits	2	$10,765	2	$77,384	$66,618	98.69%	618.83%
Hospital Outpatient	7	$5,782	7	$4,838	$(944)	-1.40%	-16.33%
Lab & X-ray	6	$8,347	6	$2,234	$(6,114)	-9.06%	-73.24%
Patient Transportation	8	$3,148	9	$14,699	$11,551	17.11%	366.95%
Physician	11	$48,020	12	$80,184	$32,163	47.65%	66.98%
Prescribed Medication	8	$12,567	10	$23,297	$10,730	15.90%	85.38%
Skilled Nursing Care	0	$-	1	$22,933	$22,933	33.97%	0.0%
Other Services	4	$542	9	$8,560	$8,018	11.88%	1478.94%
TOTALS	**14**	**$220,107**	**14**	**$287,608**	**$67,501**		**30.67%**

Jacksonville Sheriff's Office (JSO)

A number of the current participants experienced encounters with law enforcement both during the year before move-in to *Solution That Saves* housing and in the first two years of tenancy. The Jacksonville Sheriff's Office (JSO) provided arrest and jail data, noting that the arrest and booking process costs $884 per incident and that jail costs $60 per day. The costs of both arrest and jail time fell between the year

before move-in and the first year of tenancy. Six participants had been arrested at some point in time during the two years prior to move-in to housing, and 5 were arrested while in housing. Arrests and bookings during the year before move-in cost $16,796, for a total of 19 arrests. Days of jail time during that year cost $13,289, for a total of 221 days. During the first year after move-in, the cost of arrests and bookings fell to $7,956, for only 9 arrests, a reduction in cost of 29%. The cost for days of jail time during the first year after move-in fell to $3,969 for a total of 66 days, a reduction in cost of 78%.

Jacksonville Fire and Rescue Department Emergency Services

The number of participants in need of emergency transport services by the Jacksonville Fire and Rescue Department (JFRD) decreased from 18 during the two years prior to placement in housing to 14 during the first two years in housing. This resulted in a 13.1% decrease in emergency transport services costs for participants: from $34,015 during the two years prior to housing, which decreased to $29,545 during housing. This represents a $4,470 savings in emergency transport services.

Homeless Services Costs from the Homeless Information Management System (HMIS)

The HMIS is an electronic database for information on the characteristics and service needs of homeless people. Data fields in the HMIS include gender, date of birth, race, ethnicity, family composition, veteran status, income, income sources, non-cash benefits, veteran status, disabling condition, current and prior zip code, education level, and housing status. The costs reported in this system are those costs and services provided by the users of the system which are generally homeless specific service provider agencies. The increase in rental assistance and the case management/peer support services is the cost of putting and keeping people in housing, primarily paid through a number of funding sources administered by Ability Housing, primarily HUD Continuum of Care funding.

The cost of these subsidies has been included in the "post-housing" total costs and cost benefit analysis. Due to the role that service provider agencies submitting data to the HMIS has played with this housing, it was expected that these HMIS [xlvii]reported service costs to rise, which they did. Pre-housing HMIS costs during the two years before move-in totaled $33,414, or average of $1,152 per person, per year. During the two years after move-in, HMIS

costs rose to $77,963, or an average of $2,688 per person per year.[xlviii] This represents an increase of $44,549 overall in HMIS costs, or an additional $1,536 per person per year. The cost of housing subsidies during the two-years after placement in housing was $505,878, or $8,722 per person per year. Collectively, HMIS services and the housing subsidies averaged $10,066 per person per year during the two years after housing. The table below compares HMIS costs for the two years before housing with that for the two years in housing.

Table 7. Total HMIS Costs Pre- and Post- Housing

Type of Service	Before Housing	% of Pre Costs	During Housing	% of Post Costs	Difference	Percent Change
Bus Transportation	$117	0.35%	$1,896	2.43%	$1,779	1521%
Case Management	$9,173	27.45%	$63,306	81.20%	$54,133	590%
Food (Groceries)	$3,200	9.58%	$88	0.11%	($3,112)	-97%
General Housing Stability Supplies, Emergency Supplies, Furniture	$50	0.15%	$2,618	3.36%	$2,568	5136%
Meals	$992	2.97%	$87	0.11%	($905)	-91%
Peer Support	$0	0.00%	$4,545	5.83%	$4,545	100%
Rental Assistance	$443	1.33%	$2,828	3.63%	$2,384	538%
Rental Deposit	$309	0.92%	$800	1.03%	$491	159%
JDRC Shelter	$3,555	10.64%	$75	0.10%	($3,480)	-98%
Shelter (Night)	$14,053	42.06%	$564	0.72%	($13,489)	-96%
Utilities	$731	2.19%	$1,156	1.48%	$425	58%
Counseling	$0	0.00%	$0	0.00%	$0	100.00%
Other	$792	2.37%	$0	0.00%	($792)	-100%
Total HMIS costs	**$33,414**		**$77,963**		**$44,549**	**133%**
HMIS costs per person per year	$576		$1,344		$1,536	

SUMMARY: VILLAGE ON WILEY STUDY POPULATION

For the 29 Village on Wiley participants, expenditures by/for the 29 Village on Wiley residents totaled $4,701,084 during the two years prior to entering permanent supportive housing and then decreased to a total of $2,635,443 during the first two years in housing, resulting in a reduction of $2,065,642 in total costs. A Wilcoxon Signed Rank Test determined this reduction was not statistically significant, $z=1.31$, $p=.191$, with a small effect size ($r=.17$). The median score on the total costs decreased from $57,124 prior to housing to $45,774 after housing. Whereas the average cost prior to housing was $162,106 and $90,877 after housing. While not statistically significant, the post-housing costs for the Village on Wiley residents showed a *meaningful* decrease from the pre-housing costs for this group of homeless individuals who were provided permanent supportive housing. The lack of statistical significance simply means we cannot say with certainty that these findings can be replicated to other homeless populations who are provided similar permanent supportive housing.

The small number of participants in the sample and the wide range in outcome costs contribute to the lack of statistical significance in the data. The cost benefit for this group of 29 Village on Wiley residents was $71,229 (average decrease) per person,[xlix] with individual outcomes ranging from a cost savings of $1,139,707 to a cost increase of $100,809. These averages included participants who greatly benefitted from permanent supportive housing with cost savings of over $385,000. Removing these two largest savings, the average cost savings was a decrease of $18,647 per person, with individual outcomes ranging from a decrease in costs of $192,968 to an increase in costs of $100,809.

Endnotes

i Mini-International Neuropsychiatric Interview (M.I.N.I. 6.0); Statistically significant change; Related-Samples Wilcoxon Signed Rank Test, p<.05 CI.95

ii Ferrans and Powers Generic Quality of Life Survey

iii HMIS Income data; No income data available for one participant.

iv HMIS Income data; Statistically significant change; Related-Samples Wilcoxon Signed Rank Test, p=.000 CI.95

v Participating hospital data; statistically significant changes; Related-Sample Wilcoxon Signed Rank Tests CI.95 for total hospital costs (p=.002), emergency room costs (p=.024), and inpatient costs (p=.001).

vi Jacksonville Sheriff's Office data; Statistically significant change; Related-Sample Wilcoxon Signed Rank Test, p=.016 CI.95

vii Jacksonville Fire and Rescue Department data; Statistically significant change; Related-Samples Wilcoxon Signed Rank Test, p=.018 CI.95

viii HMIS Day and Night Shelter data; Statistically significant changes; Related-Sample Wilcoxon Signed Rank Test, p>.5 CI.95

ix HMIS Income Data; Statistically significant change; Related-Samples Wilcoxon Signed Rank Test, p=.000 CI.95

x Statistically significant change, p=.000 Related-Samples McNemar Test, CI.95

xi Statistically significant change, p=.000 Related-Samples Wilcoxon Signed Rank Test, CI.95

xii Statistically significant change, p=.005, CI.95, McNemar related samples test

xiii Statistically significant change, p=.002, CI.95, McNemar related samples test

xiv Statistically significant change, p=.000, CI.95, McNemar related samples test

xv Statistically significant change, p=.002 Related-Samples Wilcoxon Signed Rank Test, CI.95

xvi Statistically significant change, p=.024 Related-Samples Wilcoxon Signed Rank Test, CI.95

xvii Statistically significant change, p=.001 Related-Samples Wilcoxon Signed Rank Test, CI.95

xviii Not a statistically significant change

xix Statistically significant change, p=.016 Related-Samples Wilcoxon Signed Rank Test, CI.95

xx Statistically significant change, p=.016 Related-Samples Wilcoxon Signed Rank Test, CI.95

xxi MHRC: Statistically significant change, n=36; Related Samples Wilcoxon Signed Rank Test p=.008, CI.95

xxii Gateway: Statistically significant change, n=38; Related Samples Wilcoxon Signed Rank Test p=.011, CI.95

xxiii A duplicate search across behavior health providers found some duplication in services reported. These were identified by comparing participant's ID, and the dates, types, and costs of services. Duplicates were kept in the data provided by MHRC and Gateway but excluded from analysis of the data provided by Florida's Department of Children and Families and LSF Health Systems.

xxiv SFMHSA: Statistically significant change; Related Samples Wilcoxon Signed Rank Test p=.007, CI.95

xxv FQHC: Statistically significant change, n=41; Related Samples Wilcoxon Signed Rank Test p=.001, CI.95

xxvi FQHC: Statistically significant change, n=31; Related Samples Wilcoxon Signed Rank Test p=.036, CI.95.

xxvii FQHC: Statistically significant change, n=22; Related Samples Wilcoxon Signed Rank Test p=.000, CI.95.

xxviii FQHC: Statistically significant change, n=14; Related Samples Wilcoxon Signed Rank Test p=.008, CI.95.

xxix JSO: Statistically significant change, n=37; Related Samples Wilcoxon Signed Rank Test p=.001, CI.95.

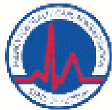
xxx JSO: Statistically significant change, n=37; Related Samples Wilcoxon Signed Rank Test p=.016, CI.95.

xxxi Jacksonville Sheriff's Office data; Statistically significant change; Related-Sample Wilcoxon Signed Rank Test, p=.016 CI.95
xxxii JFRD: Statistically significant change, n=36; Related Samples Wilcoxon Signed Rank Test p=.018, CI.95
xxxiii HMIS Income Data; Statistically significant change; Related-Samples Wilcoxon Signed Rank Test, p=.000 CI.95
xxxiv Statistically significant change, p=.042 Related-Samples Wilcoxon Signed Rank Test, CI.95
xxxv Statistically significant change, p=.021, CI.95, McNemar related samples test
xxxvi Statistically significant change, p=.039, CI.95, McNemar related samples test
xxxvii Statistically significant change, p=.031, CI.95, McNemar related samples test
xxxviii Statistically significant change, p=.002, CI.95, McNemar related samples test
xxxix Statistically significant change, p=.039, CI.95, McNemar related samples test
xl Statistically significant change, p=.027 Related-Samples Wilcoxon Signed Rank Test, CI.95
xli Not a statistically significant change
xlii Statistically significant change, p=.002 Related-Samples Wilcoxon Signed Rank Test, CI.95
xliii Not a statistically significant change
xliv A duplicate search across behavior health providers found some duplication in services reported. These were identified by comparing participant's ID, and the dates, types, and costs of services. Duplicates were kept in the data provided by MHRC and Gateway but excluded from analysis of the data provided by Florida's Department of Children and Families and LSF Health Systems.
xlv SFMHSA: Not a statistically significant change
xlvi FQHC: Statistically significant change, n=21; Related Samples Wilcoxon Signed Rank Test p=.005, CI.95
xlvi Statistically significant change, p=.001 Related-Samples Wilcoxon Signed Rank Test, CI.95
xlvi Difference between means was not statistically significant: Related-Samples Wilcoxon Signed Rank Test
xlvi Difference between means was not statistically significant: Related-Samples Wilcoxon Signed Rank Test

PILOT FUNDERS

PILOT EVALUATOR

PILOT PARTNERS



REPORTING AGENCIES

- Agency for Health Care Administration
- Baptist Health System
- Changing Homelessness
- City of Jacksonville Fire and Rescue Department
- Department of Children and Families
- Gateway Community Services
- Jacksonville Sheriff's Office
- Memorial Health
- Mental Health Resource Center
- St. Vincent's Health System
- Sulzbacher Center
- UF Health