

High Needs Family Evaluation: Fact Sheets

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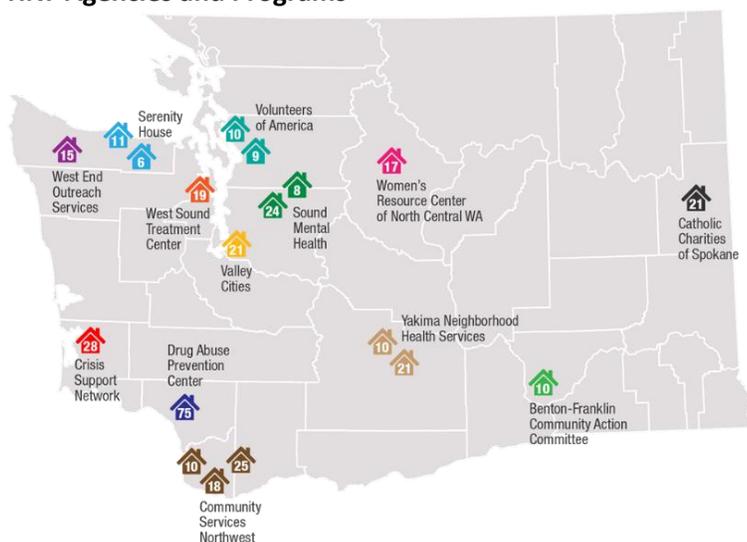
Executive Summary:

Findings from an Evaluation of the Washington Youth and Families Fund High Needs Family Program

Introduction

The High Needs Family (HNF) Program, operated by Building Changes as part of the Washington Youth and Families Fund, was initiated in 2008 to provide intensive services to families with a history of homelessness and multiple housing barriers. The program was designed to follow a “housing first”¹ and “harm reduction”², supportive housing approach. Families were provided with intensive case management (typically with case managers having fewer than 10 families on their caseloads), as well as services that address domestic violence, mental health, chemical dependency, and children’s needs, including mental health, education, and/or recreation. Fourteen agencies in Washington State operated 20 supportive housing programs with five year grants. A total of 216 units were rolled out over a five year period.

HNF Agencies and Programs



The HNF model highlighted key components and principles, but was not prescriptive in the specifics of the model due to the range of agencies supported, variation in the availability of services in the communities in which they were located, and fact that agencies had to find their own housing resources to implement the housing. HNF agencies ranged from large behavioral health agencies in urban settings with many services available on site and in the community to local community action councils in rural communities with few resources available on or off site. Agencies accessed either scattered-site vouchers or project-based, multi-family dwellings, the latter often in more rural areas.

Building Changes contracted with Westat, a national research and evaluation firm, to conduct an evaluation of the HNF program. A series of Westat evaluation reports provide a foundation of in-depth understanding of the study methods and program models, characteristics and needs of families served in the HNF program, changes in their use of health and behavioral health services, family stability, criminal justice involvement, and employment and receipt of benefits (available here: <https://www.buildingchanges.org/library-topic/high-needs-family-model>).

Characteristics and Needs of Families Served

¹ Housing first indicates families move into permanent housing directly from homelessness rather than spending a period of time in temporary, service-rich interventions, such as transitional housing, before entering housing.

² Harm reduction is an approach intended to reduce the adverse consequences and unsafe behaviors of substance among persons who continue to use substances by emphasizing a practical focus on the harm associated with substance use rather than idealized goal of abstinence.

Since September 2008, 385 families have received housing and services through the HNF program. The heads of households were almost all female and single, and primarily in their 20s to 30s, and predominantly white. The average family had 2-3 children, with most having one or more pre-school aged children. Almost half (42%) of the families served through the HNF program were separated from one or more of their children. Nearly all of the HNF families (96%) were homeless at least once in the past, with a median of 3 times.

Families entering the HNF program had an array of housing barriers and more so than generally found in other studies of supportive housing. Over 70% of the families were assessed to have three or more barriers. Seventeen percent had two barriers, and 12% had zero or one service barrier at baseline. The most common barriers were physical health problems, behavioral health issues, and criminal justice involvement. At program entry, 50% of heads of household reported chronic and on-going medical problems and 61% struggled with one or more mental health and substance abuse issues. In the two years prior to program entry, more than a third of the families' heads of household (37%) had been arrested and a third (34%) had been convicted of a crime.

Upon entry into the program, families had minimal incomes, with an average monthly income of \$512 and 60% receiving TANF. Few heads of household (12%) were employed upon entry, and primarily in part-time positions earning minimum wage.

Highlights of Findings from Longitudinal Assessment of HNF Families

Nearly 40% of the families exit the housing within the first 12 months.

Among the nearly 40% of families that exit from the HNF program within the first 12 months, half exit between 0 and 6 months and half between 6 and 12 months. The exit rate varies by agency and program. Numerous factors may affect programs' exit rates, including differences in: the parent agencies; program and housing rules, such as whether the housing is a clean and sober facility; and the populations targeted and served by the programs; and other unobserved family characteristics, such as families' relationships with program staff and families' desire to reside with significant others or relatives. Among respondent characteristics, those reporting a disability were likely to stay in the HNF program about three and a half months longer than respondents who did not report a disability and those with a positive screening for drug or alcohol problems left about five and a half months earlier, controlling on all other characteristics.

Those families who do stay in the housing 12 months or more experience a number of positive changes.

Families that stayed in the HNF program for at least 12 months experienced increases in residential stability and statistically significant improvements in employment, income, behavioral health, and family stability. Two-thirds of the families who stayed in the program did not move at all during the 12 months compared to the six months

HNF Evaluation Design

Guided Family Screening

Rigorous screening tool to ensure focus on families with multiple housing barriers

Collected Longitudinal Family Data

An in-depth assessment of changes families experience while in housing (administered every six months)

Assessed the "Fidelity" of Program Models

Implementation assessment of the operation of each supportive housing project

Assessed the Outcomes of Supportive Housing

Using state administrative data provided by Washington State's Department of Social and Health Services' (DSHS) Integrated Client Database (ICDB), examined the outcomes and costs for families the in the HNF program compared to families in two matched comparison groups: those entering emergency shelter and those entering public housing.

prior to entering the program, when 67 percent of families moved two or more times. The employment rate among respondents more than doubled, from 12 percent to 25 percent and families experienced an average increase of over \$100 in their monthly income. The percent of families that had children living away due to CPS involvement declined significantly, from 18% at baseline to 6% at 12 months. Fewer families reported experiencing recent physical or sexual abuse (from 23% at program entry to 10% at 12 months) and fewer families screened positive for substance abuse (from 18% to 9%). Moreover, families that stayed in the program for at least 12 months had significant increases in access to health care (from 80% having a routine source of preventive care at program entry to 95% 12 months later) and significant decreases in the unmet dental needs (from 62% at program entry to 45% 12 months later).

The majority of HNF sites operated programs with medium fidelity to the model.

An analysis of the sites’ “fidelity” of implementation to the model measured the extent to which the programs a) operated as housing first, b) promoted harm reduction, c) maintained caseloads of 10 or fewer, and d) offered on-site access to a set of core services.

- Five programs operated high fidelity programs (i.e., housing first, harm reduction, caseload of 10 or less, and three or more core services)
- Nine programs had medium fidelity--defined as either 1) having the same definition as high fidelity, but with less than three core services or 2) having two of the following traits: [being housing first, harm reduction, caseload of 10 or less] and with three or more core services, and
- Five programs operated with low fidelity—defined as either having 1) two of the following traits: [being housing first, harm reduction, caseload of 10 or less] and with less than three core services or 2) having only one of the following traits: [being housing first, harm reduction, caseload of 10 or less].)

Highlights of Key Comparative Findings

HNF FAMILIES COMPARED TO FAMILIES IN EMERGENCY SHELTER	HNF FAMILIES COMPARED TO FAMILIES IN PUBLIC HOUSING
<ul style="list-style-type: none"> • Increased access to mental health and substance abuse outpatient services • Higher ER use for children • Higher rates of family reunification • Lower rates of criminal justice involvement • Higher rates of TANF receipt 	<ul style="list-style-type: none"> • Increased access to mental health and substance abuse outpatient services • Higher ER use for heads of household

Families in the HNF program increased their use of behavioral health outpatient services once in HNF, more than comparable families in public housing and emergency shelter.

Once in supportive housing, HNF families’ significantly increased their access to mental health and substance abuse outpatient services. Less than half of the HNF families (49%) accessed mental health outpatient services in the 12 months prior to entering the program, increasing to 59% in the 12 months following entry. This increase was significantly higher than for similar families in public housing or emergency shelter whose use remained the same over both time periods.

Additionally, HNF families access to substance abuse outpatient services increased from 33% in the year prior to supportive housing to 41% in the year following entry into housing. In contrast, families in both public housing and emergency shelter experienced little if any increase (25% before and 24% after for families in public housing and 20% before and 23% after for families in emergency shelter) over time.

Inpatient treatment rates did not appear to be affected by HNF participation, but decreased for all families over time.

Somewhat surprisingly, HNF families increased their use of ER once in supportive housing more than other comparable groups.

HNF heads of household used the ER more after entering housing than they did in the prior year (65% to 69%), in contrast to heads of household in public housing whose ER use decreased over time (65% to 59%). HNF families used the ER at a higher rate (70%) for their children after entering supportive housing than in the 12 months before entering housing (63%) whereas, families in emergency shelter used the ER for their children at similar rates before (51%) and after (53%) entering shelter.

Hospitalization rates for HNF families remain consistent over time and comparable to families in shelter and public housing.

Two-thirds of the HNF families with children separated due to CPS reunified with their children in the 12 months after entering supportive housing, comparable to families in public housing but greater than families in shelter.

In the 12 months after entering housing, HNF families with children separated due to CPS were statistically more likely to reunify with their children than comparable families in emergency shelter. Two-thirds (67%) of the HNF families who entered the housing separated were reunited with one or more children, compared to only 23 percent of CPS separated shelter families. There were no differences in rates of reunification between HNF families and families in public housing (53%).

Within the 12 month follow-up period, four percent of HNF families experienced a new CPS separation, similar to the rates for comparable shelter families (6%) and public housing families (5%).

Following program enrollment, HNF families decreased their criminal justice involvement, more than families in shelter.

After entering the HNF program, families experienced a greater decrease in their involvement in the criminal justice system greater than similar families in shelter but comparable to families in public housing. In the 12 months following program entry, HNF families experienced similar declines in arrest rates to both families in emergency shelter and public housing (5%-7% for all three groups) and significantly fewer convictions than families in shelter. Incarceration rates were low for all three groups of families, both before and after entering the programs.

Families in supportive housing increase access to TANF greater than families who enter shelter and public housing; employment increases are comparable across the groups.

In the year following program entry, HNF families received TANF at a significantly higher rate than the year prior to program entry. Moreover, HNF families had significantly higher rates of TANF receipt than families in public housing and emergency shelter. Families in all three groups similarly increased their rate of employment during

this time period. A year after program entry, those HNF families who were working continued to earn low wages, comparable to the wages of families in emergency shelter but lower than families in public housing.

Families in programs that have greater fidelity to the supportive housing model than better outcomes than families in programs with more restrictive requirements.

Heads of households in program sites with high fidelity to the “ideal” HNF model had less ER use and less criminal justice involvement than families in other programs, after controlling on individual family differences. Additionally, while families in the HNF program were no more likely to exit housing within 12 months than comparable families in public housing, among HNF families, those in low fidelity program sites were more likely to exit the program than families in medium or high fidelity program sites. Moreover, families living in project based supportive housing were more likely to exit the program than families in tenant based supportive housing due to the inability to move. The number of services available does not relate to differences in families’ outcomes.

Families in the HNF program, as families in public housing and shelter, experience decreases in costs of services in most areas following program entry; HNF families, however, also incur case management costs.

With the exception of case management costs, the costs incurred by HNF families are comparable to the costs incurred by families in shelter and somewhat higher than incurred by families in public housing. Increases in costs for HNF families largely reflect increased access to and greater frequency of use of behavioral health services as well as increased access to financial services, such as TANF and Basic Food. For behavioral health services, however, the costs also reflect shifts in costs from inpatient to outpatient services. Families in emergency shelter experienced smaller increases in these areas and families in public housing experienced decreases in costs in all areas except financial benefits.

Summary

The HNF program was intended to provide housing and services to families that had histories of chronic homelessness and at least two co-occurring barriers, including serious and persistent mental illness, chemical dependency, domestic violence, trauma from violence, criminal histories, and/or Child Protective Services involvement. The goals of the program were to help families achieve improved access to and use of key services and supports, increased family stability or reunification, improved housing stability, improved health and behavioral health outcomes, improved educational and employment outcomes, decreased use of high cost crisis care and institutional care, and improved health and educational outcomes for children.

The data presented here indicate that program was targeting families with higher levels of service needs. On average, the families in the HNF program had:

- substantial histories of homelessness and residential instability;
- significant rate of child separation upon entry in to the program;
- low levels of educational attainment;
- high rates of physical and mental health issues, substance abuse and trauma needs; and
- a high rate of past criminal involvement.

Over half of the families (61%) who were enrolled in the HNF program stayed for 12 or more months. Of the nearly 40% families that exited within the first 12 months, half (20%) exited within six months of program enrollment. Families that exited the HNF housing in the first 12 months, compared to those who stayed, were more likely to have screened positive for drug or alcohol problems on the assessment tool at baseline, but less likely to report a health disability. Exits rates also varied significantly across the 20 sites. Differences in program

exit rates were likely due to variations in the type of housing provided (i.e., tenant vs. project based), variations in the needs of the families served, and/or the availability of other housing and service options in the community.

Families that stayed in the HNF housing for at least 12 months experienced a number of improvements over time, including improvements in housing stability, family reunification, employment, and behavioral health. The HNF program was especially helpful in helping families with housing barriers access behavioral health services, including outpatient substance abuse and mental health services.

Comparisons with similar families in public housing and emergency shelter suggest that housing itself is a powerful intervention and may help foster improvements for families even without special services. Compared to families in emergency shelter, HNF families had increased access to mental health and substance abuse outpatient services, higher rates of family reunification, lower rates of convictions, higher rates of ER use for children, and higher rates of TANF receipt. In contrast to families in public housing, families in the HNF program had fewer improvements. HNF families experienced increased access to mental health and substance abuse outpatient services and higher rates of ER use for the heads of household than families receiving housing without services.

These analyses also suggest that adherence to the tenets of supportive housing may lead to greater stability and improvements. Families in programs with higher fidelity stayed in the program longer, had lower rates of emergency room use for heads of household, and lower rates of convictions. Families in project based supportive housing had shorter stays in housing.

In the 12 months following program entry, HNF families accrued significantly higher costs for financial benefits (e.g., TANF, basic food) and mental health services than before entering the program, but significantly lower costs for substance abuse and criminal justice services. Some of these changes reflect HNF families' increased access to needed services (such as TANF and mental health outpatient services); others reflect a shift away from costly services, such as a shift from inpatient substance abuse treatment to less expensive outpatient services. With the exception of case management costs, the costs incurred by HNF families were comparable to the costs incurred by families in shelter and somewhat higher than families in public housing. Costs need to be considered in the context of the range of family outcomes so that matching families to housing and services can maximize both families' well-being and the efficient operation of homeless and housing service systems.

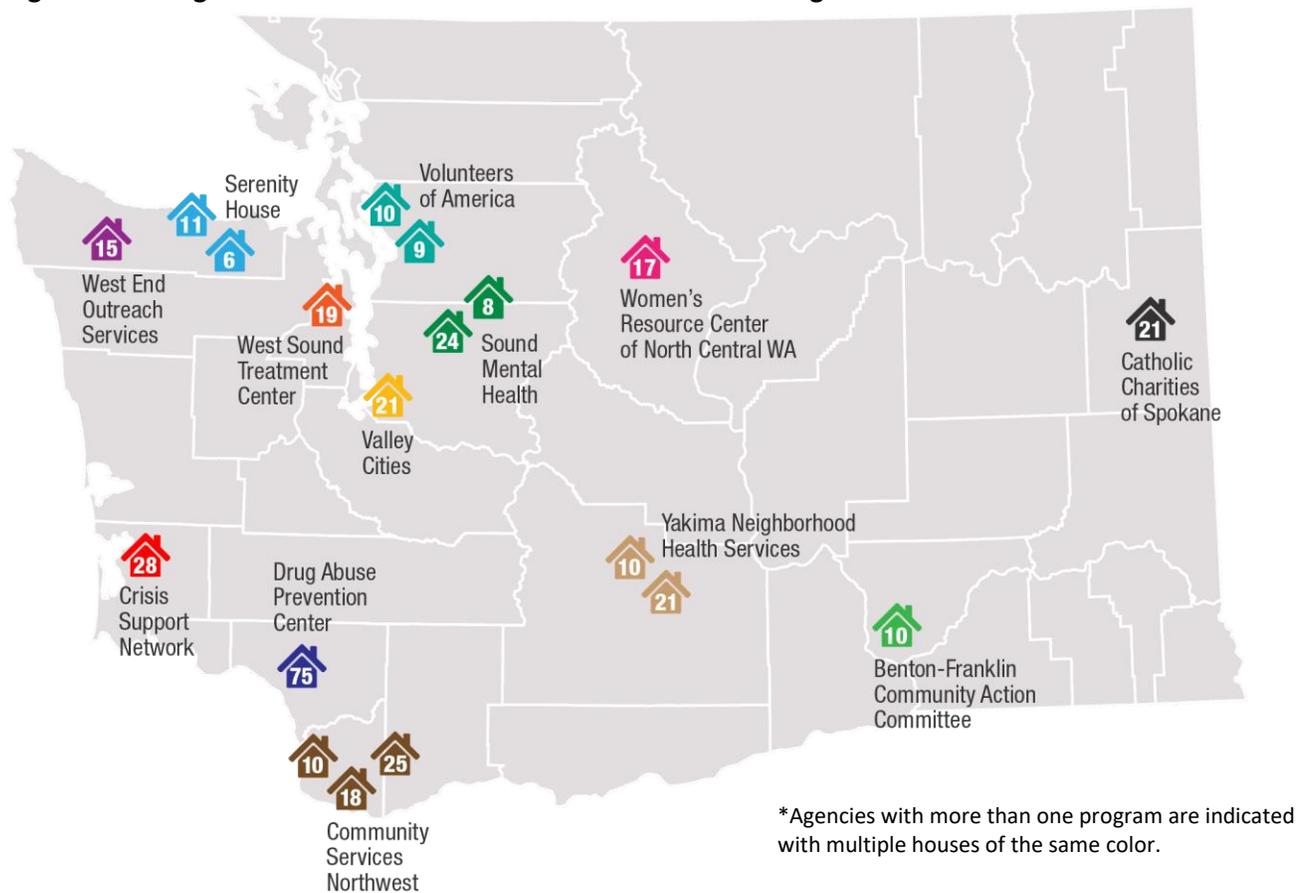
Evaluation of the Washington Youth & Families Fund High Needs Family Program Methodology

High Needs Family Program Background

The High Needs Family (HNF) Program, operated by Building Changes as part of the Washington Youth and Families Fund, provides housing and intensive services to families with a history of chronic homelessness and multiple housing barriers and service needs. Incorporating a housing first orientation as well as an emphasis on harm reduction, the HNF program aims to improve families’ housing stability and access to needed services, through which improvements are expected in families’ physical and behavioral health, educational attainment and employment, and preservation and/or re-unification with children.

Began in 2008, the HNF is now operating in 20 programs within fourteen agencies in 11 counties in Washington State. All agencies provide families with intensive case management, and access to a range of services including domestic violence, mental health, chemical dependency, and children’s services (including mental health, education, and/or recreation).

Figure 1. HNF Agencies and Number of Families Served in Each Program*



All HNF programs use the same screening tool to identify families who may need supports and services in addition to housing. Families are screened eligible if they had a history of chronic homelessness and at least two

current services needs and/or housing barriers. These include mental health and trauma, chemical dependency, criminal histories, need for reunification, and/or Child Protective Services involvement.

A total of 385 families enrolled in the HNF program on a rolling basis between September 2008 and January 2013, 358 of whom completed a baseline assessment.

Description of the Evaluation

Westat, a national research firm with extensive background in the evaluation of program and system-level interventions for homeless families, has conducted the evaluation of the HNF program since 2008. Nineteen programs across thirteen agencies participated in the evaluation.

The evaluation, with initial funding from the Bill and Melinda Gates Foundation, began in-depth assessment of the needs and outcomes of HNF families who remain in the program. With additional funding from the Robert Wood Johnson Foundation, Westat was able to add a fidelity assessment to the evaluation to learn more about the program's implementation within each agency, as well as access data through Washington State's Department of Social and Health Services (DSHS) integrated client data system (ICDB) to enhance the data on HNF families as well as construct matched comparison groups. Each of these components is described below.

In-depth Tracking of Families Served

Families complete an in-depth assessment with their case managers upon enrollment in the HNF program and every six months in the program. The assessment, developed by Westat in partnership with Building Changes, incorporates a number of standardized measures as well as some newly created items and indices about family composition and the head of household's demographic characteristics, education and employment history and status, housing and homeless history and status, criminal history and status, current legal issues, and current status for physical health, mental health, and substance abuse. The assessment asks questions about the health needs of all children in the household and an additional set of questions about school enrollment and performance and service needs of a single, randomly selected child in the household.

Westat trained case managers in each agency in how to administer the assessments as well as use the data for clinical purposes. Booster training sessions were conducted throughout the 5 year period of the evaluation.

For evaluation purposes, the baseline data provide an in-depth understanding of the characteristics and needs of all families who were served through the program and on-going data provide an understanding of the progress of families who stay in the program on a range of outcomes. Baseline data also provide the ability to conduct attrition analyses to understand the differences between families who stay in the program longer versus those who leave early.

Of the 385 families enrolled in the HNF program, 303 were eligible for the 12 month analysis; the remaining 82 entered the program within 12 months of the analysis cut-off date.

Of those eligible for the 12 month analysis, 59% stayed in the HNF program for 12 or more months, 20% exited within the first six months of the program and 21% exited between 6 and 12 months. Of those eligible for the 12 month analysis (and accounting for some missing data), we have six month follow-up data on 187 families and twelve month follow-up data on 143 families.

Program Implementation and “Fidelity”

The research team conducted abbreviated assessments of the programs in the first year of the evaluation to gain an initial understanding of the program and to provide early formative feedback to Building changes. Westat conducted more detailed ‘fidelity’ implementation assessments in the fourth year to continue to provide more feedback to Building Changes as well as collect data on the nature of the programs that could be incorporated into the family-level analyses. The assessment focused on each program’s client selection and enrollment; the structure, staffing, and operation of the overall program; the nature and intensity of services and housing provided, including detailed information on the caseload and process of case management; and partnerships with local housing and service providers. In addition, the assessment focused on understanding the nature of the agency that operates each program as well as the broader community context of each program. For 5 of the agencies, we also spoke with officials and staff from local housing authorities and the Division of Child and Family Services to learn more about the relationship of permanent supportive housing and these community providers.

Matched Comparison Group Design Constructed with State Data

DSHS’s ICDB provides data on recipients of services from a number of DSHS divisions (e.g., Alcohol and Substance Abuse, Children’s Services, Economic Services, Mental Health Services) as well as a range of other agencies, including the Department of Corrections, the Employment Security Department, and Community, Trade and Economic Development. Through this data system, information is available on demographic characteristics; usage and costs for health and behavioral health services; use of emergency shelter, transitional housing, and public housing (in King County); employment and wages; access to TANF, Medicaid, and SCHIP; and arrests, convictions, incarcerations, and juvenile detention.

Data from the ICDB were provided for HNF families up to two years prior to the month families entered the HNF program and for up to two years following program entry. The data were linked to their assessment data to allow for a greater understanding of their service use, benefit receipt, criminal justice involvement, and housing participation. These data afford the opportunity to examine service use and outcomes for families who exit the HNF program early as well as those who remain in the program.

ICDB data also provided the ability to construct two comparison groups through statistically matching (using propensity scoring) the characteristics and needs of HNF with two groups of homeless families:

- Families who entered shelter “as usual” during the study period (statewide); and
- Families who entered public housing (King County only).

The first group provides the ability to address how the outcomes of families receiving the HNF supportive housing compare with families who are “status quo”; that is, what would happen to families who otherwise were not offered supportive housing. The second group provides the ability to compare the outcomes of families who receive supportive housing with families who enter housing but do not receive any special designated set of services; thus, the analysis provides the opportunity to examine the value of services in addition to housing on families’ outcomes.

Description of Analyses and Products

Throughout the evaluation, annual reports have been generated using the assessment data to provide an understanding of the needs of the families served, the extent to which families received services to meet those needs, and the outcomes families achieved who stayed in the program.

With ICDB data, multivariate analyses (controlling on demographic characteristics and other key need variables) have been conducted to compare the changes in service and benefit receipt and outcomes of families who receive HNF to those of families who enter shelter as usual as well as those of families who enter public housing but receive no additional services in the housing. “Difference in difference” analyses are computed to understand the changes in families’ service use, benefit receipt, and outcomes from the 12 months prior to entering the program to 12 months following program entry. For certain services and benefits, including mental health, substance abuse, and TANF, monthly receipt is tracked. For employment, quarterly rates are tracked. All other services received and outcomes are measured as to whether or not they occur during the 12 month period.

Evaluation Caveats

The HNF is not a representative sample of all homeless families nor of all homeless families with multiple needs. Some programs gave priority to specific populations, such as families involved in the child welfare system, families that had children living away from the home, and families that had been chronically homeless and lived outdoors in tents.

State data were available only on a subset of the HNF population. Of the 358 families in the HNF program, DSHS was able to identify 310 families. This includes 216 families who consented to have their identified data included in the evaluation and an additional group of 94 HNF families who were not provided an opportunity to consent to include their DSHS data in the evaluation and for whom we received de-identified data. We are unable to link the assessment data and DSHS data for these 94 families.

Additionally, RDA was able to match the 310 HNF families to 310 comparable families from permanent housing, but they were only able to match a subset of 251 HNF families to 251 comparable families from emergency shelter.

State data are available only on heads of households and biological children. If there was an additional adult in the household, state data were not included on that adult’s service receipt, employment, or income in the analyses. This is true for both the HNF families and families in the comparison groups. Moreover, data are provided on all biological children of the head of household, regardless of whether they reside in the household. Data are not available on non-biological children (i.e., step children, foster children) in the household.

There may be unmeasured differences between HNF and comparison families. Propensity score matching is only able to address differences between the HNF sample and the two comparison samples on measures that are available in the data. Although we matched on measures that we think are critical (e.g., demographic characteristics, family composition, and service needs), there may be some differences between the families that we were unable to include in the matching process. For example, we do not know how long families were homeless before they entered shelter or housing and what services they may be receiving independent of DSHS services.

Variations in program implementation may affect family outcomes. The implementation data indicate that the HNF programs vary on a number of features. These factors include differences in the agencies that served them; program and housing rules, such as whether the housing is a clean and sober facility; differences in the populations targeted and served by the programs; and availability of services in the community in which the agency is located. Additional analyses will examine how these differences relate to family outcomes and how fidelity to the model relates to outcomes, controlling on other population differences.

Program Models Among Families Served in Permanent Supportive Housing: Findings from an Evaluation of the Washington Youth and Families Fund High Needs Family Program

Summary of Findings

Examination of the relationship between program characteristics and families' outcomes suggests that permanent supportive housing provided through a service enriched, low demand setting with a housing first approach may offer some additional benefits for families with multiple housing barriers than housing with more restrictive requirements. Heads of households in program sites with high fidelity to the "ideal" HNF model had less ER use and less criminal justice involvement than families in other programs, after controlling on individuals family differences. Additionally, while families in the HNF program were no more likely to exit housing within 12 months than comparable families in public housing, among HNF families, those in low fidelity program sites were more likely to exit the program than families in medium or high fidelity program sites. Moreover, families living in project based supportive housing were more likely to exit the program than families in tenant based supportive housing due to the inability to move. The number of services available does not lead to differences in families' outcomes.

The Washington Youth and Families Fund High Needs Family (HNF) Program, funded through Building Changes, provides housing and intensive services to families with histories of homelessness and at least two current or recent housing barriers, including mental health, substance abuse, HIV/AIDS, domestic violence, trauma from violence, recent criminal histories, and Child Protective Services involvement. Begun in 2008 and operating in 20 sites³ with fourteen agencies in Washington State, the program aims to improve families' housing stability and access to needed services, and in turn, families' physical and behavioral health, educational attainment and employment, and preservation or re-unification with children. The HNF model incorporates a housing-first orientation, with families moving into housing directly from homelessness. Moreover, housing is intended to be permanent and supplemented with onsite and community services, but tenancy is not dependent on service engagement. The model calls for strengths-based case management with a case manager to family ratio 1:10 or fewer, and a harm reduction approach to substance use. Harm reduction is intended to reduce the adverse consequences and unsafe behaviors of substance among persons who continue to use substances by emphasizing a practical focus on the harm associated with substance use rather than idealized goal of abstinence.

Organizations are funded by Building Changes through the Washington Youth and Families Fund to enhance services provided to families, primarily case management, and to draw upon a wide array of available on-site and community-based services. Agencies needed to access the housing resources for the supportive housing, typically through working with their public housing authorities and obtaining either project or tenant based subsidies.

Variation among the HNF Projects

The HNF model highlighted key components and principles, but was not prescriptive in the specifics of the model due to the range of agencies supported, variation in the availability of services in the communities in which they were located, and fact that agencies had to find their own housing resources to implement the housing. For example, HNF agencies ranged from large behavioral health agencies in urban settings with many

³ 19 programs across 13 agencies participated in the evaluation.

services available on site and the in community to local community action councils in rural communities with few resources available on or off site. Agencies accessed either scattered-site vouchers or project-based, multi-family dwellings, the latter often in more rural areas. Consequently, there is some variation in how the HNF model is implemented across the 20 sites. Table 1 outlines the types of agencies, number of units, type of housing, and services provided for each program.

Table 1. Program Overview

Program	Type of Agency	Location	Number of Units	Type of Housing	Services Provided Through Agency
Cornerstone	Housing	Rural	4	Project-based	Parenting, mental health, chemical dependency, childcare, children's behavioral health, children's recreational
Cornerstone FUP	Housing	Rural	11	Tenant-based	Parenting, mental health, chemical dependency, childcare, children's behavioral health, children's recreational
Families First	Mental health	Urban	20	Tenant-based	Parenting, life skills, mental health, chemical dependency, transportation, children's behavioral health
Family Housing Northwest	Housing	Urban	10	Project-based	Transportation, mental health, chemical dependency, employment
Family Housing Northwest 2	Housing	Urban	10	Project-based	Transportation, mental health, chemical dependency, employment
Family Housing Northwest 3	Housing	Urban	10	Project-based	Transportation, mental health, chemical dependency, employment
FIESTAS Lower Valley	Health (FQHC)	Rural	20	Project-based	Domestic violence, life skills, mental health, chemical dependency, employment, dental, medical, legal, children's behavioral health, parenting
FIESTAS Youth and Family Safety Net	Health (FQHC)	Rural	10	Tenant-based	Domestic violence, life skills, mental health, chemical dependency, employment, dental, medical, legal, children's behavioral health, parenting
Forward Bound	Mental health	Urban	14	Tenant-based	Parenting, life skills, mental health
FUP Housing First	Housing	Urban	5	Tenant-based	Mental health, chemical dependency, children's recreation, transportation, life skills
Home Base Connections	Housing	Urban	10	Tenant-based	Life skills, education, childcare, health
Homestead II	Mental health/chemical dependency	Rural	10	Tenant-based	Transportation, mental health, chemical dependency, children's behavioral health

Pacific Pearl	Housing (focus on DV)	Urban	15	Project-based	Transportation, children's recreation
Phoenix House	Chemical dependency	Rural	20	Project-based/ Shared housing	Life skills, chemical dependency, legal, children's recreation, transportation
Project Homestead	Mental health	Urban	15	Project-based	Life skills, mental health, chemical dependency, transportation, education, employment, children's behavioral health, children's recreation, children's education
Project Homestead II	Mental health	Urban	10	Tenant-based	Life skills, mental health, chemical dependency, transportation, education, employment, children's behavioral health, children's recreation, children's education
Sky Valley	Housing	Urban	5	Tenant-based	Mental health, chemical dependency, children's recreation, transportation, life skills
Strong Families	Housing	Rural	7	Tenant-based	Parenting, life skills, childcare
Walnut Corners	Housing	Urban	10	Project-based	Life skills, parenting, transportation, children's recreational, children's educational

Program Fidelity and Implementation

Westat conducted site visits to the HNF provider organizations during the summer of 2012 to assess the degree to which each project had "fidelity" of implementation to key features of the Building Changes supportive housing model. These features include whether the housing:

- Operates as 'housing first', with families entering housing directly from homeless, having housing that is permanent, and housing that is not contingent on service use
- Promotes harm reduction (an approach focused on reducing the adverse, 'harmful' consequences of substance use rather than requiring abstinence)
- Maintains case manager caseloads of 10 or fewer families each
- Offers on-site access to three or more of the following core services: parenting, mental health, chemical dependency, domestic violence, and children's behavioral health services.

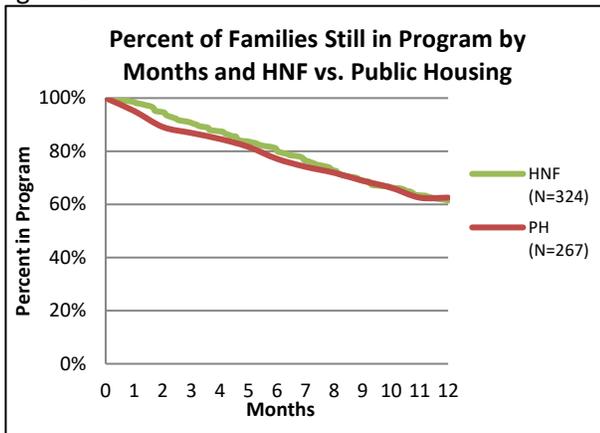
High fidelity programs have all these features, medium fidelity programs have 3 of them, and low fidelity programs have two or fewer. Fidelity groupings were made initially through qualitative classification and confirmed through the use of a quantitative approach (i.e., Latent Class Analysis).

Other characteristics of the programs examined included the type of housing provided (i.e., scattered-site or project-based), and the number of services provided on-site, in the families' homes or at the parent agency. These characteristics provide an understanding of the portability and permanence of the housing provided as well as an understanding of the extent to which there is broader service-enrichment in the housing.

How Do Program Fidelity and Other Program Characteristics Relate to Exit Rates and Family Outcomes?

We examined families' length time in the program and other outcomes and their relationship to program fidelity, housing type, and the number of services provided. Exit rates were provided by the programs. We used two different sources of data for families' outcomes. The first data source is self-reported assessment data, collected by program case managers, available on families who remain in the HNF program for 12 months and complete a 12 month assessment. These data are available for 47% (n=143) of the 385 families that were enrolled in the program. The second data source is family-level data from the Washington State DSHS' Integrated Client Database, available on 208 families (58% of the HNF sample) who consented to have their data accessed⁴. These data include both HNF families who remained in the program for 12 months or longer and those who exited before 12 months.

Figure 1.



The rate of exit within 12 months from the HNF program is high (39%) but comparable to the rate for similar families from public housing (37%) (see Figure 1). However, the exit rate varies by agency and program, ranging from 0 to 100%. Numerous factors may affect programs' exit rates, including differences in: the parent agencies; program and housing rules, such as whether the housing is a clean and sober facility; and the populations targeted and served by the programs; and other unobserved family characteristics, such as families' relationships with program staff and families' desire to reside with significant others or relatives.

Controlling on family demographic characteristics (i.e., gender, race, age), families in high or medium fidelity programs were less likely than families in low fidelity programs to exit the program before 12 months (see Figure 2), and families in project-based housing are more likely to exit the program before 12 months than families in scattered-site housing (see Figure 3).

Figure 2.

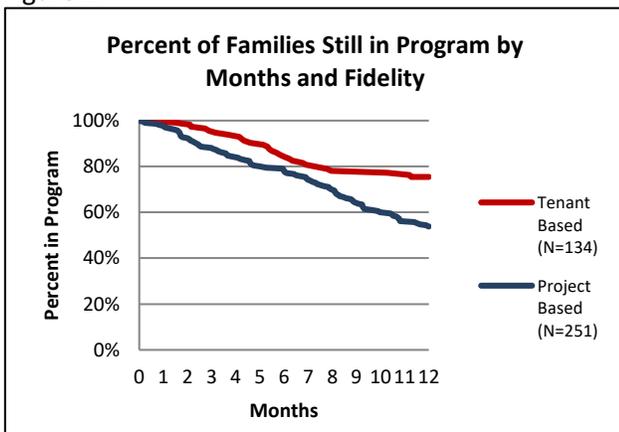
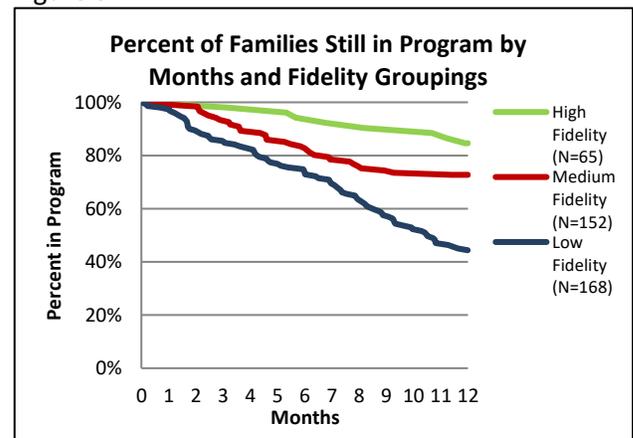


Figure 3.



⁴ Resources for accessing state data were available only mid-way through the data collection, therefore, not all families were asked their consent if they had already exited. Families on whom the data are missing include those who refused consent as well as a subset of the families who exited the program before consents were being sought.

Using both sources of data, we examined the relationship between fidelity to the program model, type of housing, and number of services available in the agency on families’ outcomes, including health and behavioral health service needs and use, TANF and earnings, child separations and reunifications, and arrests and convictions, controlling on family characteristics (i.e., gender, race, age) as well as prior measures⁵.

Few of these experiences and outcomes relate to fidelity or the other program characteristics. Families in high fidelity programs decreased in their use of the emergency room after being in the program for one year whereas families in low and medium fidelity programs increased in their use of ER (see Figure 4). Additionally, while the reason is unclear, families in medium fidelity programs were more likely to be convicted of a crime after being in the program for one year compared to families in high fidelity programs (see Figure 5). The number of services available in the agency does not affect families’ outcomes.

Figure 4.

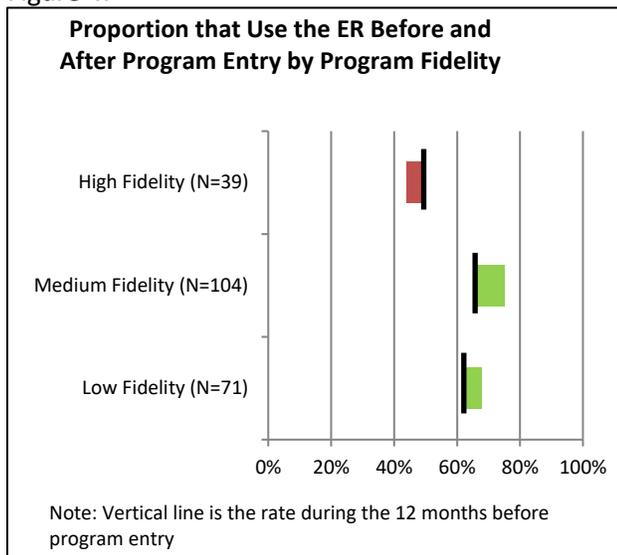
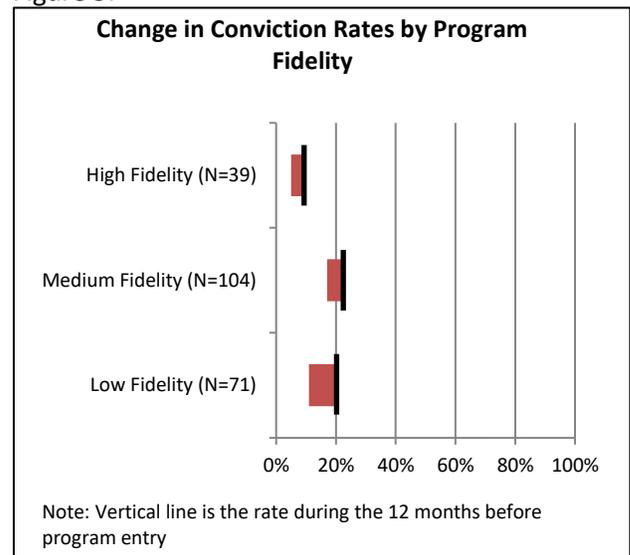


Figure 5.



⁵ Post-hoc Bonferroni corrections suggest that the findings may be due to chance for ER use, convictions, and higher likelihood of exit for families in project-based housing. The finding that families in high or medium fidelity programs were less likely to exit than families in low fidelity programs remained significant even after the correction.

Health Care Use Among Families Served in Permanent Supportive Housing: Findings from an Evaluation of the Washington Youth and Families Fund High Needs Families Program

Summary of Findings

Half of the families served through the High Needs Families (HNF) have chronic and on-going medical problems such as arthritis, asthma, and Hepatitis C, and many more have unmet dental needs. The vast majority of the families are medically insured and have non-emergency sources of care. Yet many continued to use the emergency room at the same rate they did prior to entering the program and at rates higher than comparable families in public housing and emergency shelter. HNF families' continued use of the emergency room may be due to long waits for primary care appointments, restrictions on what their insurance will cover, and perceived stigma of being homeless in a primary care clinic. Dental needs, a traditionally unmet need for homeless individuals, decreased some for HNF families after entering housing but remained high. Few affordable dental resources are available for poor families and insurance often does not cover preventive care or services other than extractions. The rate of hospitalizations is comparable for HNF families and families in both shelter and public housing and does not change significantly over time.

Physical Health Problems⁶

Half of the families entering the High Needs Families (HNF) program struggled with one or more medical problems, and 44% reported a medical disability. Arthritis, asthma, Hepatitis C, and diabetes were among the chronic or ongoing health problems reported. Ten percent of the heads of household have poor health functioning. These findings are consistent with other studies; for example, an evaluation of families in shelter in Washington State found 13% of heads of household had poor health functioning (Rog, Henderson, Stevens, & Jain, 2014), and families enrolled in the Minnesota Supportive Housing and Managed Care Pilot Program had, on average, two serious medical conditions (National Center on Family Homelessness, 2009).

Having multiple health barriers was one of the criteria that could make a family eligible for the HNF program; therefore, it is not surprising that many HNF families faced both behavioral as well as physical health challenges. Nearly half (49%) had both chronic or ongoing medical problems and a mental health problem; 19% have concomitant health and substance abuse problems.

One fifth of HNF families also reported having a child with a physical or mental/developmental disability.

Access to Preventive and Routine Health Care

The vast majority of HNF families were insured before and after entering the program and also reported having routine places where they could receive both preventive services and care for acute needs. At entry into the program, 89% of the families had medical insurance for themselves and 90% for their children. Eighty percent of the heads of household had a routine source of preventive care upon entry, increasing to nearly all (95%) after entering housing. Most children were connected to a routine source of health

Health Status and Needs of HNF Families

Heads of Household (90% female)

50% reported a chronic or on-going medical problem

10% had poor health functioning

9% were pregnant (upon entering housing)

62% had unmet dental needs

Children

20% reported having a child with a disability

⁶ The nature of physical health problems was part of a comprehensive in-depth assessment, administered to families by HNF case managers, upon enrollment in the HNF program and every six months thereafter. The baseline assessment was completed by 358 families enrolled in the HNF program and the 12-month follow-up assessment was completed by 143 families.

care both before entering the HNF program (94%) and nearly all (99%) one year after. A clinic or health center (71%) was the most common source of medical care, followed by a doctor's office or HMO (29%).

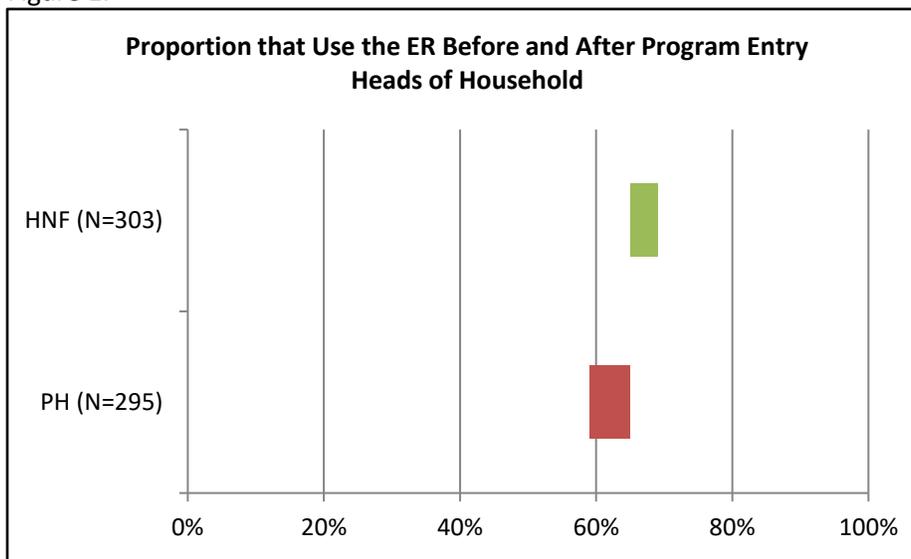
Although fewer families reported unmet dental needs after entering the HNF program (from 62% to 45%), the rate remained high. Families continued to suffer from cavities, broken and/or missing teeth, and overdue dental exams. Homeless families' high rate of dental needs is not new, but an area that community service systems fail to address in most areas across the country (Vujicic & Nasseh, 2014).

Use of Emergency Rooms

Families in the HNF program continued to use the emergency room (ER) at the same rate after entering supportive housing as they did before, despite having medical insurance, access to non-emergency sources of care, and resources within supportive housing to help them access these sources of care. In the year after entering supportive housing, over two-thirds of the heads of household (69%) used the ER at least once, compared to 65% in the year prior to entering housing. Additionally, more HNF families used the ER for their children (70%) in the 12 months after entering supportive housing than in the prior 12 month period (63%). Heads of household with chronic or on-going medical problems were more likely to use the ER for themselves following program entry; however, there is no relationship between children's disability or parent's medical problems and children's use of the ER. There is also no relationship between ER use among adults or children and demographic characteristics, such as age, sex, and race of the heads of household, or the number of adults in the household.

To understand how receiving supportive housing may affect families' ER use, we compared ER use of HNF families with the ER use of two matched samples of families: families who entered emergency shelter and families who entered public housing without receiving any additional services. We compared ER use of these groups for the heads of household and for their children, while accounting for differences in prior ER use and demographic characteristics.

Figure 1.



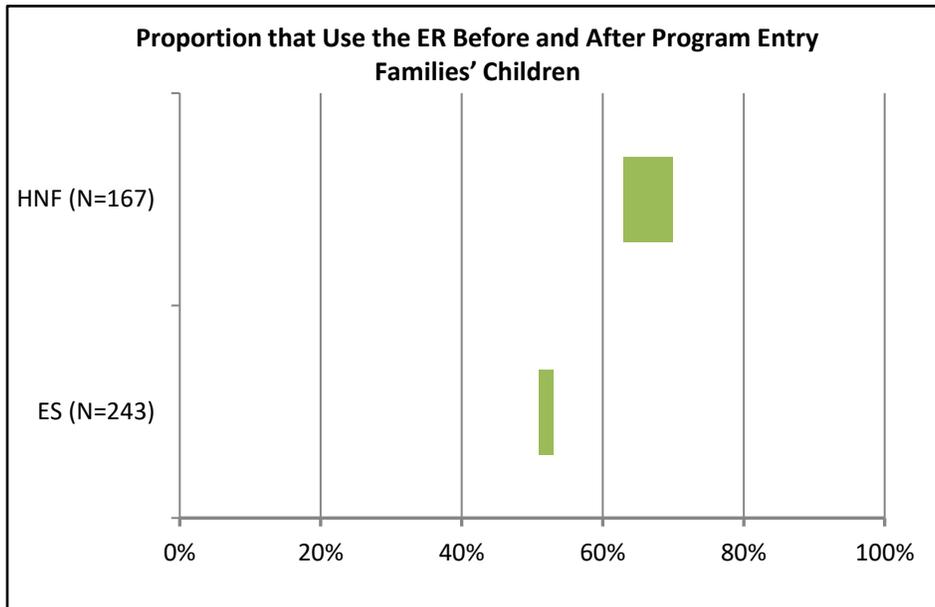
As Figure 1 shows, there is a significant difference in ER use over time between heads of household in the HNF program and in public housing. Heads of household in public housing used the ER less in the year after entering housing than in the year before (65% to 59%), whereas HNF heads of household used the ER more after entering housing than they did in the prior year (65% to 69%). ER use did not differ between heads of household in emergency shelter and those in

the HNF program [results not shown].

ER use differed for families served by different types of supportive housing programs. Families used ER less in programs that reflected the preferred model of supportive housing (defined as having housing first, a harm

reduction approach, a caseload of 10 or less, and access to three or more core services at the parent agency) than families served by programs that were less like the preferred model. Other factors, including age, sex, and race of the heads of household, as well as whether the family lived in an urban county vs. a rural county were not related to ER use.

Figure 2.



Families in the HNF program also used the ER for their children more than comparable families in emergency shelter. HNF families used the ER at a higher rate (70%) for their children after entering supportive housing than in the 12 months before entering housing (63%). In contrast, families in emergency shelter used the ER for their children at similar rates before (51%) and after (53%) entering shelter. Children's ER use did not differ significantly between families in public

housing and the HNF program, nor were there significant differences in children's ER use across the HNF program models.

Hospitalizations

HNF families' rate of hospitalizations is comparable to that for families in both shelter and public housing and does not change significantly over time. Nearly a fifth of the HNF heads of household (18%) were hospitalized in the year after entering supportive housing⁷, fewer than the 22% that were hospitalized in the prior year. These rates are similar to those for adults in emergency shelter (22% before and 21% after). Adults in public housing had slightly higher rates of hospitalizations in the year before entering housing (27%) and lower rates in the year following housing (16%) but the change is not significantly different from those in the HNF program.

Fourteen percent of the HNF families had one or more children hospitalized in the year after entering housing, similar to the prior year rate of 15%, and similar to the rates for children in emergency shelter (15% before and 14% after). Rates of hospitalizations for children in the HNF program and children in public housing also were similar. Children in public housing decreased from 15% before entering housing to 7% following, but the change is not statistically different from that of HNF children, once demographic characteristics are considered.

Summary

Despite high rates of access to health insurance and non-emergency sources of care, families participating in the HNF program continued to use the ER for medical care. Heads of household in public housing experienced a decrease in ER usage after entering housing, whereas HNF families experienced an increase. Similarly, more

⁷ Although we do not know the reasons for these hospitalizations, 9% of HNF families were pregnant at program enrollment and the majority of these women had at least one hospitalization in the 6 months following program entry.

children in HNF families used ER following program entry than children in emergency shelter. Differences in ER usage may be due to several factors, including the access to quality case management services in shelter/housing, the availability of non-emergency medical services in the community, and the level of service need of families in the different types of housing. Hospitalization rates stayed relatively the same over time for both adults and children in the HNF program, public housing, and emergency shelter.

Behavioral Health Care among Families Served in Permanent Supportive Housing:

Findings from an Evaluation of the Washington Youth and Families Fund High Needs Families Program

Summary of Findings

The High Needs Family (HNF) Program helped families connect with needed behavioral health services. Once in supportive housing, more families had increased access to and more frequent use of mental health and substance abuse services than they had prior to entering the program. This increase in access and use was significantly higher for HNF families than for similar families who received services as usual in either public housing or emergency shelter. Moreover, families who stayed longer in HNF were more likely to access the services than families who exited within their first year. Hospitalizations rates did not appear to be affected by HNF participation, but decreased for all families over time.

Mental Health and Substance Abuse Concerns

Behavioral problems were among the possible entry criteria for the High Needs Families (HNF) program. It is not surprising, therefore, that the majority of the HNF families' heads of household struggled with one or more mental health and substance abuse issues.

Anxiety and depression were common concerns for approximately half of the heads of household (90% female), with a quarter having poor mental health functioning. Few of the HNF families (5%) appeared to have psychotic disorders, consistent with other studies of homeless families. More than a quarter of the heads of household had been hospitalized in their lifetime for a mental health concern, and 6% in the six months prior to entering the program. Trauma likely is related to mental health issues for some of the families, with 88% of the heads of household reporting an experience of physical or sexual abuse in their lifetime, and 23% in the past six months.

Substance abuse conditions are difficult to assess. Heads of household are often worried about the consequences that may result from revealing alcohol and drug use, let alone abuse. Families may under-report substance use due to perceived stigma and concerns about jeopardizing one's housing. Therefore, self-reported data on use are suspected to be underestimates; reports of treatment may be more accurate indicators of substance abuse problems. One fifth of the heads of household revealed substance abuse issues based on self-report measures, yet nearly a third received substance abuse treatment in the past six months and over half received treatment at least once in their past.

Access to Mental Health Outpatient Services

The HNF program has helped families access mental health outpatient services. After entering the program, more families received mental health services and at rates greater than matched families in both emergency shelter and public housing. In the year after entering supportive housing, 59% of the HNF families received mental health outpatient services at least once, up from the 49% in the year prior to entering housing. Families

Behavioral Health Needs of HNF Heads of Household

Mental Health (MH)

61% had a MH indicator

- 47% moderate/severe depression
- 51% moderate/severe anxiety
- 24% poor MH functioning

27% experienced MH hospitalization in their lifetime

6% experience MH hospitalization in past 6 months

Substance Abuse (SA)

22% screened for abuse

61% received SA treatment in their lifetime

32% received SA treatment in past 6 months

entering public housing and emergency shelter, however, did not increase their access to or use of mental health services (53% to 52% for public housing, 40% to 40% for emergency shelter).

Figure 1.

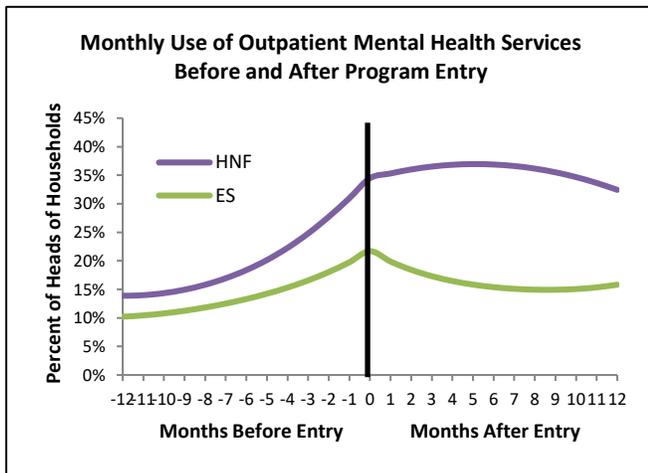
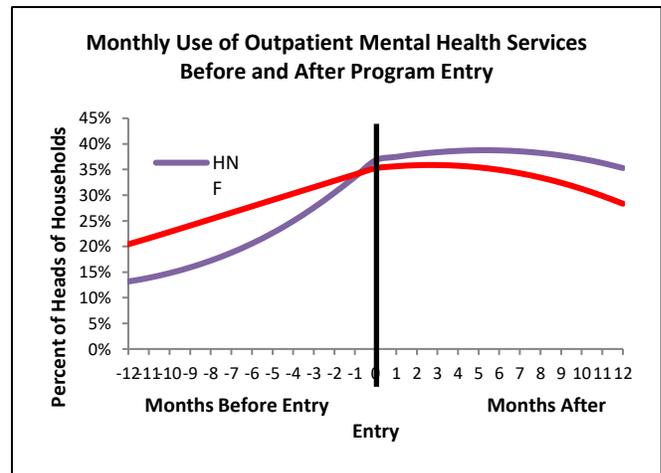


Figure 2.



Families also received services more frequently after entering the HNF program than they had prior to the program, and more often than families in shelter. As Figure 1 shows, HNF families' monthly use of mental health outpatient services spiked after entering housing and stayed high for the 12 months following program entry. In contrast, families in emergency shelter showed little change in their monthly use of these services before and after program entry. However, families in public housing used outpatient services at monthly rates similar to HNF families both before and after entry into housing (see Figure 2).

Access to Substance Abuse Outpatient Services

The evaluation reveals a similar pattern of increased access and use of substance abuse services for HNF families. After entering the HNF program, more HNF families were connected to substance abuse outpatient services and used them more often than they had before they entered the program. Moreover, their access and use of services was significantly higher than matched families in both shelter and public housing. Specifically, for access, 41% of HNF heads of household accessed substance abuse outpatient services in the year following entry into housing, an increase from 33% in the year prior to supportive housing. In contrast, families in both public housing and emergency shelter experienced little if any increase (25% before and 24% after for families in public housing and 20% before and 23% after for families in emergency shelter) did not experience this same increase over time.

Figures 3 and 4 show frequency of use of substance use outpatient services. HNF families had significantly greater increases in their monthly rate of receipt of outpatient substance abuse services than comparable families in public housing and emergency shelter. This increase was especially pronounced in first few months after entering housing and diminished over time.

Figure 3.

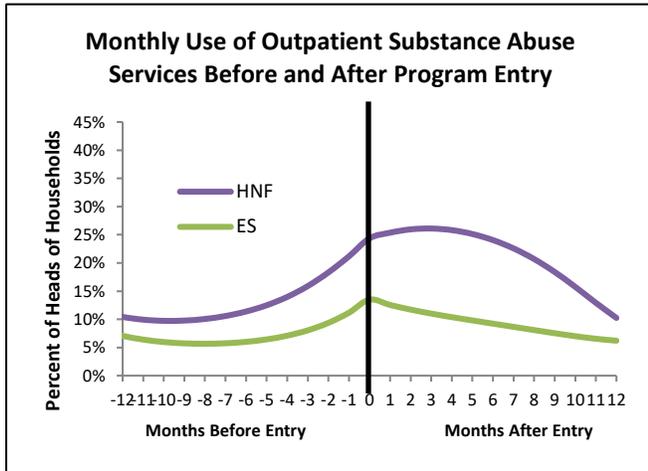
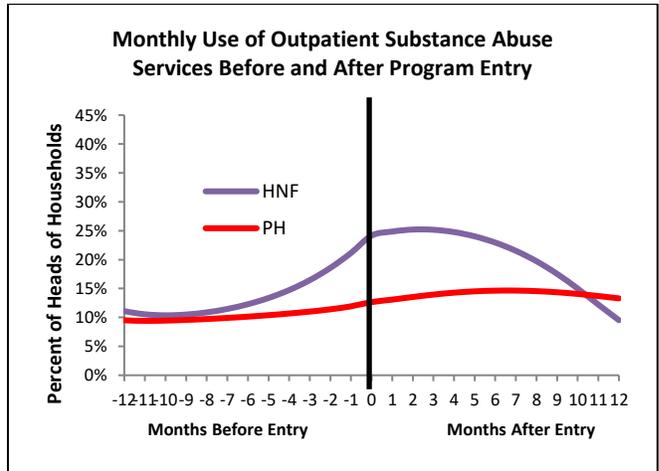


Figure 4.



Access to behavioral health services among HNF families is related to several factors. First, families who reported mental health and/or substance abuse issues were more likely to be connected to either type of outpatient services than families who did not report these issues. Second, families were more likely to be connected to substance abuse services if they were in supportive housing programs operated by behavioral health providers than operated by general housing providers; however, access to mental health outpatient services did not differ by type of housing provider. Finally, families that stayed in the program longer compared to those that left earlier, were more likely to receive substance abuse services, but no more likely to receive mental health services. Access to substance abuse services was not related to access to mental health services.

Mental Health and Substance Abuse Inpatient Hospitalizations

Heads of household in HNF families had fewer mental health and substance abuse hospitalizations over time, similar to the rates of hospitalizations for comparable families in public housing and emergency shelter. HNF heads of household's rates of mental health hospitalization decreased from 12% to 7% from the year before and after supportive housing, comparable to the decreases experienced by families in public housing (11% to 6%) and families in emergency shelter (17% to 13%). HNF families also had fewer substance abuse hospitalizations overtime, decreasing from 23% to 17%. This change is not significantly different from the changes in hospitalization over the same time periods for families in public housing (13% to 7%) and families in emergency shelter (7% to 11%).

Income and Employment among Families Served in Permanent Supportive Housing:

Findings from an Evaluation of the Washington Youth and Families Fund High Needs Family Program

Summary of Findings

The High Needs Family Program serves families with multiple housing barriers and service needs. Upon entry into the Program, families had minimal incomes, with 60% receiving TANF and few working upon entry. Those who were working at program entry earned a little more than minimum wage through part-time positions. A year after entering the program, families' rate of TANF receipt increased significantly more than comparable families in public housing and shelter. Their rate of employment also increased but was similar to that of comparable families in public housing and shelter. A year after program entry, those families who were working continued to earn low wages, comparable to the wages of families in emergency shelter but lower than families in public housing. Overall, supportive housing, compared to both public housing and shelter, helps families access TANF, but has no additional effect on employment.

Income and Employment upon Entry into the High Needs Family Program

High Needs Family (HNF) Program families have minimal incomes, with an average monthly income of \$512 at program entry. TANF was the most common source of income, with 60% of families reportedly receiving it in the last 30 days. Other common sources of income were child support (14% of families), income from employment by themselves or a family member (12%), and SSI or SSDI for themselves or someone else in their families (7%). Fourteen percent of families reported having no income.

Few heads of household (12%) were employed when they entered the program. A third indicated not being able to work, most commonly citing mental or physical disabilities. Those who were working earned about \$10 an hour (average \$9.38), with wages ranging from \$8.07 to \$15.00 per hour. Most of the jobs were part-time (74%) and were primarily in food service, clerical occupations, sales, and cleaning/housekeeping occupations. About half of the respondents held permanent jobs (53%).

Examining Changes in TANF Receipt and Employment

TANF Receipt: HNF families received TANF at a higher rate in the 12 month period after entering the program than the 12 month before and had significantly higher rates than families in public housing and emergency shelter. Compared to both comparison groups, HNF families' increase in TANF receipt was highest in the few months after entering the program, with the differences diminishing over time (Figure 1 and Figure 2). The maximum rate of TANF receipt in the 12 month period for HNF families after entering the program was 65%.

Employment and Income

Employment

12% employed at time of interview

95% employed in their lifetime

33% unable to work

48% receive employment services

Income (in past 30 days)

Mean total income of \$512

60% received TANF

14% received child support

Figure 1.

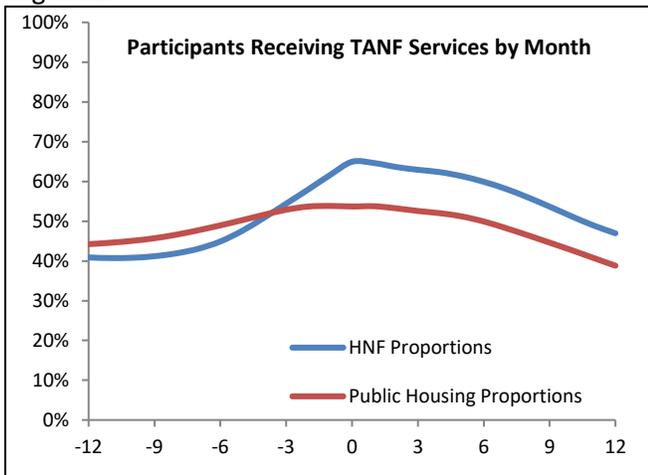
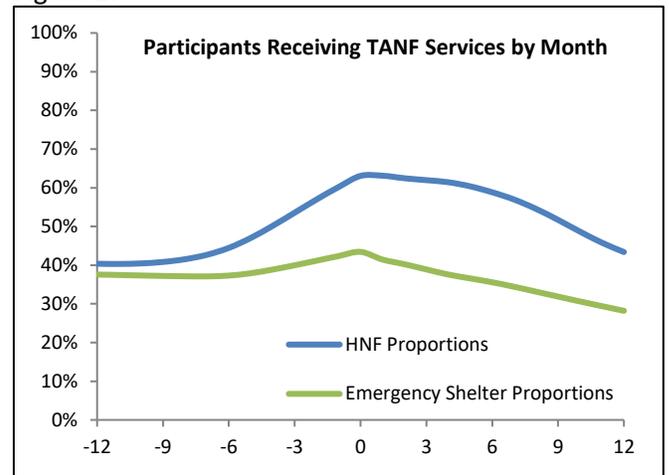


Figure 2.



Employment Changes: Over time, HNF families were employed at similar rates to comparable families in public housing and emergency shelters (Figures 3 and 4). As Figure 3 and Figure 4 indicate, about 20% of the HNF heads of household were employed a year prior to entering the program, declining at the point of entering the program, and then returning to the 20% level a year after program entry. Less than 2% were employed for both years and 7% were employed for the year following entry into housing.

Figure 3.

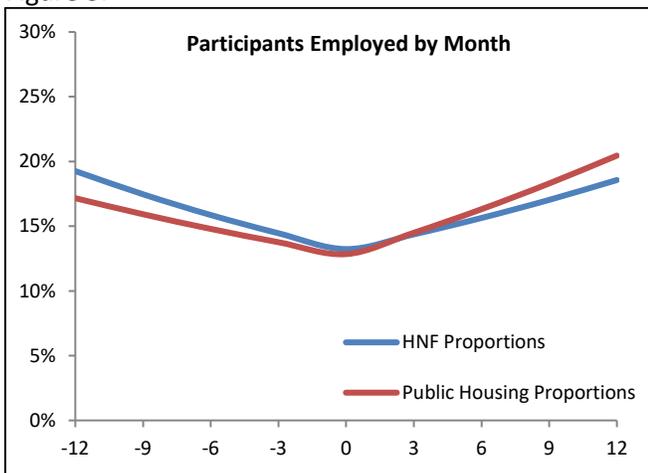
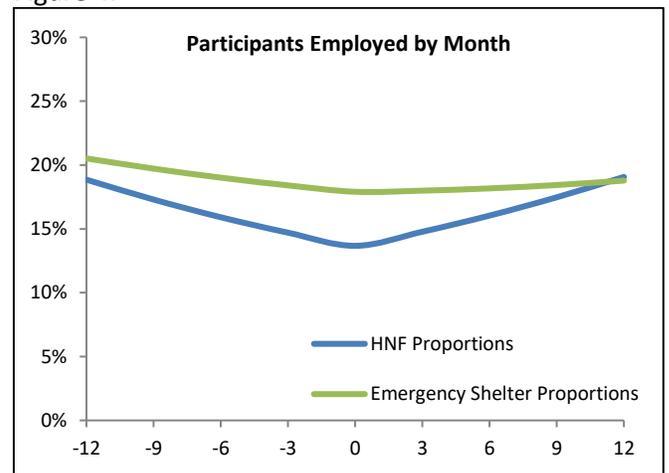


Figure 4.



Earnings Changes: HNF families experienced little change in average wage over time. In fact, following entry into housing, the average hourly wage of HNF families decreased while the average hourly wage of families in public housing continued to gradually rise (Figure 5) and that of the families in shelter remained about the same (Figure 6). One year following program entry, HNF families' average wage was \$10.31 (ranging from \$8.36 to \$20.24), significantly lower than the public housing families' average wage of \$12.43 an hour and comparable to emergency shelter families' average wage of \$10.17.

Figure 5.

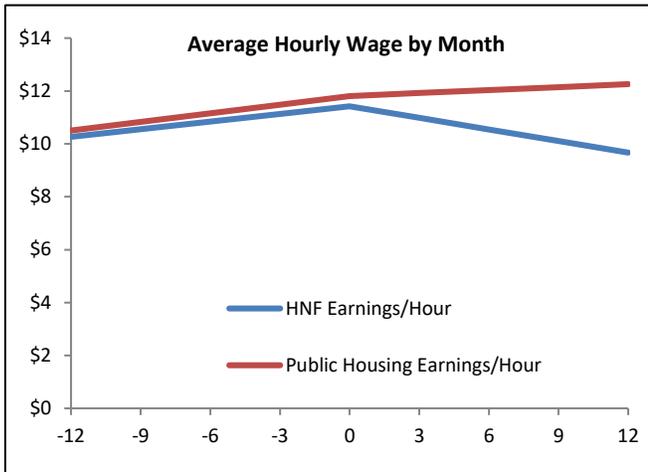
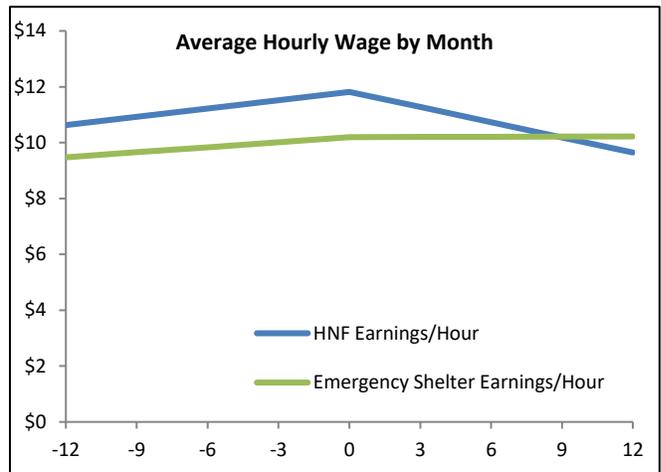


Figure 6.



Relationship between Employment and TANF: Employment and TANF receipt are related for the HNF group and the two comparison groups. As expected, TANF receipt is highest when fewer families are employed and lower when more families are employed. For HNF families, the odds of receiving TANF were 77% lower for families who were employed. The relationship between TANF and employment is similar for families in public housing (83% lower odds of receiving TANF when employed) and for families in emergency shelter (66% lower odds of receiving TANF when employed).

Family Stability and Child Welfare Involvement among Families Served in Permanent Supportive Housing:

Findings from an Evaluation of the Washington Youth and Families Fund High Needs Families Program

Summary of Findings

At program enrollment, almost half of the families served through the High Needs Families (HNF) program were separated from one or more of their children. Sixteen percent were separated due to CPS involvement and 10% had a child in foster care. In the 12 months after entering housing, HNF families are statistically more likely to reunify with their children separated due to CPS than comparable families in shelter. There are no differences in rates of reunification between HNF families and families in public housing.

The Role of Supportive Housing in Fostering Family Reunification and Preservation

Children in homeless families are disproportionately vulnerable to being separated from their parents than children in poor domiciled families (Cowal, Shinn, Weitzman, Stojanovic, & Labay, 2002). They are more likely to have voluntary separations, child welfare involvement, and placement in foster care (Cowal et al, 2002; Park, Metraux, Brodbar, & Culhane, 2004). Supportive housing has been suggested as an intervention for homeless families involved in the child welfare system, especially those who need reunification.

To date, there has not been strong evidence on the role of supportive housing to provide to decision makers. Although several evaluations of supportive housing have been conducted (National Center on Family Homelessness, 2009; Nolan et al, 2005; Harburger & White, 2004; Farrell, Britner, Guzzardo, & Goodrich, 2010), most have been descriptive (lacking comparison groups), and have had populations that have ranged in their needs, with some likely not needing the intervention. A notable exception is a longitudinal study that found children in supportive housing had fewer out of home placements over time and lower rates of child protection involvement than children in similar homeless families receiving services as usual (Hong & Piescher, 2012).

The High Needs Families (HNF) Program serves families who have struggled with chronic homelessness and have multiple housing barriers and service needs. One of the areas of particular focus is on families in need of reunification as well as families with broader involvement in the child welfare system. All HNF programs screen for family separations and child welfare involvement, and six of the projects give priority to families involved in the child welfare system (one of which targets families that have children living away from the home either in foster care or with someone else). Four of these six projects provide housing through Family Unification Program (FUP) vouchers. In order to be eligible, families must show some risk of child abuse or neglect in connection with homelessness or unstable housing. Families who have a need for behavioral health services, such as mental health, trauma, and chemical dependency services, may have priority in obtaining the voucher.

Family Separations in the HNF Family Population

Nearly half (42%) of the families entering the HNF program had one or more children living away, accounting for 272 children. About 20% of families had more than one child living away. Children were living away for a variety of reasons (e.g., the other parent had custody, court or CPS removal, the child was staying with others while the family was homeless). Fourteen percent of the children were living with their other parent, 10% were living with a relative, and 8% of children were living in a foster home.

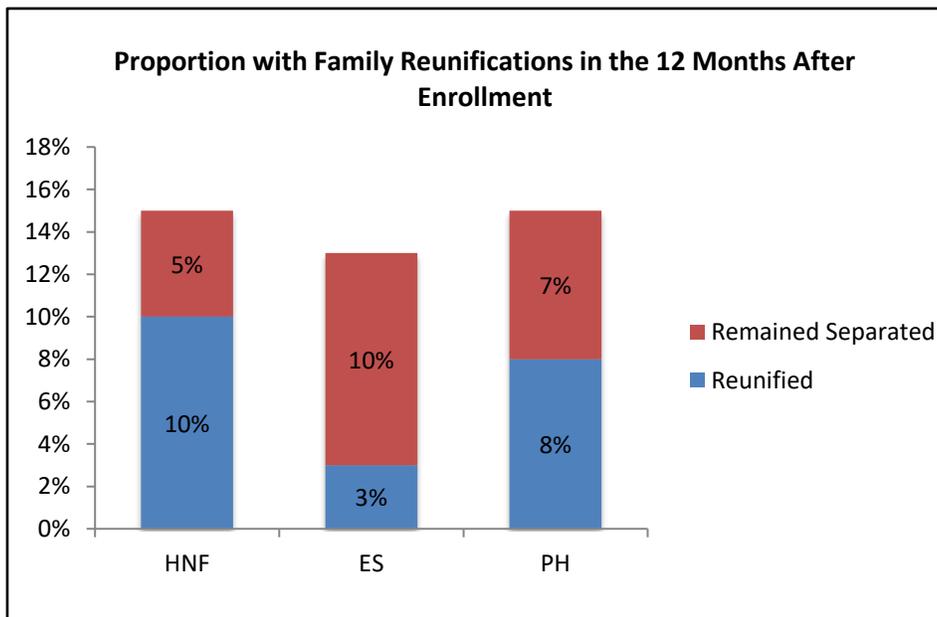
Child Welfare Involvement

According to Children’s Administration records⁸, 15% of HNF families entered supportive housing with a child separated by CPS. Among the reasons noted for the separations included neglect, a caregiver’s inability to cope, drug and alcohol abuse, physical and sexual abuse, and inadequate housing. Separations are often due to a combination of these factors. Children were out of the home ranging from less than a week to 3 years, with an average of about 1 year.

Comparison with Families in Emergency Shelter and Public Housing

To understand how receiving supportive housing may affect families’ stability, we compared the extent to which HNF families involved with CPS became reunified with two matched samples of families: families who enter emergency shelter and those who enter public housing but do not receive any additional services.

Figure 1.



HNF families with a CPS separation are statistically more likely to reunify with their children 12 months after entering supportive housing than families in shelter. As Figure 1 shows, two-thirds of the HNF families who entered the housing separated are reunited with one or more children, compared to only 23% of CPS separated shelter families.

The rate of family reunification for HNF families during the 12 months period

following housing entry was similar to that of families in public housing, and suggests that housing itself (with or without supports) may be a key factor. Half of the 16% of families who entered public housing with one or more children away were reunited.

Within the 12 month follow-up period, four percent of HNF families (13 children) experienced a new CPS separation, similar to the rates for comparable shelter families (6%) and public housing families (5%).

⁸ We received Children’s Administration data on a subset of HNF families. This accounts for the slight differences in numbers.

Criminal Justice Involvement among Families Served in Permanent Supportive Housing:

Findings from an Evaluation of the Washington Youth and Families Fund High Needs Family Program

Summary of Findings

After entering the High Need Families Supportive Housing program, participants experienced a decrease in involvement in the criminal justice system greater than similar families in shelter but comparable to families in public housing. In the 12 months following program entry, HNF families experienced similar declines in arrest rates to both families in shelter and those in public housing and significantly fewer convictions than families in shelter. Incarceration rates were low for all three groups of families, both before and after entering the programs. The findings suggest that housing, supportive or otherwise, may provide a protective factor for families facing conviction, perhaps connoting some level of stability that weighs in their favor for staying out of the criminal justice system.

Criminal Justice Involvement

One of the High Need Families Program possible selection criteria that can operate as a barrier to housing is recent criminal justice involvement. Previous studies have found that families with an adult with past felonies are often ineligible for subsidized housing (Shinn, 2010). Further, current criminal activity can lead families to be evicted from subsidized housing and/or terminated from housing programs (Regional Research Institute, 2009).

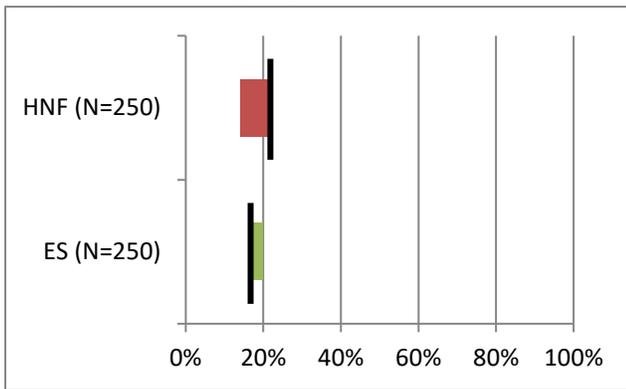
In the two years prior to program entry, more than a third of the families' heads of household (37%) had been arrested and a third (34%) had been convicted of a crime. These rates of criminal justice involvement for HNF families are higher than those for homeless families in other supportive housing programs (Arthur Andersen, 2002); for example, 17% of the families in the Connecticut Supportive Housing Demonstration Program had convictions in the 24 months prior to entering housing.

Earlier descriptive evaluations find that after entering supportive housing, families experience decreases in the number of police contacts, arrests, and costs associated with criminal justice involvement (Mondello, Gass, McLaughlin, & Shore, 2007). What has not been examined, however, is the extent to which supportive housing may be more beneficial in helping families reduce their criminal justice involvement than the status quo of shelter as well as housing alone without specific supports.

Criminal Justice Findings

Following entry into the HNF, heads of households experienced a decrease in their involvement in the criminal justice system, similar to the decreases documented in previous studies of supportive housing. Moreover, HNF families experienced a greater decrease in convictions than a comparable group of families entering emergency shelter but a similar decrease to that experienced by families in public housing. HNF, emergency shelter, and public housing families all had fewer arrests in the 12 months after entering the setting than they had in the previous 12 months (6% difference in the arrest rate for HNF families, 5% difference for the emergency shelter comparison group and 7% for the public housing comparison group.). However, in the 12 month period after entering housing, 7% fewer HNF families experienced convictions than the prior 12 month period. Three percent more emergency shelter families experienced convictions in this time frame (see Figure 1). Public housing families experienced a decrease in convictions similar to HNF families, with 6% fewer families experiencing convictions across the two time periods. All three groups had extremely low incarceration rates (less than 1%) for both time periods before and after entering housing, and thus, little change was noted.

Figure 1. Change in Conviction Rates, for Heads of Household before and after Program Entry, HNF Families Compared to Emergency Shelter Families



Note: Vertical line is the rate during the 12 months before program entry.

Summary

The HNF findings suggest that, for families with criminal justice involvement, housing, with or without supports, may deter judges some from convicting families if they view them on a track toward stability whereas heads of household in shelter may be subject to greater scrutiny. These findings add to existing evidence of the role of housing in decreasing criminal justice involvement for families.

Service Costs for Families in Permanent Supportive Housing:

Findings from an Evaluation of the Washington Youth and Families Fund High Needs Family Program

Summary of Findings

Permanent supportive housing can offer numerous benefits to homeless families with multiple housing barriers, including increased access to mental health and substance abuse outpatient services, higher rate of family reunification, lower rates of criminal justice involvement, and higher rates of TANF receipt (Westat, 2017). Analyses of the costs associated with serving families through the High Needs Family (HNF) permanent supportive housing program indicate that, following program entry, HNF families accrue higher costs for financial benefits (e.g., TANF, basic food) and mental health services than before entering the program, but lower costs for substance abuse, acute health care, criminal justice, and child welfare related services. With the exception of case management costs, the costs incurred by HNF families are comparable to the costs incurred by families in shelter and somewhat higher than families in public housing. Increases in costs for HNF families largely reflect increased access to and greater frequency of use of behavioral health services as well as increased access to financial services, such as TANF and Basic Food. Families in emergency shelter experienced smaller increases in these areas and families in public housing experienced decreases in costs in all areas except financial benefits. Costs need to be considered in the context of the range of family outcomes so that matching families to housing and services can maximize both families' well-being and the efficient operation of homeless and housing service systems.

Permanent supportive housing can have positive effects for families who have experienced chronic homelessness and multiple housing barriers. The evaluation of the High Needs Family (HNF) Supportive Housing Program, sponsored through the Washington Youth and Families Fund has documented a number of benefits for homeless families entering the program, particularly compared to families with similar needs and barriers who enter shelter. Compared to these families, families entering supportive housing have greater access to behavioral health outpatient services and are more likely to reunify with their children, have less involvement with the criminal justice system, and are more likely to receive TANF. Compared to similar families that enter public housing without specific supports, families entering supportive housing have improved access to behavioral health outpatient services but do not fare any better or worse on other outcomes.

This fact sheet presents the results of a cost analysis of the HNF Program. The cost analysis has two components: first, an in-depth examination of how costs shift over time for families before and after entering supportive housing; and second, a comparison of these costs shifts with comparable families entering shelter and public housing.

Existing Research

Few studies have investigated the costs of serving families in supportive housing and fewer have examined the costs relative to other interventions. The limited research offers a range of conclusions, though largely in support of a role for supportive housing for select groups of families. For example, Spellman, Khadduri, Sokol, and Leopold (2010) found that first time homeless families entering permanent supportive housing rather than emergency shelter or transitional housing was less expensive *to the homeless system* in part because mainstream systems cover most service costs in permanent supportive housing programs. Yet, because of the limited availability of data on mainstream service costs, the researchers were unable to determine whether if providing permanent supportive housing compared to emergency shelter or transitional housing also led to cost reductions in mainstream services, such as lower child welfare and criminal justice costs after families entered the housing.

An evaluation of the Minnesota Supportive Housing and Managed Care Pilot, a permanent supportive housing program for homeless families with high needs, found that mainstream costs (i.e., medical costs, behavioral health care costs, and income supports) were lower for adults in families and the same for children in supportive housing compared to a matched comparison of homeless families (The National Center on Family Homelessness, 2009). In particular, in the two years following program entry, adults in HNF families, relative to adults in the comparison group, had lower inpatient medical care costs yet higher outpatient mental health costs, resulting in an overall decrease in costs over the study period. Children in supportive housing and shelter/ transitional housing experienced decreases in inpatient mental health costs and increases in outpatient medical care costs, resulting in no differences between the groups.

Similarly, in a study of permanent supportive housing for 29 extremely high need families involved in the child welfare system, program costs in permanent housing over the course of 2 years were cost neutral; that is the costs were roughly equivalent to the estimated costs for emergency shelter and foster care that would have been accrued in its absence assuming that separated children would remain separated and homeless families would remain in shelter without supportive housing (Tapper, 2010). However, this study is limited in that these analyses are based on projected rather than actual costs and do not include comparisons with similar families who are not in permanent supportive housing.

These few cost studies that do exist for families in supportive housing, therefore, are limited either by a lack of adequate data on mainstream services or a lack of comparison with similar groups of families receiving services as usual or housing other than permanent supportive housing. The HNF cost analysis presented in this factsheet, therefore, adds to our understanding of greater supportive housing effects on the receipt and costs of mainstream services by examining families' use of mainstream services over time and how they compare to service use and costs incurred by families in shelter and in housing without supports.

Cost Analysis Approach

Design: Our approach follows a cost shift design that examines the if an intervention (i.e., permanent supportive housing) is successful in shifting future expenditures away from high cost, crisis services (e.g., emergency room use, CPS involvement, criminal justice involvement) to lower cost, preventative services (e.g., case management, outpatient services) within the context of families' residential and family outcomes. Data on costs are provided by Washington State's Department of Social and Health Services' (DSHS) Integrated Client Database (ICDB), a longitudinal client database containing information from over 30 data systems across and outside of DSHS, including data on service risks, history, costs, and outcomes (see Table 1 for a list of those included in this analysis). We compare costs 12 months prior to entering the program with 12 months following program entry.

In addition to providing data on the families in supportive housing intervention group, the ICDB also provides data on families in two comparison groups constructed using propensity score matching (Rosenbaum & Rubin, 1983). Propensity scoring uses a range of variables specifically selected to predict membership in the intervention group so that the comparison groups have families who are matched to those in the intervention group. One comparison group included families that entered emergency shelter (i.e., services "as usual") during the study period, and the second comparison group included families that entered public housing but received no additional supportive services. Families were matched on observed demographic characteristics (i.e., age, race, sex, family size), county of residence, economic variables (i.e., employment history, TANF receipt), and service needs in the two years prior to entry (i.e., Medicaid eligibility, mental health diagnosis, behavioral health service receipt, child welfare service receipt, criminal history). Families were matched on incidence of service receipt rather than cost of services so there are some areas of cost, such as alcohol and drug abuse services, mental health services, and criminal justice services, in which they are less comparable. Figures A-1 and A-2 in

the appendix provide information about the costs of services for each group in the 12 months prior to and following enrollment in shelter/housing.

Service Receipt and Cost Data. As outlined in Table 1, data for the cost analysis included receipt and costs for financial benefit programs such as TANF, Basic Food, and Working Connections Child care; health and behavioral health services, including alcohol and drug services, and mental health treatment; criminal justice costs, including arrests, convictions, incarcerations, and juvenile detention; and child welfare costs.

Table 1. Categories of Mainstream Service Receipt and Cost Data

Service/Cost Category	Specific Service and cost areas	Data Provided	Provided for:	
			Head of Household	Children
Financial Benefits	<ul style="list-style-type: none"> • TANF • Basic Food (i.e., SNAP) • Working Connections Child Care • General Assistance/Disability Lifeline/HEN • Child Support Enforcement 	Individual-level costs per month	✓	✓
Acute Health Care Services	<ul style="list-style-type: none"> • Inpatient admissions • ER visits 	Estimated costs based on # of admissions and # of visits	✓	✓
Alcohol and Substance Abuse Services	<ul style="list-style-type: none"> • Inpatient treatment • Outpatient treatment • Opiate substitution therapy • Detoxification • Assessment • Case management • Other services 	Individual-level costs per month	✓	
Mental Health Services	<ul style="list-style-type: none"> • Inpatient treatment • Outpatient treatment • Community hospital admissions • Crisis services • Evaluation and treatment • State hospital admissions 	Individual-level costs per month	✓	
Criminal Justice Costs	<ul style="list-style-type: none"> • # of arrests • # of convictions • # of days incarcerated • # of diversion episodes • # of deferral episodes • # of days in detention 	Estimated costs based on # of episodes or # of days	✓	✓
Child Welfare Services	<ul style="list-style-type: none"> • Family focused services • Foster care support services 	Individual-level costs per month	✓	✓

Case Management Services	<ul style="list-style-type: none"> • HNF Program Costs • Shelter Service Costs • Transitional Housing Service Costs 	Estimated costs based on # of months in program/shelter/TH	✓
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For each area of service, data were available for the 12 month periods prior to and following program entry. For the analyses, costs were averaged for each area for each 12 month time period for each family member.

Housing Case Management Cost Data. Costs are included for the case management provided by the HNF program, emergency shelter, and transitional housing. HNF case management cost data were provided through Building Changes, the intermediary organization for the Washington Youth and Family Fund. Using the total amount granted for each HNF program site as well as in-kind support provided to the HNF program by their organizations, we estimated a per-night case management cost of serving each family based on the total number of families served and their total length of stay. Case management costs associated with emergency shelter and transitional housing were not available and needed to be estimated based on the bundled per-family per-night costs for each type of assistance in each county in Washington State provided by the Department of Commerce. Using the service to operations ratios from the Family Options Study (Gubits et al, 2015), we estimated that case management accounted for 62% of emergency shelter costs and 42% of transitional housing costs. No case management costs were associated with public housing as analysis of King County Housing Authority records indicated that there are little to no services provided to families using the types of vouchers these families used.

We do not include the cost of shelter or other housing in these analyses because the ICDB does not include information about permanent housing supports. Although we could estimate these costs for families in the HNF program while they were in the housing, we could not come up with estimates for the range of housing alternative for HNF families after they exited the program or for members of the comparison groups as we did not have data on those residential arrangements.

How Do Costs Change Over Time For Families Served In HNF Supportive Housing?

We first present the results of analyses examining whether costs increase or decrease for HNF families after entering supportive housing in seven areas of service and system involvement, and examine whether the costs shift within each area to different types of services. We then examine the changes in costs for families served in supportive housing compared to changes in costs for similar groups of families entering public housing and emergency shelter.

Mainstream Services: As Table 2 shows, costs changed for HNF families in five of seven areas examined, with statistically significant increases in financial benefits, mental health services, and case management, and statistically significant decreases in alcohol and drug abuse services and criminal justice costs. No significant change was found for acute health services and child welfare services. (Table A-1 in the Appendix provides information about the differences in costs for each of the sub-categories within these six service types.)

The overall increase for financial benefits is largely due to increases in receipt and costs of Basic Food (SNAP) (increase of \$1,325), and to some smaller degree for increases in TANF (increase of \$675) and Child Care (increase of \$298). As reported in the *Income and Employment among Families Served in Permanent Supportive Housing Factsheet*, this increase is attributable to a greater number of HNF families receiving TANF and Basic Food after entering supportive housing.

Table 2. Changes in Average Costs before and after Entering Supportive Housing (HNF Families, N=309)

Service/Cost Category	12 months before enrollment	12 months following enrollment	Difference	Statistical Significance
Financial Benefits	\$9,425	\$11,680	\$2,255	***
Acute Health Care Services	\$7,518	\$6,583	(\$935)	
Alcohol and Substance Abuse Services	\$3,015	\$1,694	(\$1,321)	***
Mental Health Services	\$1,636	\$3,404	\$1,768	***
Criminal Justice Costs	\$6,063	\$4,159	(\$1,904)	*
Child Welfare Services	\$281	\$249	(\$32)	

Costs for alcohol and drug abuse services decrease significantly for HNF families from an average of \$3,015 to an average of \$1,694, primarily due to decreases in the use and costs of inpatient treatment following program entry (decrease of \$1,575). HNF heads of household’s rates of substance abuse hospitalizations decreased from 23% to 17% from the year before and after supportive housing. During the same period, however, HNF families experienced a significant increase from 33% to 41% in their use of outpatient services (accounting for a cost increase of \$280); however, because outpatient services are not as costly as inpatient services, the result is a net decrease in overall costs.

The cost of mental health services significantly increases for HNF families from \$1,636 before entering housing to \$3,404 after entering housing. This difference is due to increases in the receipt of outpatient treatment (accounting for an average increase of \$2,099). Following entry into supportive housing, more families received mental health services (49% before and 59% after) and they received services more frequently than in the 12 months prior to program enrollment (see *Behavioral Health Care among Families Served in Permanent Supportive Housing Factsheet*). During this time, HNF families also experience significant average decreases in costs associated with inpatient treatment (\$165), community hospital admissions (\$115), crisis services (\$39), and evaluation and treatment (\$12), but these differences were not large enough to offset the increase in outpatient treatment costs.

Criminal justice costs decrease significantly for families entering supportive housing by \$1,904 from the 12 months before enrollment to the 12 months following enrollment. The decrease is primarily due to significant decreases in the costs associated with arrests (\$1,222) between the two time periods. In the 12 months before program entry, 22 percent of HNF families experienced an arrest, compared with 15 percent in the 12 months following entry. HNF families also experience non-significant decreases in costs associated with convictions (\$609) and juvenile justice deferrals (\$41) and detention (\$159) and small increases in the costs for incarceration (\$120) and diversion (\$8).

<i>Specific Areas of Significant Cost Change</i>	
Financial Benefits	
↑	TANF
↑	Basic Food
↑	Child care
Acute Health Care Services	
↑	ER visits-Children
Alcohol and Substance Abuse Services	
↓	Inpatient treatment
↑	Outpatient treatment
↓	Assessment
Mental Health Services	
↓	Inpatient treatment
↑	Outpatient treatment
↓	Community hospital admissions
↓	Evaluation and treatment
Criminal Justice Costs	
↓	Arrests
Child Welfare Services	
↓	Family focused support services

Finally, although there is a non-significant decrease in overall average child welfare service costs over time, significant decreases result in the costs of family focused services (\$66), child welfare-related child care (\$5),

foster care placement services (\$24), and family reconciliation services (\$2). These decreases were offset by a non-significant average increase of \$64 in foster care support services. Only 15% of HNF families entered supportive housing with a child separated by CPS, resulting in low average costs in each category.

Case Management: The HNF program is designed to be a service-rich program with low case manager-to-family ratios. Of the 19 HNF programs, 13 had ratios of one case manager to 10 families or fewer. Thus, as would be expected, there was a substantial increase in the costs of case management services for HNF families following entry into the program. Prior to enrollment, families received, on average, \$657 worth of case management in emergency shelter or transitional housing programs. In the 12 months following program entry, HNF families received an average of \$12,928 of case management services, largely from the HNF housing.

Table 3. Changes in Average Costs of Case Management Services before and after Entering Supportive Housing (HNF Families, N=309)

	12 months before enrollment	12 months following enrollment	Difference	p-value
Case Management Services	\$657	\$12,928	\$12,271	***

Total Costs: The total cost of mainstream services, excluding case management, for HNF families stayed relatively consistent from the 12 months prior to program entry (\$27,939) to the 12 months following program entry (\$27,769). Significant increases in costs for financial benefits and mental health were offset by decreases in substance abuse, acute health care, and criminal justice costs. However, when case management costs are included, there is a significant increase in total costs following program entry from \$28,595 to \$40,697.

Table 4. Changes in Average Total Costs before and after Entering Supportive Housing (HNF Families, N=309)

	12 months before enrollment	12 months following enrollment	Difference	p-value
Total Costs				
Without case management services	\$27,939	\$27,769	(\$170)	
With case management services	\$28,595	\$40,697	\$12,102	***

How Do Changes In Costs For HNF Families Compare To Changes In Costs For Similar Families Entering Public Housing and Emergency Shelter?

The costs for mainstream services for HNF families increase significantly more over time than the costs for matched families in public housing. When compared to comparable families in shelter, however, the changes in costs for families in supportive housing are comparable. As described below, HNF families experience greater and different costs shifts in mainstream services than families in both comparison groups. When case

management is considered, however, the total costs for HNF families increase significantly more than both groups due to the substantial costs for HNF case management.

Comparing Cost Changes and Shifts with Public Housing Comparison Group: Overall, compared to the matched comparison group of public housing families, HNF families experienced greater increases in costs in all service areas but alcohol and drug treatment (Table 5). Statistical differences were noted in financial benefits and mental health treatment, reflecting findings from previous analyses that indicate HNF families have greater access than public housing families to financial benefits (TANF and Basic Food) and mental health outpatient services following entry into housing. Additionally, while both HNF and public housing families experienced decreases in acute health care costs, HNF heads of household were significantly more like to visit the ER following entry into housing than families in public housing, resulting in a smaller decrease in related costs than public housing families.

In the 12 months following program entry, the total mainstream service costs, excluding case management, for HNF families remained about the same, decreasing only \$169 (from a total of \$27,938 to \$27,769), whereas families in public housing realized a decrease of \$7,265 to a total of \$24,504 from \$31,769. A large part of this decrease is due to the comparison group of public housing families having larger earlier expenditures in mental health treatment, acute health care, and criminal justice (see Figure 1 in the Appendix). These larger earlier costs suggest that these families may have had either slightly greater needs in these areas than HNF families or greater access at that time than HNF families.

Moreover, when case management costs are included, HNF families experience an increase in costs of \$12,102 compared with a decrease in costs of \$6,915 for families in public housing. This statistically significant difference is due in part to the low amount of case management that public housing families receive, incurring an average of only \$548 during this time period.

Table 5. Change in Costs by Service/Cost Categories: Differences Between HNF and Public Housing Families

Service/Cost Category	Increase or Decrease in Costs		Difference in differences (means)	p-value
	HNF (N=309)	Public Housing (N=309)		
Financial Benefits	\$2,255	\$999	\$1,256	**
Acute Health Care Services	(\$935)	(\$2,880)	\$1,944	*
Alcohol/Drug Services	(\$1,321)	(\$1,140)	(\$180)	
Mental Health Services	\$1,768	(\$1,237)	\$3,005	**
Criminal Justice Costs	(\$1,904)	(\$2,900)	\$996	
Child Welfare Services	(\$32)	(\$106)	\$73	
Case Management	\$12,271	\$350	\$11,921	***
Total, without case management	(\$169)	(\$7,265)	\$7,096	***
Total, with case management	\$12,102	(\$6,915)	\$19,017	***

Comparing Cost Changes and Shifts with Emergency Shelter Comparison Group: HNF families and emergency shelter families had comparable pre-program mainstream service costs, at \$27,816 and \$26,954, respectively. The largest areas of costs for both groups before entering supportive housing and shelter relate to financial benefits (i.e., TANF and Basic Food), acute health care (hospitalizations and emergency room visits), and criminal justice services (i.e., arrests, convictions).

In the 12 month period following program entry, mainstream service costs (excluding case management) increased slightly for HNF families to \$28,769 and slightly decreased for emergency shelter families to \$26,109, though neither of these changes was statistically significant. However, as Table 6 shows, HNF families experienced significantly increased costs for financial benefits, consistent with previous analyses that indicate that HNF families were significantly more likely to receive TANF and Basic Food than emergency shelter families. Alcohol and drug treatment-related costs increased by an average of \$69 for shelter families but decreased for HNF families by an average of \$1,229, a statistically significant difference of \$1,298. HNF families were significantly more likely than emergency shelter families to receive substance abuse outpatient services following program enrollment. There was also a non-significant difference in their use of inpatient hospitalizations; following program enrollment, HNF families decreased their use of inpatient treatment and emergency shelter families increased their use of inpatient treatment. These changes account for the significant cost differences between the two groups.

Changes in acute health care, criminal justice, and child welfare related service costs were relatively similar across both groups. In the 12 months after entry, HNF families compared to families in shelter were more likely to use ER for their children, less likely to be convicted of a crime, and more likely to reunify with CPS-separated children; however, these differences are not large enough to account for significant cost differences between the two groups.

When case management costs are included, however, HNF families have an increase of \$13,276 in total costs, compared to an increase of \$385 for emergency shelter families, resulting in a statistically significant difference in difference of \$12,891 for the two groups.

Table 6. Change in Costs by Service/Cost Categories: Differences between HNF and Shelter Families (N=250)

Service/Cost Category	Increase or Decrease in Costs		Difference in differences (means)	p-value
	HNF (N=250)	Shelter (N=250)		
Financial Benefits	\$2,228	\$117	\$2,111	***
Acute Health Care Services	(\$356)	(\$589)	\$233	*
Alcohol/Drug Services	(\$1,229)	\$69	(\$1,298)	***
Mental Health Services	\$1,834	\$865	\$970	*
Criminal Justice Costs	(\$1,540)	(\$1,399)	(\$140)	*
Child Welfare Services	\$15	\$92	(\$77)	*
Case Management	\$12,323	\$1,230	\$11,092	***
Total, without case management	\$953	(\$845)	\$1,798	*
Total, with case management	\$13,276	\$385	\$12,891	***

Summary and Contribution to the Literature

In the 12 month period following entry into supportive housing, HNF families accrue significantly higher costs for financial benefits (e.g., TANF, basic food) and mental health services than before entering the program, but significantly lower costs for substance abuse and criminal justice services. Some of these changes reflect HNF families' increased access to needed services (such as TANF and mental health outpatient services); others reflect a shift away from costly services, such as a shift from inpatient substance abuse treatment to less expensive outpatient services.

When compared to comparable families in public housing, HNF families have significantly higher costs for mainstream services, primarily due to financial benefits and mental health services. When compared to comparable families in shelter, HNF have significant increased costs for financial benefits and significant decreased costs for alcohol and drug treatment, which average out to be non-significant differences between the two groups in overall costs for mainstream services.

HNF families' changes in costs appear to be due to both increased access of certain services and shifts in the use of different services. Families in public housing experienced decreases in all categories of costs, except financial benefits, following entry into housing and even that increase is significantly smaller than the respective increase for families in the HNF program. Families in emergency shelter, on the other hand, experienced increases in all service categories except acute health care and criminal justice.

The case management costs of the HNF program are substantial (averaging \$12,000-13,000) and lead to a significant increase in total costs over time. With approximately 20% of the families leaving the housing within six months, the costs are likely to be much higher for families who stay in the housing longer periods of time. Public housing families appear to have few costs for case management and the costs for families in shelter are considerably lower.

These findings indicate that, with the exception of case management costs, the costs of HNF are comparable to the costs incurred by families in shelter and somewhat higher than families in public housing. Greater increase in costs largely reflect increased access to specific services as well as shifts to less costly substance abuse services and reduced reliance on more costly services, such as inpatient treatment.

Matching families to the housing and services they need is important both for the families' well-being and the efficient operation of homeless and housing service systems. Evaluation findings suggest that supportive housing offers benefits over and above shelter alone. Families in supportive housing compared to those in shelter are more likely to reunify with their children and have less involvement with the criminal justice system over the 12 month period. They also have greater access (both in terms of the numbers who can receive them and the frequency of service receipt) to less costly, community-based services. When costs are considered, supportive housing may cost no more to the mainstream service system than shelter alone; an additional cost of \$11,000, however, may be needed for the enhanced case management.

What is less clear is the individual and system benefits of supportive housing over housing alone. Compared to similar families that enter public housing without specific supports, families entering supportive housing have improved access to behavioral health outpatient services but do not statistically fare any better or worse on other outcomes examined. The difference in costs, however, is substantial, nearing \$20,000. The families in the HNF group accrued more costs over time, whereas public housing families realized a decrease in costs. Some of this may be due to unmeasured differences between the two groups, as the public housing group had much higher costs in several service areas prior to entering the housing than the HNF group. If the two groups are indeed different, then the comparison needs to be considered cautiously. Even with potential differences in the nature and needs of families served, the decreases in costs realized by the public housing group questions whether housing alone can help bring about improvements in reunification and criminal justice involvement.

It is important to note that the reliance on state administrative data limited the focus of this analysis on key areas of service receipt and a few family outcomes that can be measured through the data (e.g., family reunification). Housing stability and other measures of family well-being were not able to be included in this study and thus represent large gaps in the analysis. If supportive housing results in greater improvements in other areas of family stability, then the additional costs for case management and use of the service system may be critical. Moreover, the DSHS data do not include case management costs associated with shelter, transitional housing, or other assistance families receive, so the actual costs experienced by families may be greater or less than the estimates provided here. Further research is needed to examine other areas of outcome as well as examine them for longer periods of time to understand the trajectory of change over time for families with multiple housing barriers placed in different housing alternatives.

Appendix

Table A-1. Comparison of Costs before and after Program Enrollment for HNF Families (N=309)

	12 months before enrollment	12 months following enrollment	Difference	p-value
Financial Benefits	\$9,425	\$11,680	\$2,255	***
TANF	\$3,774	\$4,449	\$675	***
Basic Food	\$5,093	\$6,418	\$1,325	***
Working Connections Child Care	\$249	\$547	\$298	***
General Assistance/Disability Lifeline/HEN	\$131	\$82	(\$49)	
Child Support Enforcement	\$178	\$183	\$5	
Acute Health Care Services	\$7,518	\$6,583	(\$935)	
Inpatient admission-Hoh	\$6,328	\$5,603	(\$725)	
ER visits-Hoh	\$1,190	\$1,248	\$58	
Inpatient admission-Children	\$2,318	\$2,543	\$225	
ER visits-Children	\$513	\$555	\$43	*
Alcohol and Drug Abuse	\$3,015	\$1,694	(\$1,321)	***
Inpatient treatment	\$2,242	\$667	(\$1,575)	***
Outpatient treatment	\$519	\$799	\$280	***
Opiate substitution therapy	\$146	\$161	\$15	
Detoxification	\$26	\$14	(\$12)	
Assessment	\$57	\$38	(\$19)	**
Case management	\$13	\$14	\$1	
Other services	\$13	\$2	(\$11)	
Mental Health Services	\$1,636	\$3,404	\$1,768	***
Inpatient treatment	\$288	\$123	(\$165)	*
Outpatient treatment	\$1,060	\$3,159	\$2,099	***
Community hospital admissions	\$180	\$65	(\$115)	*
Crisis services	\$97	\$57	(\$39)	
Evaluation and treatment	\$12	\$0	(\$12)	***
State hospital admissions	\$0	\$0	\$0	---
Criminal Justice Services	\$6,063	\$4,159	(\$1,904)	*
Arrests	\$2,737	\$1,515	(\$1,222)	**
Convictions	\$2,243	\$1,634	(\$609)	
Incarcerations	\$20	\$140	\$120	
Diversion episodes	\$5	\$13	\$8	
Deferral episodes	\$102	\$61	(\$41)	
Detention	\$956	\$797	(\$159)	
Child Welfare Services	\$281	\$249	(\$32)	
Family focused services	\$149	\$83	(\$66)	*

Foster care support services	\$102	\$166	\$64	
CW-related childcare	\$5	\$0	(\$5)	***
Foster care placement services	\$24	\$0	(\$24)	***
Family reconciliation services	\$2	\$0	(\$2)	***

Figure A-1. Average Total Costs by Category of Services: Comparison of Pre- and Post- 12 Months for HNF and PH Families

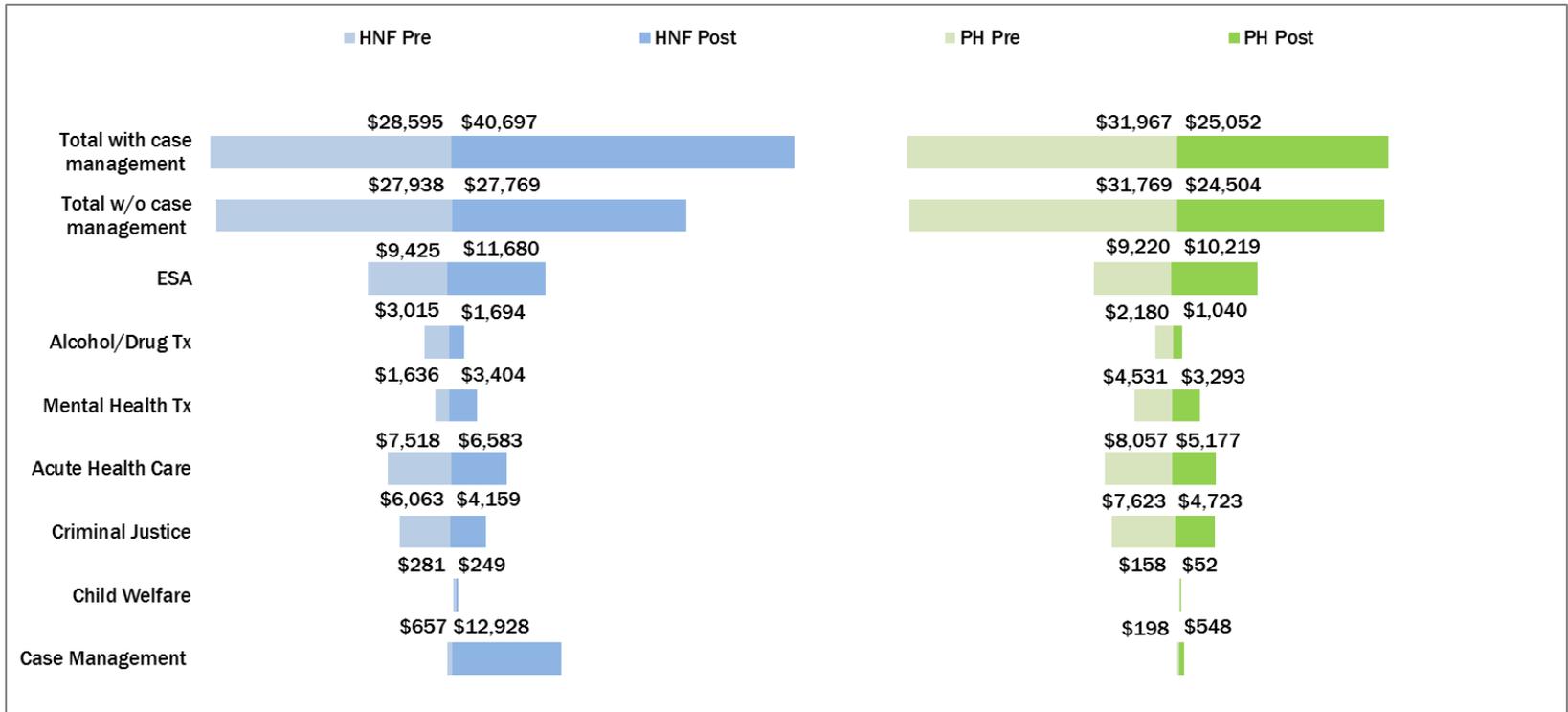
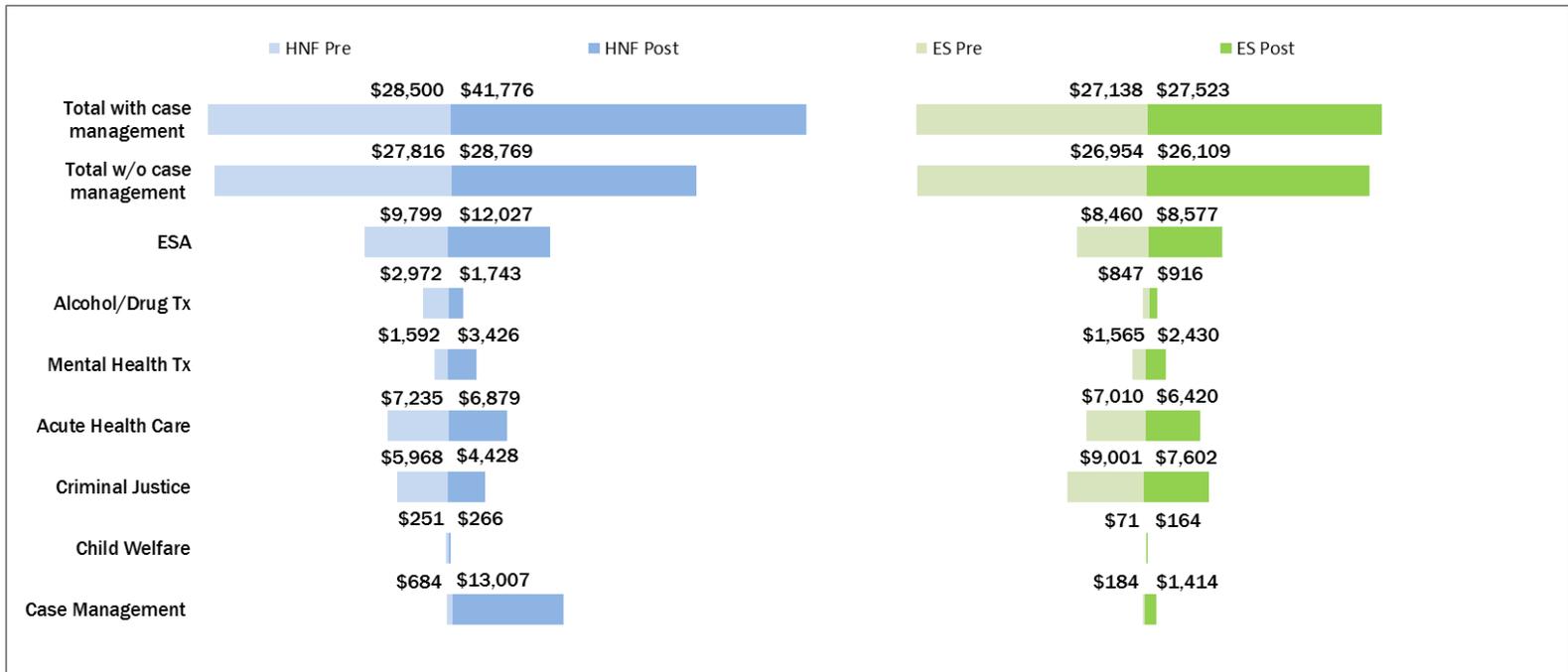


Figure A-2. Average Total Costs by Category of Services: Comparison of Pre- and Post- 12 Months for HNF and ES Families



Understanding Multi-System and High Use of Homeless Families: Findings from an Evaluation of the Washington Youth and Families Fund High Needs Family Program

Introduction

High Needs Family (HNF) Program Overview

The High Needs Family (HNF) Supportive Housing Program, sponsored through the Washington Youth and Families Fund (WYFF), was initiated in 2008 to provide funding for five year service grants to offer supportive housing programs across Washington State. The program, designed to follow a housing first⁹ and harm reduction¹⁰ approach, (National Alliance to End Homelessness, 2006; Pauly, Reist, Belle-Isle, & Schactman, 2013) provided families with histories of homelessness and multiple housing barriers with permanent housing, intensive case management, and access to services that addressed mental health, chemical dependency, health, domestic violence, child welfare issues, and children’s services such as education and mental health.

High Needs Family Program Evaluation

An evaluation, conducted by Westat, examined changes in families’ while they were served in the program as well as their use of services across multiple mainstream services systems. Using the Washington State Department of Social and Health Services (DSHS) Integrated Client Database (ICDB), the evaluation was able to analyze data on families’ use of services from a number of DSHS divisions (e.g., Alcohol and Substance Abuse, Children’s Administration, Economic Services, Mental Health Services) and other agencies, including the Department of Corrections, the Employment Security Department, and Community, Trade and Economic Development. The evaluation also afforded the opportunity to construct two groups (one involving families in shelter and another with families in public housing without services) to compare HNF families service use and outcomes.

Overall findings from the study indicated that after enter, 61% remain in the HNF program, with 39% exiting the housing during that time period. Although high, the rate is similar to the rate of exit experienced in public housing (*Program Models among Families Served in Permanent Supportive Housing*). Comparing families’ status in the year prior to entering the HNF program with their status in the subsequent 12 months, descriptive data found that those who stayed in the housing for this period improved on the length of time they remained in stable housing; their rates of employment; the level of income received; substance abuse;

Evaluation Methodology

ICDB data were available on 189 families enrolled in the HNF program that consented to share their ICDB records and were identified in the database, including both families that stayed in the HNF program for at least 12 month as well as those that exited early. Using propensity score matching (Rosenbaum & Rubin, 1983), two comparison groups, as described below, were matched to this group of HNF families on demographic variables (e.g., age, race, family size), homelessness history, indicators of physical and behavioral health diagnoses or treatment receipt; involvement with child welfare and criminal justice systems, and employment and TANF receipt.

One comparison group included 172 matched families that entered emergency shelter (i.e., services “as usual”) during the study period, drawn from the pool of shelter entrants from the same counties where supportive housing clients resided. The second comparison group included 188 matched families that entered public housing but received no additional supportive services, drawn from the pool of families that entered public housing in King County only¹¹.

⁹ Housing first indicates families move into permanent housing directly from homelessness rather than spending a period of time in temporary, service-rich interventions, such as transitional housing, before entering housing.

¹⁰ Harm reduction is an approach intended to reduce the adverse consequences and unsafe behaviors of substance among persons who continue to use substances by emphasizing a practical focus on the harm associated with substance use rather than idealized goal of abstinence.

¹¹ At the time of this analysis, the ICDB included public housing data only from the King County Housing Authority.
Evaluation Conducted by Westat

their current experiences with trauma; dental needs; and rates of family reunification (Rog, Henderson, Stevens, & Jain, 2014).

Using the DSHS ICDB data, we were able to compare the findings of all families entering HNF (even those who left the program early) with matched families in shelter and public housing. The findings indicated that compared to both groups, HNF families experienced a significantly greater access to behavioral health services in the year following entry into the housing (both with respect to the frequency and amount of services used) (see *Behavioral Health Care among Families Served in Permanent Supportive Housing Factsheet*). Compared to emergency shelter families only, HNF families were more likely to reunify with their children, access TANF, and reduce their criminal justice involvement. Many HNF families continued to use the emergency room at the same rate they did prior to entering the program and at rates higher than comparable families in public housing and emergency shelter (*Health Care Use among Families Served in Permanent Supportive Housing Factsheet*). An overall cost analysis found that HNF families, in the year following program entry, accrue higher costs for financial benefits (TANF, Basic Food) and mental health services than the year prior to entering, but decrease in their costs for substance use services, acute health care, criminal justice, and child-welfare related services. The costs, with the exception of case management, are comparable to those incurred by families in shelter and somewhat higher than for families in public housing (*Service Costs for Families in Permanent Supportive Housing Factsheet*).

Opportunity for Examining High Utilizers

The HNF study, by targeting multi-need families and involving a rich data set as well as two comparison groups, offered the opportunity to identify and learn more about families that are particularly high utilizers of multiple service systems. The data afford the ability to examine some basic family characteristics as well as families' level of utilization within and across systems, and how their utilization may change over time, especially in different housing settings. Moreover, we are able to examine service use for both heads of household and children across these service systems, thus providing a more complete picture of families' service use.

Examining High Utilization

The disproportionate share of service costs incurred by a small population has led to increased attention to high or super-utilizers (Miller, Cunningham, & Ali, 2013; Weil, 2015). Many studies of high utilizers examine the characteristics that predict high use of services within a particular service area, such as medical care, mental health care, or criminal justice (Katon, et al. 1990; Pearson, 1999; Taube, et al. 1988). Characteristics can include diagnoses, such as depression, access to primary care, and homelessness (Katon et al. 1990; Harris et al., 2016; Lindamer, 2012; Von Korff, Ormel, Katon, & Lin, 1992). A number of studies, in particular, have examined the relationship between homelessness and high service use. For example, Pasic, Russo, and Roy-Byrne (2005) find that high utilizers of psychiatric emergency services are more likely to be homeless and to have a history of incarcerations. Others find that homelessness among single adults is related to being a high utilizer of multiple service systems, such as mental health and chemical dependency (Lindamer, 2012; Park, 2010). Larimer, Malone, & Garner (2009) find that homeless individuals with severe alcohol problems are also high users of health care and criminal justice services.

Other high utilization studies use service data to determine what percentage of the population of users comprise the majority of the expenses. For example, Chambers et al (2013) determine that 10% of individuals account for more than 60% of emergency department visits among a group of homeless adults and Lin et al (2015) determine that more than 70% of hospitalizations among homeless people in Massachusetts in 2010 were incurred by only 12% of the population. In an examination of Medicaid super-utilizers, researchers found that, on average, these super-utilizers had more hospital stays, longer stays, higher hospital costs per stay, and higher hospital readmission rates compared with other Medicaid patients (Jiang et al., 2015).

Few studies focus on children who are high utilizers in one or more systems. For example, children involved in the child welfare system have determined that foster care placements for children are linked to high utilization of mental health services and high utilization of medical services (Rubin et al., 2004; Sims et al., 2000). Similarly, children with high use of mental health care services frequently experience involvement in the juvenile justice system (Horwitz and Hoagwood, 2002; Wotring, et al., 2011).

No study to our knowledge has examined utilization across multiple systems for homeless families. With the use of the ICDB, we are able to conduct a more comprehensive examination of use than is typically afforded, looking across not only health and behavioral health systems, but use of criminal justice services, child welfare services, and financial benefits. Moreover, for health and behavioral health, we are able to examine costs for both the head of household and the children in the families¹².

Past studies have used various methods for defining utilization, including either those with the relative highest frequency of use (Chambers et al., 2013; Lindamer, Liu, Sommerfeld, et al., 2012) or relative highest dollar value of expenditures in a specific service area, such as health (Agrawal et al, 2016; Cohen, Berry, Camacho, Anderson, Wodchis, & Guttman, 2012; Grupp-Phelan, Lozano, & Fishman, 2001). Some studies have defined high utilization as the top 25% or 10% of use or costs; others have used standard deviations as cut-offs (Crane & Christenson, 2008). For the current study, we operationalized utilization in terms of costs because it facilitates comparisons across multiple service systems with different types of utilization (i.e., arrests, service visits, hospitalizations). We chose the top 10% as the cut-off for utilization in each service area as well as across systems for two reasons: one, the overall number of families in our samples is relatively small, and, two, many of the families are not users of specific systems. If we had used a 25% cut-off, for example, we would include many families with either 0 values or low cost values. Therefore, to make the analysis meaningful but with an n sufficient to conduct exploratory analysis, we chose a 10% cut-off. Exhibit 1 describes the three ways we applied this definition.

Research Questions

Our analyses were guided by the following questions:

1. What is the average and range of costs incurred for the top 10% of utilizers in each service area? What specific services account for costs in each service area?
2. What is the average and range of costs for the top 10% utilizers across the six service areas? What constellation of services accounts for these costs?
3. What demographic and other background characteristics distinguish high utilizer families from other families in the HNF?
4. How do high utilizer families fare in supportive housing compared to other families in supportive housing? How do their outcomes compare to similar high utilizer families who are enter housing without supports and status quo services (e.g., entering shelter).

Exhibit 1. Defining High Utilizers

Specific Service High Utilizers

Families with the top 10% of costs in each of six service areas in the 12 months before entry into the HNF program.

Cross-System High Utilizers

Families who are in the top 10% of multiple service areas

High Overall Utilizers

Families that rank in the top 10% of overall costs across the six areas.

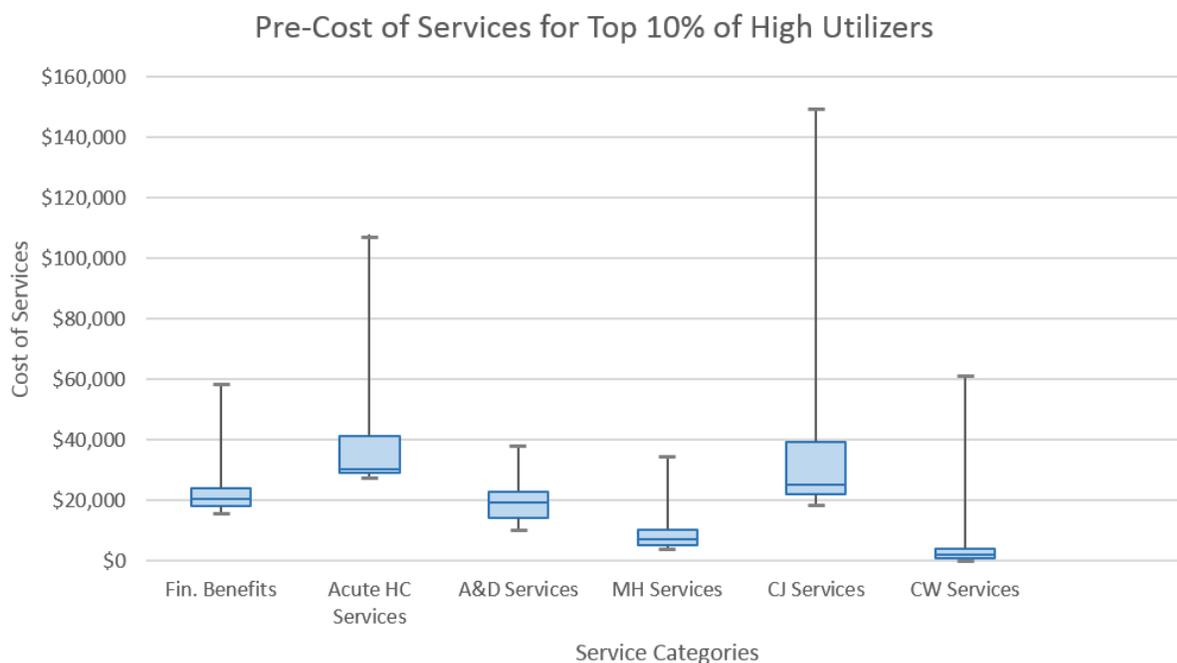
High Utilization of Specific Services

Figure 1 shows the values of the subgroups of families that comprise the top 10% of service use within each of the six service areas – financial benefits, acute health services, alcohol and drug treatment, mental health treatment, criminal justice services, and child welfare services. We focused on use in the 12 months prior to

¹² We did not have consent to access ICDB data for other adults in the household. Therefore, for the 6% of families with another adult in the household, these may be under-estimates of service costs.

entering the program to be able to examine changes in utilization following entry into supportive housing. Within each service area, the black lines represent the range of costs, anchored by the highest and lowest values. The blue box represents the middle 50% of values for each high utilizer group. The line in the box is the median value, and the number is the mean (i.e., the arithmetic average). As the figure shows, acute health services and criminal justice services are the highest average cost service areas and child welfare services is the lowest cost area. Even among high users, however, in all cost areas the distributions are skewed with a few families having disproportionately large costs to the service system.

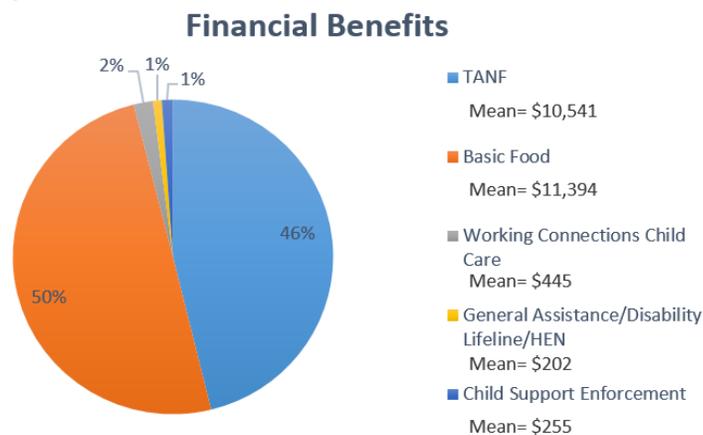
Figure 1.



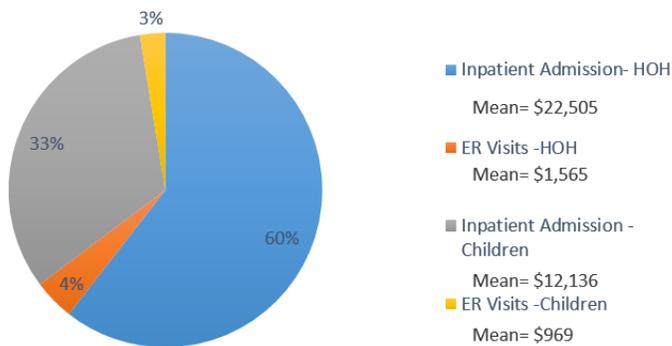
We then drilled down into each service area to understand which specific services account for the average costs of these families and whether they are for the adult and/or children. In addition, we examined how the costs for HNF high user families compare to all families served in the HNF program.

Figure 2 shows that costs for financial benefits in the year before entering supportive housing, range from \$19,136 to \$34,845 for high utilizer families. These costs are for both the heads of household and children in the family. Almost all of these costs are due to TANF and Basic Food, with very small amounts incurred for child care, child support enforcement, and general assistance. High utilizer families of financial benefits, compared to all other HNF families, are significantly more likely to have larger families and are more likely to be Hispanic.

Figure 2.



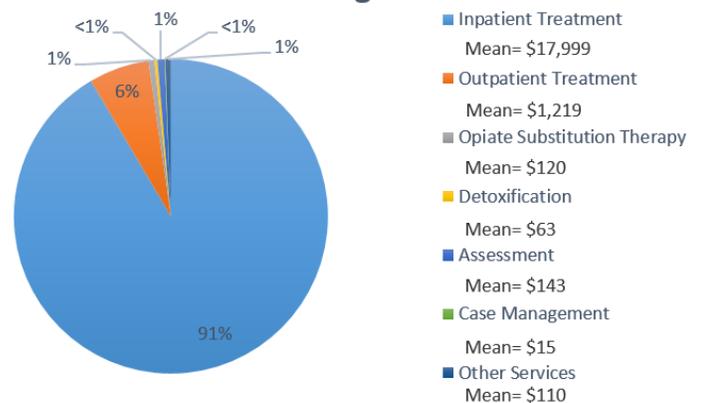
Acute Health Care Services



High cost users of acute health services, including costs for both heads of household and children, range from \$28,126 to \$107,855. Nearly 95% of these costs are due to inpatient admissions, two-thirds by the head of household and one-third by the children. ER visits accounts for the remainder of the costs, with 62% for the head of household and 38% for the children. High user families, compared to other HNF families, are significantly more likely to have female heads of household and younger children, on average.

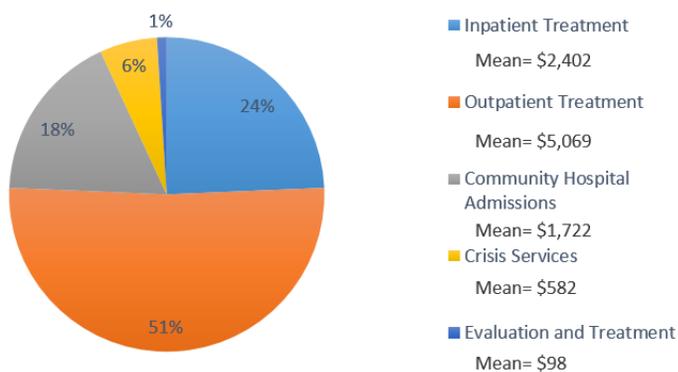
Costs for alcohol and drug treatment and mental health services are only available on heads of household. In the 12 months prior to entering housing, these costs ranged from \$9,623 to \$38,091 for alcohol and drug services for high utilizers. Inpatient treatment accounts for over 90% of the costs for this subgroup. Outpatient treatment accounts for 6% of the alcohol and drug costs, and other services each account for less than 1% of the costs. These head of households tend to be younger and have younger children than all other HNF heads of household.

Alcohol and Drug Services



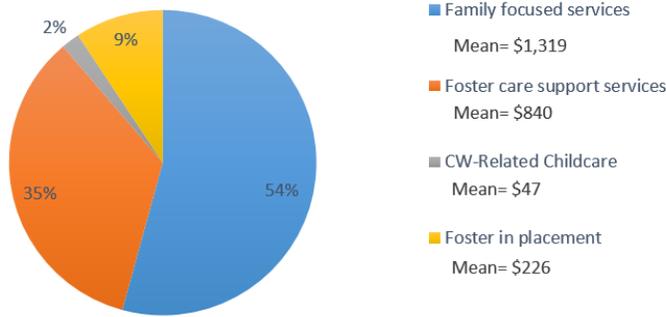
High users of mental health services in the 12 months period to entering housing have costs ranging from \$4,465 to \$24,399. Outpatient services account for a little more than half (51%) of the costs for high utilizers of mental health services, while inpatient treatment and hospital admissions account for 42%, and crisis and evaluation and treatment services make up the remainder. These high utilizer families are headed by older heads of household than other HNF families.

Mental Health Services

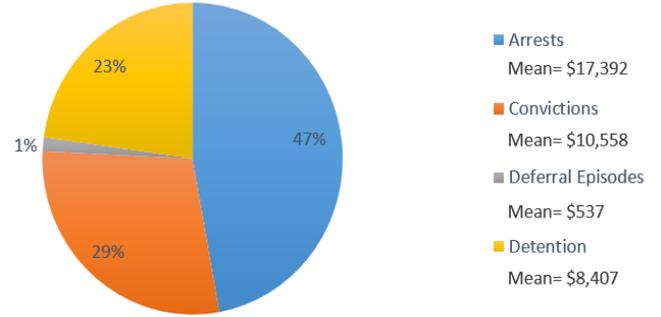


Criminal justice costs include costs for both adults' involvement in the criminal justice system (arrests, convictions, incarcerations) and children's involvement in juvenile justice (detention, diversion, deferral). The subgroup of high utilizers of criminal justice services have the second highest average costs of the six systems examined, ranging from \$18,947 to \$149,991, with an average of nearly \$37,000. The costs are due primarily to arrests (47%), followed by convictions (28%) and juvenile justice detention (23%). No amounts were incurred for

Child Welfare Services



Criminal Justice Services



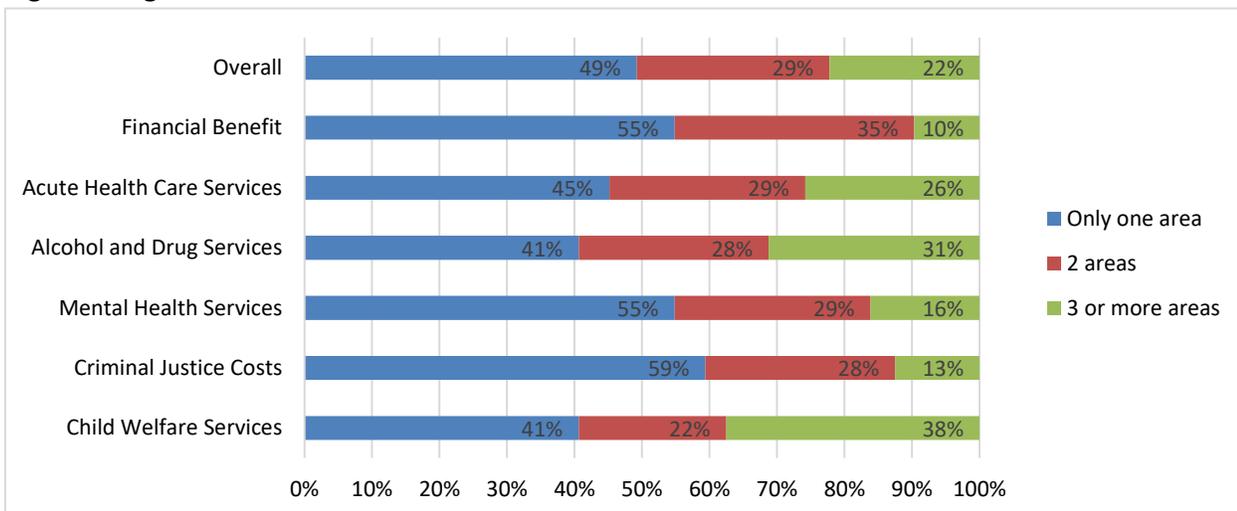
incarcerations or diversions during this period for this group, and a very small amount was incurred for deferrals. These families’ characteristics are similar to those who are not high utilizer families. The costs incurred by families with high utilization of child welfare services, measured for both adults and children, range from \$758 to \$61,005 and are due to behavioral rehabilitation services, intensive wrap-around services for families with child welfare involvement (53%), family-focused services (25%), and foster care support services (16%). Much smaller amounts are due to a range of other services. Families who have relative high use of the criminal justice system tend to have slightly larger families, but also younger children, on average, than other HNF families.

High Utilization across Multiple Service Areas

Virtually all families that were classified as high utilizers in at least one service area also incurred costs in other service areas though generally not at an equally high level. More than 50% of all high users have used financial benefits, acute health services, mental health services, and alcohol and drug services.

As the top bar in Figure 2 displays, more than half of the families (51%) that are considered a high utilizer in one service area also are a high utilizer in one or more other areas. This represents 93 families, or about 30% of the overall HNF sample of families. The bottom bars represent the top 10% users in each service area and the extent to which they overlap in high use in other systems. Families that are high utilizers of alcohol and drug services and child welfare services have the highest overlap with other systems; families in criminal justice have the lowest overlap. For families in the alcohol and drug and child welfare high use groups, the largest overlaps are with each other and acute health care.

Figure 2. High Utilization across Service Areas

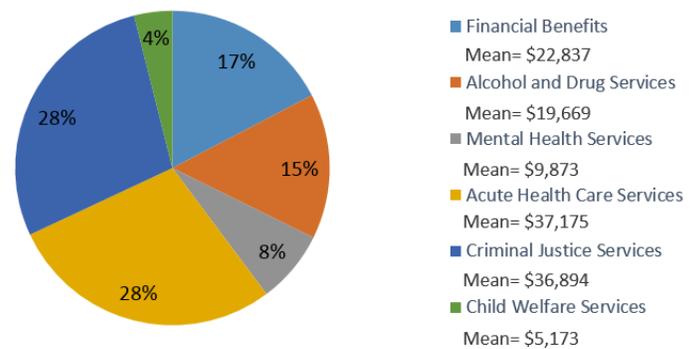


Overall High Utilizers

Finally, we examined those families with the overall total costs across the systems. The top 10% of families have an average of \$80,999 without case management (\$82,497 with case management) in the year prior to entering the HNF program. For these families, acute health care and criminal justice costs made up the majority of costs, with each accounting for 28%, followed by financial benefits (17%), alcohol and drug services (15%), mental health service costs (8%), and child welfare costs (4%). These findings reflect the findings of the individual service areas.

The top 10% of families across all systems are predominantly white, female heads of household in their early 30s with no other adults in the household. They are similar to other HNF families along all characteristics, compare that they are large families, with an average of 2.8 children compared to 2 children in other HNF families.

Total Pre-Cost of Services



Changes in Costs and Outcomes after Entering Supportive Housing

Although the high utilizer groups are small, they provide an opportunity to examine how their service use changes over time and how those changes compare to the changes experienced by all other HNF families. In addition, we developed similar high use subgroups in the two comparison groups constructed for the overall evaluation – families in public housing and families in shelter. Because these subgroups were not matched in the manner that the overall groups were, we need to treat these analyses as speculative and providing insights for future work.

Tables 1 and 2 compare the high utilization costs before entering the program between HNF families and families in public housing and emergency shelter. Overall, high utilizers in both the HNF program and in public housing show significant decrease in costs over time.

The comparison with public housing (Table 1) shows that the HNF high utilizer families significantly decrease costs in acute health services, alcohol and drug services, and criminal justice services. The public housing high utilizer groups, however, show significant decreases in these same areas as well as smaller but significant decreases in financial benefits. Decreases in both groups in alcohol and drug treatment is largely due to decreases in costs for inpatient treatment; similarly, decreases in acute health care services is due to decreased inpatient costs for both adults and children. Criminal justice costs are affected by decreases in all areas, especially arrests and convictions. For high utilizers in public housing, the significant decrease in financial benefits expenditures is largely due to decreases in TANF, offset a bit by an increase in Basic Food.

High utilizers in emergency shelter also experienced significant decreases in costs over time. Shelter families experienced a significant decrease in financial benefits, largely due to decreases in TANF, and also experienced significant decreases in costs for acute health care services and criminal justice services. Families experienced decreases in both inpatient admissions and ER visits for the heads of household as well as a decrease in inpatient admissions for children. Criminal justice costs were affected by decreases in costs for arrests, convictions, and detention. Shelter high utilizers of alcohol and drug services did not realize a significant decrease in those costs over time; although they experienced a decrease in costs for inpatient treatment, an increase in outpatient treatment and negligible changes in most other service areas resulted in an overall lack of a significant change in overall costs

Table 1. Comparison of Costs over Time for HNF and Public Housing High Utilizers

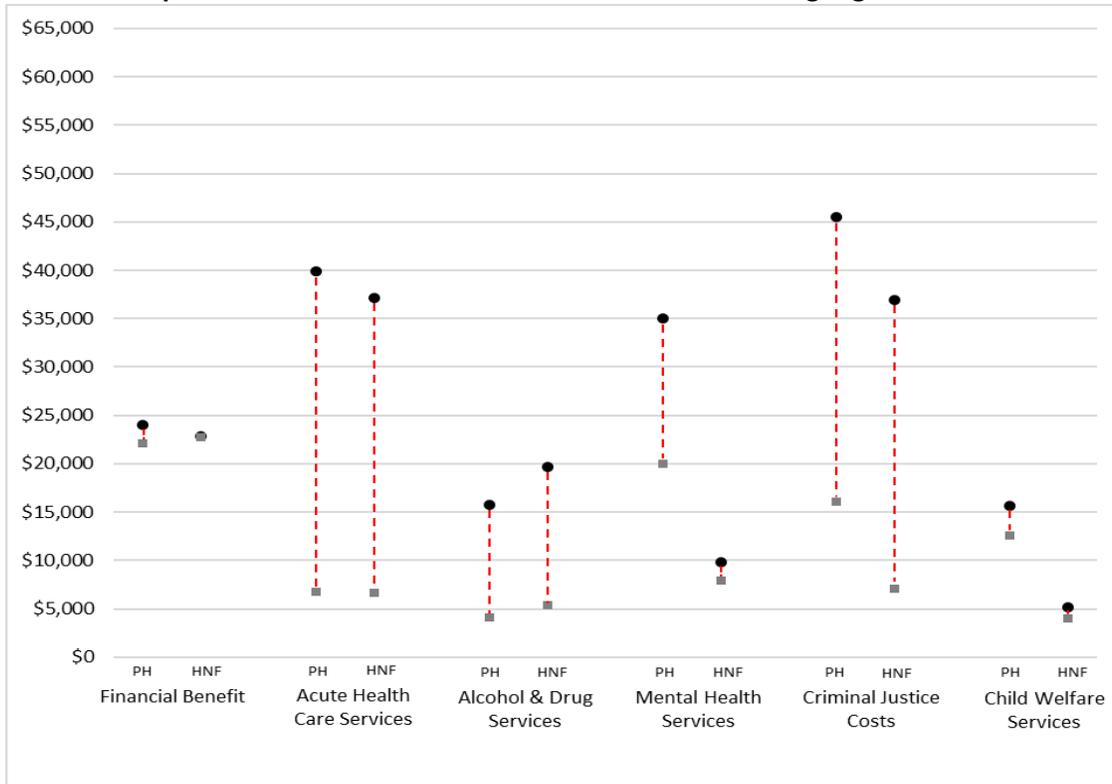
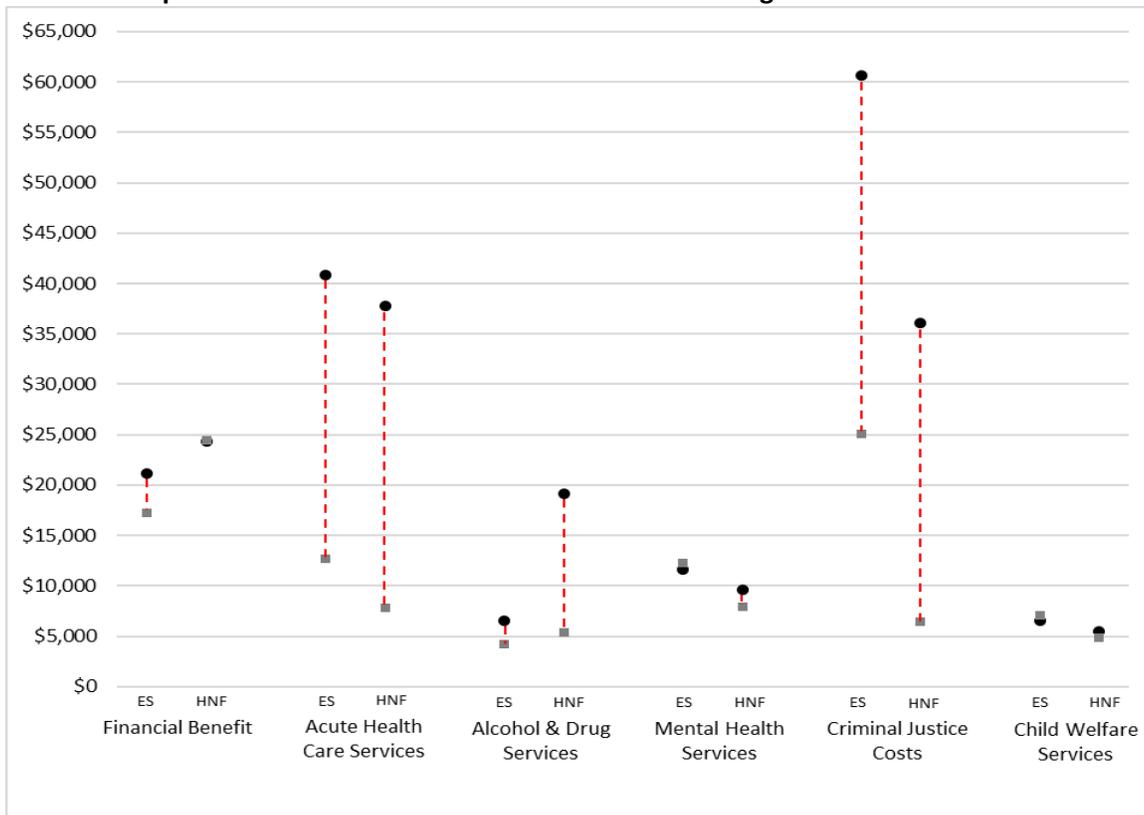


Table 2. Comparison of Costs over Time for HNF and Shelter High Utilizers



The comparison of the pre-entry costs of the high utilizer subgroups across the three groups reveals some initial differences in the use of the services. The public housing high utilizer subgroups in mental health services, criminal justice services, and child welfare services had higher pre-entry costs of services relative to the same subgroups in the HNF group; the alcohol and drug treatment subgroup had relatively lower costs. Comparing the shelter subgroups to the HNF subgroups, the shelter subgroups had comparable pre-entry costs in most areas, but were higher in the criminal justice subgroup and lower in the alcohol and drug treatment high utilizer group. The overall costs in both the public housing and shelter high utilizer groups in the prior months were higher than those for the high need family groups.

Summary

High user families of mainstream systems average close to \$100,000 in their use of these mainstream service systems, with acute health services and criminal justice services accounting for over half of the average costs. Inpatient hospitalizations are the costliest health services and, within criminal justice, arrests account for over half the costs; convictions and detentions each account for about a quarter of the costs each. Financial benefits and alcohol and drug treatment are the third and fourth systems with high average costs.

Over time, families who enter housing – whether supportive or public housing – experience decreases in costs, overall and in the areas of financial benefits, acute health care services, alcohol and drug abuse services, and criminal justice services. Families entering shelter also experience a decrease, but it is overall lower than high utilizer HNF families. It is likely that some of the decrease in families' costs are natural returns to more stable levels. When families are selected for their high scores, it is expected statistically that their scores will drop to a more "normal" level over time. Some of this statistical "regression to the mean" may be what is being seen in all three groups. Other drops are shifts from inpatient to outpatient costs, especially in health and behavioral health areas.

Even with these drops, however, the level of use continues to be high for high user families in all three groups, with an average of almost \$60,000 across the groups. The findings suggest that more needs to be done to understand what is driving the costs in each service area. For example, in the criminal justice area, understanding the nature of the arrests can provide insight into the interventions that may help families reduce these costs even more. Are the costs due to drug arrests and therefore suggest that even more treatment may be needed by these families, or are the arrests due to families being more visible by virtue of being unsheltered? Are hospital inpatient costs due to disabilities that make it more difficult for families to remain stable or are they due to illnesses that could be avoidable if stable housing were more available? Are the decreases in these areas in part due to having some type of stable setting, even if it is shelter?

This study, despite having rich intersystem data, lacked the ability to delve more deeply into the characteristics of the families, their histories, and backgrounds. Having more contextual information about their housing situations before and after entering HNF as well as the complexities of their families would provide greater understanding of the nature of their system use, the extent to which it is appropriate, and what more can be done to meet their needs. More research that can pair this type of investigation with more in-depth data collection on families is therefore needed to provide greater understanding of how best to strengthen the housing provided.

In summary, this study offers an unprecedented opportunity to examine a subset of families that are high utilizers of one or more systems, to understand the areas of service that account for the greatest costs, and to learn how those costs can decrease over time as families become more stable, either in housing or shelter.

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