

# Housing with Services

## Evaluation Report

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# INTRODUCTION & BACKGROUND



## Housing, Health, & Supportive Services

**Housing as a Determinant of Health:** Housing stability is widely recognized as a key determinant of health and health care outcomes, especially for older adults or individuals with disabilities. Health care reform efforts are increasingly turning to strategies that address the challenge of stable and affordable housing for at-risk clients, which has been linked to fewer ED and inpatient stays, lower medical costs, and improved use of primary care and preventive health services. However, an emerging body of research suggests that housing alone may not always be enough to address the challenge: residents may require a range of *supportive services* to successfully remain in housing, and to maximize its benefits on their health and health care outcomes.

**Why Services Matter:** Embedded services represent a potentially productive pathway for partnership between housing providers and health systems, since embedded services that impact health can often be paid for with health care funding. However, more evidence is needed about how different services— access to health care, food and nutrition, social support, transportation, and others – are connected with health care outcomes. Such evidence can help inform health transformation efforts by opening up new pathways for braiding housing and health care resources in ways that better support an integrated, whole-person approach to health.



## Housing with Services, LLC

**Program Inception:** *Housing with Services* (HWS) was formally launched in 2013 following an extensive community- based planning process and including the support of a State Innovation Model (SIM) grant from the Center for Medicare and Medicaid Innovation. A Limited Liability Corporation (LLC) was formed and financial commitments made by a broad set of partners (figure to right). HWS was implemented in 11 publicly subsidized apartment buildings where 60% of residents were dually eligible for Medicare and Medicaid.

**Program Launch:** A baseline needs assessment indicated that residents faced significant barriers to physical and mental health services, had high levels of chronic and co-morbid health conditions, and experienced food insecurity. In response, the HWS program model was built to provide site-based access to health navigation, mental health services, culturally specific services, food insecurity interventions, prescription medication management, community inclusion, eviction prevention, crisis case management, and social services and supports. LLC staff provided administrative support, while site-based staff provided services in residents' apartments, buildings, or in a centrally located wellness center. Early on, HWS staff identified three essential program elements for impacting health care outcomes: 1) cultural fluency in services delivery; 2) improved access to care through an activities hub with site-based and in-home services; 3) and resident involvement in program design, implementation, and oversight. All three elements were fully incorporated into the program's operating model.

More details about the development of HWS and the program model can be found in Appendix A.

### MAJOR PROGRAM GOALS

- Optimize use of health & social services
- Improve access to long-term supports
- Improve housing stability
- Improve resident quality of life
- Integrate culturally specific services

### PROGRAM PARTNERS

**LLC Partners:** Cedar Sinai Park, CareOregon, Home Forward, REACH Community Development, Asian Health & Service Center, Jewish Family & Child Services, Sinai In-Home Care, Cascadia Behavioral Health, LifeWorks NW.

**Other Partners:** Meyer Memorial Trust, Family Care, Enterprise Community Partners, Providence Health Systems.



## Prior Evaluation Work

**Needs Assessment:** Portland State University's Institute on Aging conducted an initial assessment of building residents to identify residents' needs related to health and wellbeing. It found substantial barriers to accessing physical and mental health services, high levels of chronic and co-morbid health conditions, extremely high frequency of mental health conditions, and food insecurity.

**2016 Portland State University Evaluation:** In 2014-2016, HWS was independently evaluated by PSU.<sup>1</sup> The study combined longitudinal surveys of residents in HWS buildings, interviews with key stakeholders about program implementation, and analysis of Medicaid and Medicare data to assess program impact.

**Evaluation Design:** The PSU evaluation was conducted throughout the HWS development, launch, and first year of operation, and so represents "early findings." In addition to providing rich data about the HWS population and how they were engaging in the program, the study compared residents who used the HWS services to residents in the same buildings who did not use them to compare outcomes over time.

**Key Findings:** Key findings from the report included:

PROGRAM IMPACT METRICS
Reduced ER Visits & Inpatient Stays
Increased Access to Preventive Services
Increased Use of Primary Care
Improved Individual Health Indicators
More integrated physical/behavioral health
Fewer Housing Evictions
Improved engagement & management of health conditions

1

**Improved Preventive Services:** HWS clients were more likely to use preventive services (89%, compared to 78% of residents not using HWS).

2

**Improved Primary Care Access:** HWS clients were more likely to report good primary care access (91%, compared to 81% of residents not using HWS).

3

**Improved Food Security:** HWS clients were more likely to report improvements in food security (50%, compared to 34% of residents not using HWS).

4

**No Reductions in ED or Hospital Use:** HWS clients did not have significantly lower rates of ED or inpatient use compared to residents not using HWS.



## Current Evaluation

**The Need for More Data:** The PSU evaluation provided important and rich early data for the HWS program, but timing precluded a full assessment of some key outcomes: although there were no apparent *short term* changes in key cost drivers like ED and inpatient use, it is possible such effects would only materialize over a longer time period. In addition, the PSU study was limited because of data availability to comparing HWS clients to residents of the same buildings who were not engaged in HWS -- an approach that has inherent limitations because people who *opt out of a program* may look different than people who enroll in ways that cannot be accounted for in the analysis.

**Purpose of Updated Evaluation:** To build on the results of the PSU evaluation, the Center for Outcomes Research and Education (CORE) examined the impacts of the HWS program on health care utilization and costs over a longer time period, and leveraged new data to compare results between HWS participants and similar residents who live in buildings where HWS was not available to them. This approach allows for greater confidence that differences in outcomes can be attributed to the program. However, the CORE study is still an observational design, and unobserved differences in environments or participants may contribute to this report's findings.

**STUDY OBJECTIVE:** Assess the long-term impact of HWS program on residents' health care utilization and costs.

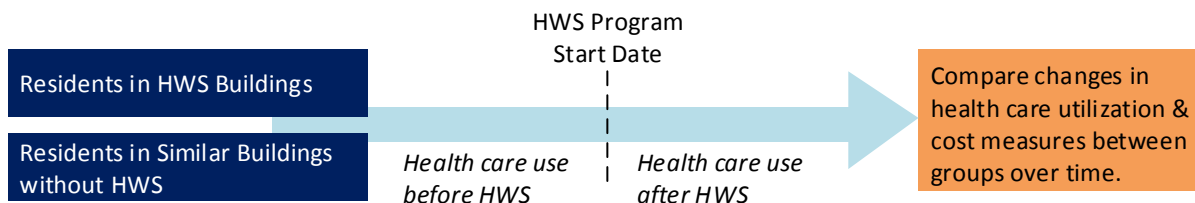
<sup>1</sup> Carder, P.C., Luhr, G., West, M., & Morgan, B. (2016). *Housing with Services Program Evaluation*. Portland, OR: Institute on Aging, Portland State University.

# RESEARCH DESIGN



## Overview of Approach

This evaluation uses a retrospective, pre-post comparative design. Health care utilization and cost data for residents in HWS buildings are examined before and after they moved into their building, then compared to the same data for residents in similar buildings without a HWS program. The study examines differences between the two groups in how costs *change* after moving in: if residents moving into HWS buildings tend to see greater reductions in costs than residents moving into similar buildings without the program, we learn something about the potential impact of the HWS program above and beyond whatever the “natural” impact of gaining housing.



**SUBGROUPS:** in addition to examining the average impact of HWS on *all* residents of HWS buildings, we examined changes in outcomes over time for residents we know actually engaged in HWS services. In addition, we examined specific outcomes for residents with dual coverage (Medicaid & Medicare).



## Data Sources

Three major data sources were used to conduct the study:

- **Medicaid & Medicare Claims and Enrollment Data:** The Oregon Health Authority (Medicaid) and CareOregon (Medicaid and Medicare) provided data on enrollment, demographics, and health care claims for participants.
- **Administrative Housing Data:** Cedar Sinai Park, HomeForward, and REACH CDC provided administrative housing data, including move-in dates, for participants.
- **Program Data:** CareOregon and the Asian Health and Service Center provided HWS program data, including which residents accessed services and the dates and types of service used.



## Study Population

To be included in the study, residents had to be 18 or older, live in one of the buildings associated with the study at some point during the study window (Sep 2013-June 2018), and have at least 6 months of health care coverage before and after enrolling (to allow us to examine changes in health care outcomes). Any participant who had lived in both HWS and non-HWS buildings during the study period was excluded. In total, the study includes 873 residents in HWS buildings and 714 residents from comparison buildings.



## Analysis

We used a *difference-in-differences* (DiD) analysis to assess whether the coordination and provision of services through the HWS program impacted residents’ health care utilization and cost. A DiD analysis compares the *change over time* in an outcome between groups. This type of analysis accounts for “natural” changes we might expect in an outcome over time absent the intervention (due to other factors in the environment), and allows us to isolate any *additional* effect that might be attributable to the intervention above and beyond that natural change.

**MORE INFORMATION:** For more complete information on study design & analytic methods, please refer to Appendix B.

# PROGRAM SUMMARY



## Profile of Residents

The HWS program was implemented at 11 affordable housing properties<sup>2</sup> in Portland, Oregon. Each affordable housing property was designated by the Department of Housing and Urban Development (HUD) as housing for seniors (62 years of age or older) and people with disabilities.

**Participant Profile:** A total of 1,896 individuals lived in these HWS buildings during the five-year study window: September 2013 – June 2018. This analysis includes 873 of them who met our study inclusion criteria (page 6). A demographic summary of those participants is provided in Exhibit 1; notably, the average age of residents was 63 years old, nearly a third of participants were nonwhite, and, of those who reported language, 1 in 5 use a primary language other than English.

Residents who actually engaged in HWS services were similar to those who did not, with two exceptions: those who engaged in HWS services were more likely to identify as Asian and be over 65 years of age (data not shown).

## BY THE NUMBERS:

873

Total number of people housed during the study and included in evaluation

9

Average number of new people housed per month

5.8

Average years people were housed during the study



## Onsite Services

HWS was officially established in May 2014, and the program began delivering coordinated onsite services in September 2014. Prior to program implementation some HWS sites offered discrete services to residents, but not in as comprehensive or coordinated a manner.

**Types of Services:** Program staff provided onsite services and coordinated with services across a number of agencies, including screening and identifying residents at risk for negative health or social outcomes, then providing services designed to promote health and healthy behaviors, recognize and respond to gaps in services delivery systems, increase residents' access to health care and involvement in health care decisions, and connect residents to a range of supports.

**Use of Services:** Of the 873 study-eligible residents who lived in the HWS properties, 437 accessed HWS during the study period. Data included records of 4,086 discrete program encounters times (below). In general, use of services increased over the first 18 months of the program, then began decreasing as decreases in funding led to reductions in HWS staff.

## DEMOGRAPHIC PROFILE OF RESIDENTS

Average age	63.3
Percent female	45%
Reported zero income	16%
Primary language is not English	21%
Dual enrolled in Medicare/Medicaid	55%
Identified as hispanic ethnicity	5%
Identified as non-white race	32%

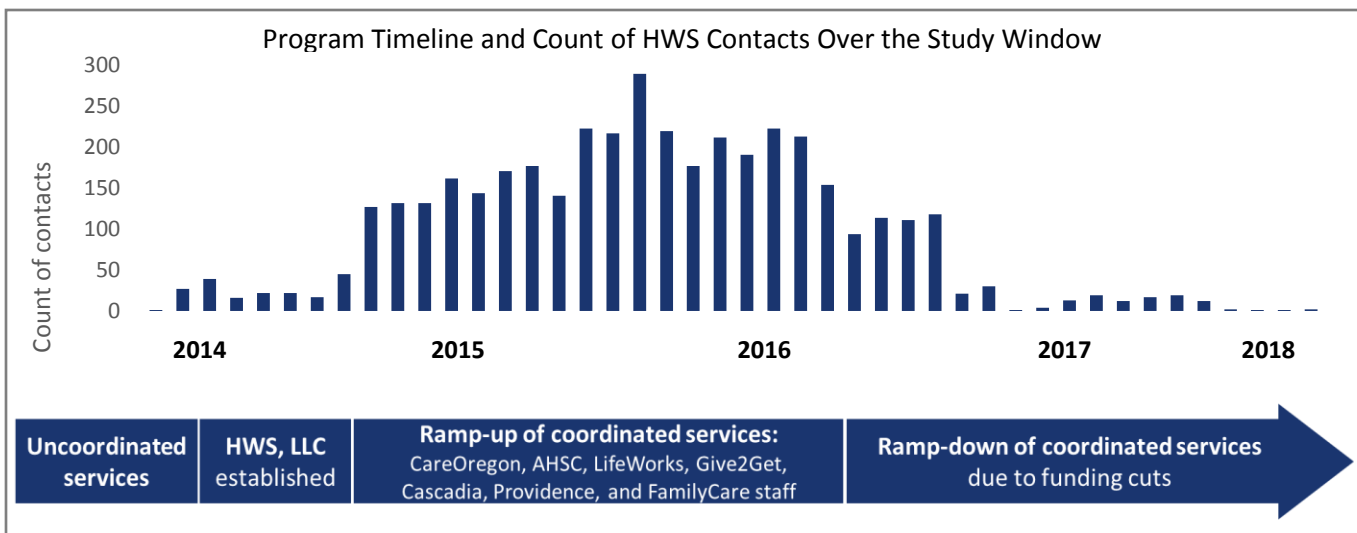
Please see Appendix B for additional detail.

## EXAMPLE SERVICES PROVIDED BY HWS PROGRAM

Care coordination: primary, specialty, mental health care
Service referrals: physical, behavioral, in-home care
Repeated assessments of health & social needs
Nutrition counseling, food insecurity support
Medication review & counseling
Health education & coaching, goal setting, support
Onsite behavioral health services, counseling referrals
Community inclusion facilitation
Trained peer supports
Crisis intervention and targeted case management

<sup>2</sup> We were only able to obtain administrative housing data from 10 of the affordable housing properties.





**Types of Services Used:** Overall, health care services were the most heavily utilized HWS service (a total of 1,614 encounters by 323 distinct individuals, representing over 70% of those who used at least some HWS services).

We also examined whether rates of service use differed for residents with Medicaid coverage vs. those who were dually enrolled in Medicaid and Medicare (right). Overall, the isolation intervention, general information and referrals, and case management were used more frequently by dually-enrolled residents compared to those enrolled only in Medicaid, suggesting distinct service needs for each type of resident.

We further examined whether rates of service differed race and language (next page). Overall, individuals identified as Asian were more likely to use almost every type of service than other residents. The exceptions to this were monitoring and benefits/entitlements/insurance services, which were equally used across racial groups; and mental health services, which were less likely to be accessed by Asian individuals.

We observed the same trend with language as we did with race; with Mandarin-speakers more likely to use most forms of services – but less likely to use mental health services – compared to residents who spoke other languages.

Most Frequent Services Used in HWS	Unique			
	Individuals	Contacts	Ratio	
Health Care Services	323	37%	1614	5.0
Isolation Intervention	102	12%	1125	11.0
Outreach	302	35%	1024	3.4
Monitoring Services	242	28%	942	3.9
General Information and Referral	191	22%	492	2.6
Benefits/Entitlements/Insurance	131	15%	234	1.8
Case Management	108	12%	275	2.5
Mental Health Services	104	12%	353	3.4

Rates of Service Use BY Coverage Type	Medicaid Enrolled (n=399)		Dual Enrolled (n=474)	
	# Using	%	# Using	%
Health Care Services	131	33%	192	41%
Isolation Intervention	27	7%	75	16%
Outreach	108	27%	194	41%
Monitoring Services	90	23%	152	32%
General Information and Referral	49	12%	142	30%
Benefits/Entitlements/Insurance	49	12%	82	17%
Case Management	22	6%	86	18%
Mental Health Services	50	13%	54	11%



This increased likelihood in service use among Asian and Mandarin-speaking residents may be due to the presence of the Asian Health and Service Center (AHSC) which provided culturally-specific services for residents of HWS buildings. It is important to note that culturally specific services included mental health services that did not require enrollment in or billing to Medicaid. Therefore the rate of mental health service use is very likely under-reported among non-White populations, especially Asian populations due to on-site presence of AHSC.

Rates of Service Use BY Race	Asian (N = 115)		Black (N=104)		Other (N=62)		White (N=592)	
	# Using	%	# Using	%	# Using	%	# Using	%
Health Care Services	52	45%	28	27%	21	34%	222	38%
Isolation Intervention	26	23%	≤10		≤10		63	11%
Outreach	79	69%	25	24%	15	24%	183	31%
Monitoring Services	36	31%	23	22%	14	23%	169	29%
General Information and Referral	76	66%	15	14%	≤10		92	16%
Benefits/Entitlements/Insurance	20	17%	≤10		11	18%	91	15%
Case Management	48	42%	≤10		≤10		50	8%
Mental Health Services	≤10		≤10		≤10		82	14%

Rates of Service Use BY Language	English (N = 565)		Mandarin (N=63)		Other (N=85)	
	# Using	%	# Using	%	# Using	%
Health Care Services	200	35%	27	43%	40	47%
Isolation Intervention	58	10%	17	27%	12	14%
Outreach	172	30%	49	78%	36	42%
Monitoring Services	150	27%	15	24%	31	36%
General Information and Referral	80	14%	47	75%	35	41%
Benefits/Entitlements/Insurance	75	13%	≤10		22	26%
Case Management	38	7%	33	52%	17	20%
Mental Health Services	78	14%	≤10		≤10	

Note that in the above two tables we do not report numbers or percentages for any category with 10 or less individuals. This small number suppression is done to protect the anonymity and data privacy of individuals included in this evaluation. We also do not report results from the 160 residents with missing language information; however, individuals with missing language data showed similar service pattern usage as English-speakers.

**Impact Window:** Clients moved into housing at various points in our study period. All participants in this study had at least 6 months of data prior to moving in and 6 months after move-in. HWS residents in this study were enrolled in Medicaid or Medicaid/Medicare for an average of 40 months after the index date – so the results presented in these analyses can be considered an estimate of the program’s effect for an average of 40 months after HWS was implemented.

# STUDY RESULTS



## Key Outcomes & Methods

**What We Assessed:** We assessed the impact of the HWS program on six key health care outcomes (right). In general, the program's goals were to connect patients to needed preventive and ambulatory services (potentially increasing primary care, outpatient mental health, and dental visits) in hopes of reducing expensive acute care services (fewer ED visits and hospital days, lower total cost of care).

**How We Did It:** To assess whether this happened, we examined changes in each outcome before and after a participant moved into housing, then compared those trends over time for people in HWS or non-HWS buildings. Because we were interested first in global program effects, *HWS residents* included all residents in a HWS building. Later, we present analyses limited to residents we know used HWS services.

We used multivariate models that adjust for the effect of demographic and other key differences between participants, allowing us to ensure that differences in *outcomes* are not attributable to differences in those *characteristics*. We provide detail on this *difference in differences* methodology in Appendix B, and full model results in Appendix C.

KEY HEALTH CARE OUTCOMES
Primary Care Visits
Emergency Department (ED) Use
Inpatient Days
Outpatient Mental Health Visits
Dental Visits
Total Cost of all Health Care
Outcomes were expressed in per-member, per year averages. Thus, a score of 4.5 in primary care visits means that, on average, members of that group had 4.5 primary care visits per year.



## Findings: Connecting Residents to Services

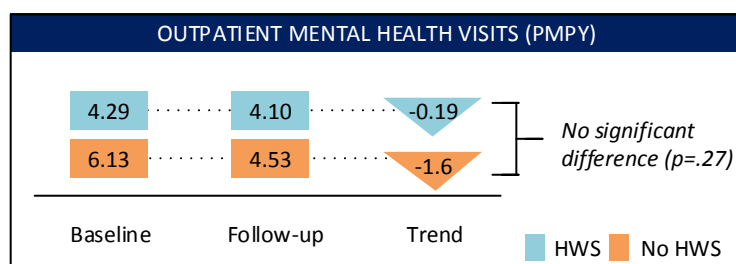
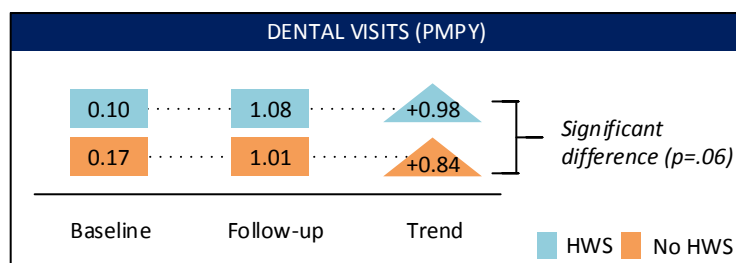
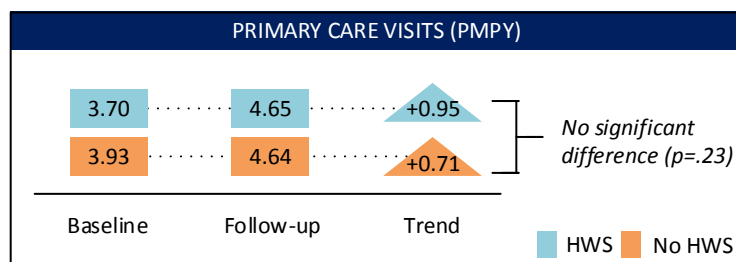
In general, residents all saw an *increase* in their use of primary care and dental services, and a *decline* in their use of mental health services after moving into their housing. We compared those changes between residents in HWS buildings and those in non-HWS buildings to see if those changes looked different across the two groups.

**Primary Care:** We *did not* find evidence that HWS residents experienced greater connections to primary care than non HWS residents. After adjusting for individual resident characteristics, increases in use of primary care were about the same in both groups ( $p=0.23$ ).

**Dental Visits:** We *did* find evidence that HWS residents experienced greater connections to dental care than non-HWS residents. After adjusting, increases in use of dental care were significantly higher for HWS residents ( $p=0.06$ ).

**Outpatient Mental Health Visits:** We *did not* find evidence of significant differences between HWS residents and non-HWS residents in terms of outpatient mental health visits. After adjusting for individual characteristics, both groups saw a statistically comparable decline in visits ( $p=0.27$ ).

### All HWS Residents Compared to Residents of Control Buildings



All DiD models adjusted for individual characteristics including age, gender, race, ethnicity, & language. Full model results and specifications are available in Appendix C.



## Findings: Reducing ED, Inpatient, & Total Costs of Care

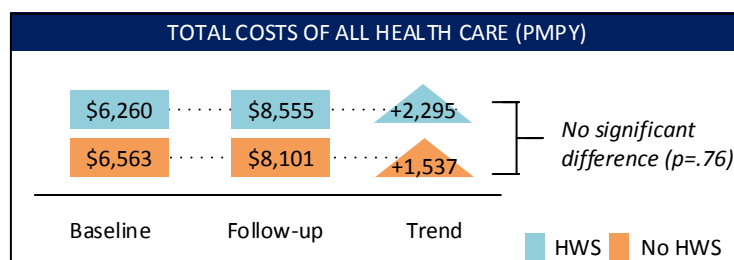
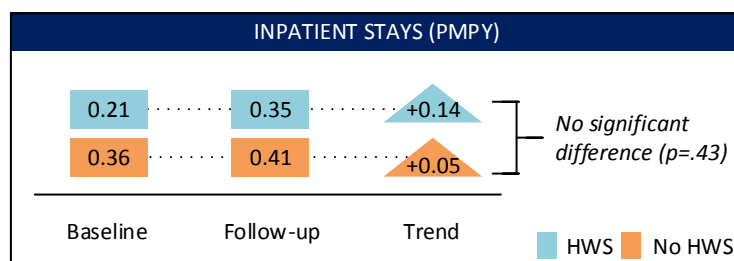
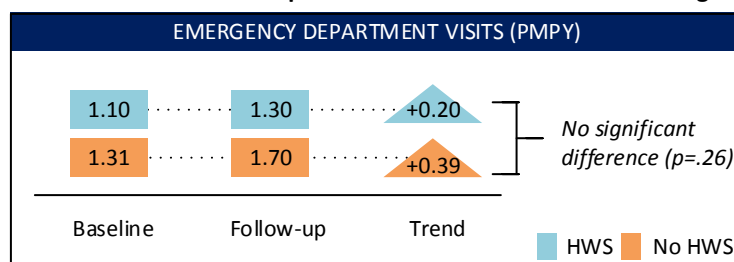
In general, residents all saw an *increase* in their use of emergency departments and inpatient care, as well as their overall health care costs, once they moved into housing. We compared those changes between residents in HWS buildings and those in non-HWS buildings to see if trends looked different across the groups.

**ED Visits:** We *did not* find evidence that HWS residents experienced a lesser or greater increase in ED visits than non HWS residents. After adjusting for individual resident characteristics, increases in ED visits were statistically comparable between groups ( $p=0.26$ ).

**Inpatient Stays:** We *did not* find evidence that HWS residents experienced a lesser or greater increase in inpatient stays than non HWS residents. After adjusting for individual resident characteristics, increases in inpatient stays were statistically comparable between groups ( $p=0.43$ ).

**Total Costs:** We *did not* find evidence that HWS residents experienced a lesser or greater increase in total health care costs than non-HWS residents. After adjusting for individual resident characteristics, changes in costs were statistically comparable between groups ( $p=0.76$ ).

### All HWS Residents Compared to Residents of Control Buildings



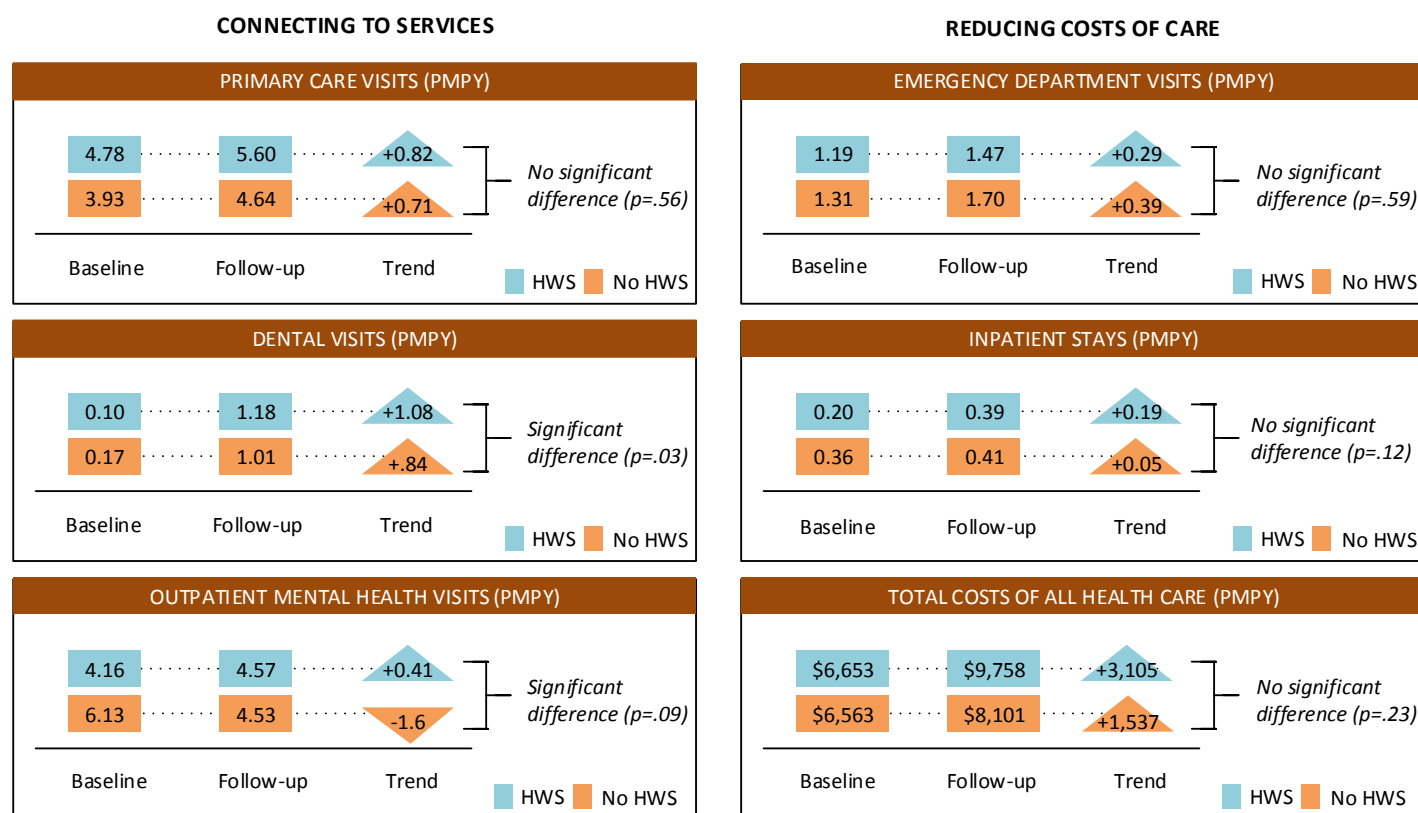
All DiD models adjusted for individual characteristics including age, gender, race, ethnicity, & language. Full model results and specifications are available in Appendix C.



## Results for HWS Program User Subgroup

We examined outcomes for *all* residents in HWS facilities because we were interested in estimating the global effect of placing the HWS model into a housing facility. However, we also examined results just among participants whom we could verify had *actually engaged* in HWS program services during the study period. Results for this subgroup of residents confirmed our findings around connections to dental care; in addition, we found that residents who engaged in HWS services had greater increases in use of outpatient mental health services compared to residents of non-HWS buildings (below). Results for other outcomes were similar to those for HWS building residents overall.

### Subgroup Analysis: Residents Who Engaged in HWS Services Compared to Residents of Control Buildings



All DiD models adjusted for individual characteristics including age, gender, race, ethnicity, & language. Full model results and specifications are available in Appendix C.

**Additional Subgroups:** We also examined variation in program outcomes for residents by enrollment type (results presented in Appendix C). The results for individuals dually-enrolled in Medicaid and Medicare were comparable to those in our “all residents” analysis – significant improvements in connections to dental care, but not in our other key outcomes measures. By contrast, for residents only enrolled in Medicaid, we did not see an impact of the program on any health care outcome.

We further examined variation in program outcomes by length of time in housing, but found that this had no impact on the overall observed results. Other subgroup analyses (by race/ethnicity, for example) were not possible due to insufficient data to support reliable analysis.

# UNDERSTANDING THE RESULTS



## Did Connections to Care Improve?

In general, we found that use of most types of health care services (primary care, dental visits, ED visits, and inpatient stays) increased after residents gained housing, regardless of whether they were in a HWS facility or not. This might represent a natural effect of improved housing stability: persons who gain stable housing may also enjoy improved access to services, or be better able to focus on addressing their health challenges, allowing them to make use of needed care they may well have been doing without. Our results suggest that HWS residents mostly saw similar changes in utilization of these key services over time as residents in non-HWS buildings, with two exceptions:

1

HWS residents saw larger average increases in dental utilization than non-HWS residents, suggesting success in connecting them to dental care.

2

Some HWS residents also saw increases in outpatient mental health utilization. These increases weren't true for HWS residents overall, but were present for the subset of residents who engaged in HWS services.

Increased utilization should not necessarily be seen as positive or negative outcome *a priori*. Utilization of more care may, for example, simply mean someone is getting care they need, but were not previously able to reliably access.



## Did Total Costs of Care Improve?

Residents' total costs of care (expressed as per member per year averages) tended to increase after they were housed – an expected function of increased utilization. We did not see evidence that the trend in costs significantly differed between HWS and non-HWS residents, regardless of whether HWS residents used the HWS services. Overall, the impact of HWS on total health care costs, at least as measured in our study, was not statistically significant.



## How Do Results Compare to the Previous Evaluation?

Results from these analyses are broadly similar to those of the prior HWS evaluation conducted by PSU, with a few key differences. Although the two studies use different methodologies, comparing results can still help illuminate general themes and cross-cutting findings:

### CONSISTENT RESULTS

**DENTAL CARE:** We found that HWS residents had larger increases in dental care than non-HWS residents. This finding is consistent with the prior evaluation, which did not assess dental care specifically but did find that that HWS residents were more likely to use preventive services.

**HOSPITAL & ED USE:** We found that HWS residents did not see significantly different trends in hospital & ED use than non-HWS residents. This is consistent with findings from the prior evaluation, which looked at a shorter outcomes period but also did not find statistically significant differences between HWS users and non-users in these outcomes.

### DIVERGENT RESULTS

**PRIMARY CARE:** We found that HWS residents did not see lesser or greater increases in primary care use than non-HWS residents. The prior evaluation found that users of HWS had higher use of primary care than people in the same buildings who did not use the services.

**DISTINGUISHING FACTORS:** One important distinction is that we compared residents in HWS buildings to those who were not in HWS buildings and thus had no access to the program. The prior study compared residents who used the service to residents in the same buildings who did not (either by choice or for some other reason). In general, comparing to people who opted out of a service they could have accessed can be challenging, because they may differ in important ways from people who chose to use the service.



## What Other Impacts Might Housing with Services Have?

This evaluation focused on understanding how HWS model impacts a narrow range of outcomes – six specific health care utilization and cost metrics. We found evidence of a potential program effect in two of those six, including dental visits and outpatient mental health utilization, but no evidence that rates of ED use, inpatient use, or overall costs of care were impacted. However, it is important to note that there are many potential effects of services that were outside the purview of this study, including better coordinated care, access to needed services in the arenas of social isolation and the social & economic determinants of health, and the overall health & well-being of residents. For example, prior evaluations of housing with services models have found:

1

The prior PSU evaluation of HWS found that program participants enjoyed better food security outcomes & were more likely to use a range or preventive services.

2

A prior CORE/Enterprise study of housing with services found improvements in residents' assessment of their ability to access needed care and in the quality of their care .

3

The CORE/Enterprise study also found that the presence of integrated health services in housing facilities was a predictor of lower ED use and lower health care costs.

These results are not necessarily contradictory. The PSU study includes outcomes such as food security this study does not assess, for example. The CORE/Enterprise study found improvements in subjective access to and quality of care, which is perfectly consistent with people using more health care services. And while the CORE/Enterprise study did find that embedded health services were an important predictor of reduced costs, that analysis occurred over a different time period and included a mix of many housing units of widely varying type (permanent supportive housing, family housing, and housing for seniors and persons with disability).



## What Contextual Factors are Important to Consider?

During our study window, there were substantial changes in the health care policy environment that may provide important context for the results of this study. First, Medicaid expansion under the Affordable Care Act (ACA) and the launch of Oregon's Coordinate Care movement are important systemic changes that may have impacted the access and health care experiences of participants in our study. Oregon's CCOs, for example, were actively pursuing newly created incentivized performance metrics related to primary and preventive care outcomes. – a potential explanation for the overall increase in utilization for participants of all types across the study period.

We also saw a general ramp-down of services provided by the HWS program over the course of our study period. This ramp-down should also be viewed within context. In particular, the local the closure of FamilyCare profoundly impacted HWS program's ability to sustain a high level of services – both because FamilyCare was itself a substantial funder of the program, and because its closure resulted in the transfer of over 100,000 FamilyCare members to CareOregon (another HWS funder), a move that forced CareOregon to reallocate resources away from HWS to support this transition.

In addition to the ramp down of services related to the FamilyCare closure and CareOregon withdrawal, there was also inconsistency in the availability of specific services to residents during both the evaluation period and the life of the HWS program. Some services were available, terminated, and sometimes restored due to fluctuations in funding streams. Such services include pharmacy support, prescription medication management, community inclusion, food security intervention, site-based primary care, and senior companion services. It is not possible to correlate these changes in service availability with the evaluation results.

More details on the changes in the policy and funding environment are provided in Appendix D.





## What Were the Limitations of this Study?

**Variation by Subgroups:** There are several substantial limitations to this evaluation that could be addressed in future work. First, due to insufficient sample size, we were unable to perform substantial subgroup analyses for culturally specific groups, for residents with specific medical histories or challenges, or others. While overall results from a program are important, understanding variation in results is also important – it may be that the HWS program has important utilization or cost impacts for some kinds of residents.

**Inability to Assess Culturally Specific Intervention Components:** Second, the lack of culturally specific subgroup data is a challenge because a key HWS program goal was to integrate culturally specific services into the program. An early assessment of the target population identified that about 30% of the residents represented specific cultural groups including Russian, Iranian, Chinese, Korean, and Vietnamese, and HWS initiated contracts with culturally fluent agencies who serve these communities to support outreach, education, and services delivery. By not conducting a subgroup analysis, we are unable to evaluate the success of these specific activities, which may be an important tactic for addressing gaps in care or health disparities. Future evaluations should explore ways of identifying comparison facilities with more racially and ethnically diverse residents to allow for these culturally-specific analyses.

**Narrow Outcomes Set:** Our study focused on six key health care utilization and cost metrics, but HWS could have significant impacts on a broader set of program effects we did not assess. Health care quality outcomes, direct or subjective measures of health and well-being, and measures of access to a broader range of health-related medical and social services might be necessary to comprehensively assess the true impacts of program like HWS.

**Timing Effects:** Our study focused on assessing longer-term cost and utilization outcomes, but it was not able to assess potential *variation in outcomes* over time, because data were not sufficient to support reliable point estimates across shorter time intervals. Thus, while we were able to compute average costs across the entire post-housing period for each group, we could not determine whether cost impacts might have changed over time – for instance, by being present in the early months after acquiring housing but attenuating over time. This is of particular note because of changes we know occurred in the program itself (with the reduction in service intensity due to funding challenges in the latter months of our study window).



## How Might Similar Programs Ensure Robust Assessments?

This evaluation has revealed several recommendations that could help address the limitations outlined above and strengthen future assessments of programs similar to HWS. Three things programs like HWS could do *at the front end* to ensure robust assessments in the future include:

1. **Invest in Comprehensive Data Collection and Outcomes Measurement.** There are many reasons to implement programs like HWS, including better coordinated care, improved access to resources across the health continuum, changing utilization and cost patterns, and resident's health and well-being. Programs should think prospectively about their impact model, and invest early in ways to capture that impact across the full spectrum of their model.
2. **Ensure ability to explore variation.** Even when program evaluations don't find an overall effect, the program may work well for some types of clients. Programs should plan from the start to ensure they can explore variation in outcomes, both by making an effort to enroll diverse clients in adequate numbers, and by ensuring that assessment data will support robust subgroup analyses. Doing so will help ensure that results can be used to identify what is working in a program, for whom, and under what circumstances -- and to identify and optimize what isn't working as well.
3. **Ensure continuity of services.** The issue of continuity of service is important with regard to both having and measuring impact. The issue of the variability of service and the need to maintain a consistently available



package of service is equally important. Our study was positioned to assess average outcomes across the time after people moved into housing, but variations in that time period might impact that average estimate. When funding was reduced and services cut later in the study period, it may have impacted outcomes by attenuating potential program effects that would otherwise have been apparent. Our study was not positioned to explore variation in outcomes across different parts of the follow-up period (by looking at outcomes before and after the budget reductions, for example), but future evaluations could prospectively plan for such possibilities and ensure data will support granular analysis of outcomes at different stages of the intervention.

# APPENDIX A. HOUSING WITH SERVICES PROGRAM



## Housing with Services Project Overview

Housing with Services (HWS) was formally launched in 2013 following an extensive community-based planning process and including the support of a State Innovation Model (SIM) grant from the Center for Medicare and Medicaid Innovation (CMS). The launch involved the creation of a Limited Liability Corporation (LLC) and financial commitments from nine non-profit or public partners in the LLC: Cedar Sinai Park, CareOregon, Home Forward, REACH Community Development, Asian Health and Service Center, Jewish Family and Child Services, Sinai In-Home Care, Cascadia Behavioral Health and LifeWorks NW. Other key funders included Meyer Memorial Trust, Family Care, the Harry and Jeannette Weinberg Foundation, the Hedco Foundation, Enterprise Community Partners and Providence Health Systems.

The target population included 11 geographically proximate buildings, housing 1408 seniors and people with disabilities. The population is 55 and over. Most are Medicaid eligible and approximately 60% are dually eligible for Medicaid and Medicare. Needs assessments conducted by Portland State University's Institute on Aging indicated barriers to physical and mental health services, high levels of chronic and co-morbid health conditions, extremely high frequency of anxiety, depression, other serious mental health conditions, and food insecurity.

Following a health risk assessment and services utilization review of the resident population, HWS launched a services coordination program model that provided site-based access to health navigation, mental health services, culturally specific services, food insecurity interventions, prescription medication management, community inclusion, primary care, community inclusion, eviction prevention, crisis case management and social services and supports. The model was launched with program coordination and administrative support from the LLC staff and site-based staff assigned by project partners. It is important to note that due to changes in funding commitments by project partners not all of these services were available to residents throughout the project.

As of December 31st, 2017, staff were engaged in care coordination and services with 1201 (unduplicated) of the 1407 residents, which represents a penetration rate of 85% for the resident population. 10,127 service contacts and over 5883 hours of direct service hours were documented.



## Resident Eligibility and Service Access

The following criteria were established to determine both eligibility for participation in the program and for determining which residents would be prioritized for delivery of services:

PROGRAM ELIGIBILITY & PRIORITY
Residents who live in the designated residences selected for the project are eligible for program services.
Residents with the highest risks will have the highest priority for clinical, social and health utilization improvements and for the assignment of program resources.
Residents with health risks that predict future risk or present an acute phase of illness or circumstances (i.e. a fall or eviction) will have the second highest priority for program resources
All residents in the designated buildings will have access to health promotion information, guidance and support to help them achieve their health, psychosocial goals and community engagement goals
Access to services may be provided in in the resident's apartment, in the buildings, in a centrally-located wellness center, or accessed through transportation services.



## Program Outcomes and Metrics

The following program outcomes goals and metrics were identified in the HWS business plan and used as the basis for proposals submitted to various funding sources:

PROGRAM IMPACT METRICS	
Reduced ED visits & inpatient stays	Increased use of primary care
Reduced ED visits & inpatient stays for chronic conditions	Improved integration and coordination of physical and behavioral health services
Increased access to preventive services including labs, medication checks, and screenings	Reduced housing evictions
Improved individual health indicators	Increased engagement in health care decision making and self-management



## Program Services

The services made available to eligible residents outlined below were designed to promote health and healthy behaviors, recognize and respond to gaps in services delivery systems, increase residents' involvement in health care decisions and increase access to health care, social services and supports. It is important to note that due to changes in funding commitments by project partners not all of these services were available to residents throughout the life of the project.

PROGRAM SERVICES	
Care coordination: primary, specialty, mental health care	Medication review and counseling
Physical health service referrals	Onsite behavioral health services
Behavioral health service referrals	Food insecurity support and intervention
Repeated assessments of health & social needs	Community inclusion facilitation and support
Referral for in-home care support	Personal health goal setting, support, and coaching
Nutrition counseling	Trained volunteer peer support
Health education & coaching, goal setting, support	Site based primary care services (Oct 2015 – 2017)



## HWS Staffing

Two project management positions (1.70 FTE) were directly employed by HWS and were responsible for support of the LLC, administrative and operational support of the project and management of the services coordination team.

A Project Director (.70 FTE) provided management support for the program.

An Operations Director (1.0 FTE) managed administrative operations, program services and supported the services coordination team. This position also coordinated health promotion events for all 11 buildings and managed Family Metrics, the care coordination data base.



## Care Coordination Staffing and In-Kind Direct Services

While there were staffing changes that occurred from 2013-2018, the following staff were consistently available through that time period: Resident Services Coordinators, Health Navigators, Mental Health Providers, and the Health and Housing Case Managers.

Additional site-based staff that were also involved during this time period but not for the life of the project were: Pharmacy Interns to assist with medication management, a Transition Specialist to assist residents with transition from ER and in-patient hospitalization and a food insecurity team to assist with food distribution and provide support to a resident services exchange program. A site-based primary care clinic and Federally Qualified Health Center (FQHC) were also briefly available to building residents.



## The Role of the Resident Services Coordinator

Resident Services Coordinators (RSC) are positions hired and supervised by the housing organizations, supported by rental revenue from the housing, philanthropic support or internal resources of the housing organizations. In Oregon, there are no ongoing public funding streams to financially support the RSC positions. All of the three housing agencies participating in HWS had an RSC assigned to each building. There were significant differences among those agencies in how those staff resources were deployed. In some cases, a full time RSC was assigned to a single building and in other cases the RSC was assigned to support multiple buildings. In all cases the RSC reported significant case overload and having limited capacity to provide adequate support to the residents in their building(s).

The RSC's performed a critical role as an initial referral source, in providing ongoing support and as full participants to the Services Coordination Team. The RSC's were consistently the most knowledgeable regarding their resident population and served as an early warning system to identify emergent health and housing crisis situations.



## Changes in Services Delivery Strategy

Beginning in June 2017, *FamilyCare* and *CareOregon* determined that more active targeted outreach to high risk/high need members as differentiated from a population health approach would be a more efficient use of staff resources and would yield more significant cost benefits.

*FamilyCare* and *CareOregon*, continued to function “plan blind,” and facilitate warm hand offs to the appropriate insurer or provider as appropriate.



## Key Program Elements

Three features of the program were viewed as essential to achieving positive health and financial outcomes for the program: (1) cultural fluency in services delivery, (2) improved access to care through a service/activities hub, site based and in-home services (3) resident involvement in the design, implementation and ongoing oversight of the program.

- 1. Site-Based Services and a Service Hub:** At the heart of Housing with Services is the delivery of site-based services. Site-based staff visited residents in the buildings or in their apartments to conduct assessments, educate them about health services and medications, identify services and assistance that they need, reinforce their achievements, help them identify and overcome barriers to progress, and promote community inclusion. A services hub located in one of the buildings geographically proximate to most of the project buildings provided an easily accessible location for resident involvement and health promotion activities.
- 2. Cultural Fluency in Services Delivery:** An early assessment of the target population identified that about 30% of the residents represented specific cultural groups including Russian, Iranian, Chinese, Korean and Vietnamese. Contracts with culturally fluent agencies who serve these communities were developed to support outreach, education and services delivery. LGBTQ and disability issues were also addressed in this process.
- 3. Resident Involvement:** A Resident Advisory Council included representatives from all project buildings and ultimately engaged over 120 residents in project oversight, outreach, education, food distribution and a resident services exchange. A culturally specific health promotion program for Asian residents was also part of this strategy.

# APPENDIX B. STUDY DESIGN

The goal of this evaluation was to assess the impact of the Housing with Services program on residents' health care utilization and cost. This Appendix describes the study design we used to address this objective.



## Data Sources

We used three data types for this evaluation: Medicaid and Medicare claims and enrollment data; administrative housing data; and program data.

**Medicaid and Medicare Claims and Enrollment Data:** The Oregon Health Authority (Medicaid) and CareOregon (Medicaid and Medicare) provided datasets that included member enrollment and demographic information, and detailed medical, behavioral health, dental, and pharmaceutical claims.

**Administrative Housing Data:** Cedar Sinai Park, HomeForward, and REACH CDC provided administrative housing data for residents of the case and control buildings, including names, addresses, demographic information, and move-in and move-out dates.

**Program Data:** CareOregon and the Asian Health and Service Center provided HWS program data, including the name and address of each resident who accessed services, and the date and type of service used.



## Study Population

To be included in the study (Exhibit A1), residents had to meet the following eligibility criteria:

### Inclusion Criteria

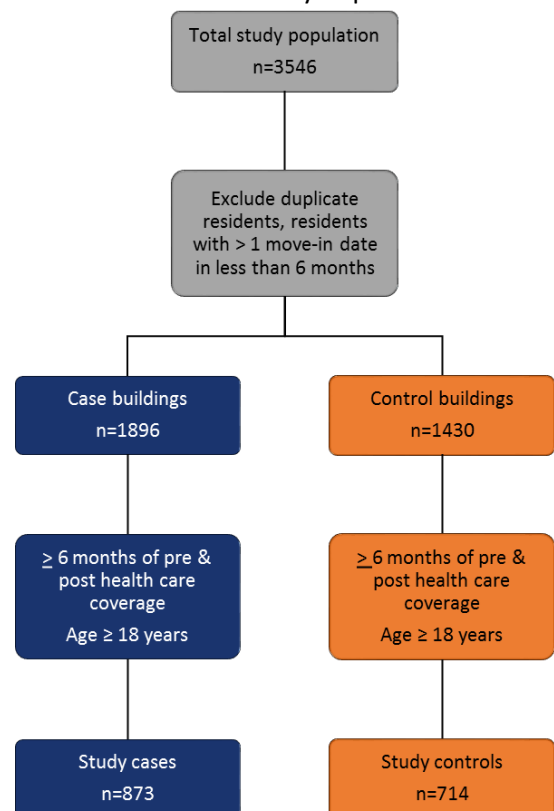
- 18 years of age or older
- Lived in a case or control building at some point during the study window, September 2013 – June 2018
- Have at least 6 months of Medicaid or dual Medicaid/Medicare coverage pre- and post-index date

### Exclusion Criteria

- Lived in both case and control buildings during the study window

There were a total of 873 residents in the case buildings and 714 residents in the control buildings eligible for this evaluation.

**Exhibit B1. Study Population**





## Housing Residents' Characteristics

In order to determine which variables to control for in our analysis, we constructed demographic and health profiles of residents eligible to be included in this study (Exhibits B2 and B3). Demographic characteristics were taken from administrative housing data; chronic condition flags were calculated from medical claims data.

There were some substantial differences in demographics between residents of case and control buildings. Cases were more likely to be 65 years of age or older and to be male, compared to controls.

Cases were also more likely to be Asian and to indicate something other than English as their primary language; this is unsurprising, given that the Asian Health & Service Center provided services in case buildings. However, it is worth noting that approximately 20% of the case group and 35% of the control group did not report a primary language.

We observed no differences in the percent of cases or controls who reported no income.

There was little difference in medical complexity between cases and controls. Controls were more likely than cases to have a chronic mental health diagnosis.

**Exhibit B2.** Demographic profiles for residents of case and control buildings.

	CASES N=873		CONTROLS N=714	
	N	%*	N	%*
<b>Age Groups</b>				
<35 years	36	4.1%	51	7.1%
35-64 years	430	49.3%	424	59.3%
≥65 years	407	46.6%	239	33.5%
<b>Gender</b>				
Female	389	44.6%	365	51.1%
Male	483	55.3%	349	48.9%
<b>Race</b>				
Asian	115	13.2%	20	2.8%
Black	104	11.9%	125	17.5%
White	592	67.8%	511	71.6%
Other	39	4.5%	45	6.3%
Declined	23	2.6%	13	1.8%
<b>Ethnicity</b>				
Hispanic	40	4.6%	35	4.9%
Non-Hispanic	783	89.7%	666	93.4%
Declined	50	5.7%	12	1.7%
<b>Language</b>				
English	565	79.2%	434	95.4%
Other	148	20.8%	21	4.6%
<b>\$0 Income</b>	137	15.7%	101	14.1%
<b>Medicaid/Medicare dual-enrolled</b>	474	54.5%	320	44.8%

\*Percent does not include missing

**Exhibit B3.** Health profiles for residents of case and control buildings

Variable	CASES N=873		CONTROLS N=714	
	N	%	N	%
<b>Chronic Conditions</b>				
Any chronic physical health condition	653	74.8%	521	73.0%
Any chronic mental health condition	367	42.0%	358	50.1%
Physical AND mental chronic conditions	293	33.6%	285	39.9%
<b>Top 10% of CDPS* scores</b>	172	19.7%	146	20.4%

\*The Chronic Illness and Disability Payment System predicts a Medicaid enrollee's future health care cost based on their medical complexity





## Analysis

We used a *difference-in-differences* (DiD) analysis to assess whether the coordination and provision of services through the HWS program impacted residents health care utilization and cost. A DiD analysis compares the change over time in the outcome (e.g. primary care visits) in the case group to the change over time in the control group. This type of analysis accounts for the fact that, at the population level, health care utilization will change over time due to factors unrelated to the intervention, such as changes in health care policy. By comparing the change in the case group with the change in the control group, we ensure that any differences we might see are most likely due to the HWS program, and not to these external factors.

We calculated the change over time in each health care outcome as the difference in an individual resident's outcome before and after September 2014, the date HWS officially began delivering services at the 11 case buildings.

We investigated 2 different analytic case groups:

1. All residents of the case buildings, regardless of if they had used services
2. Residents of case buildings who actually used services

For the above DiD analysis, our control group was comprised of all eligible residents of control buildings. We also conducted the DiD analysis for all residents of case and control buildings, stratified by residents' insurance type: Medicaid-only residents vs. dual Medicaid/Medicare residents. All analyses were adjusted for age, gender, race, ethnicity, and language.

### Analytic Definitions

***Residents of HWS Buildings.*** We used the administrative housing data to determine all residents of HWS buildings.

***Residents who used services.*** We used the HWS program data to flag if a resident in one of the case buildings had ever used any of the HWS services.

***Medicaid-only vs. Dually-enrolled.*** We used the Oregon Health Authority and CareOregon enrollment data to flag residents of both case and control buildings as either enrolled only in Medicaid or dually enrolled in Medicare and Medicaid.

## APPENDIX C. SUPPLEMENTAL TABLES

This appendix provides supplementary tables to the main results. Exhibit C1 gives the percent of residents who used each domain of health care pre- and post-index date. Exhibits C2 – C4 give the average change over time for the case and control groups, the DiD coefficient, and the associated p-value for each health care outcome for the DiD analyses presented or discussed in the report.

The *proportion* of residents who used health care varies across the five domains (Exhibit C1), with PCP being the most commonly accessed type of care both before and after our index date. Dental utilization was extremely low among both groups prior to our index date; however, it increased substantially over the study window, with over half of case and control residents accessing dental care in the follow-up period.

Across all of our health care outcomes, a greater proportion of both cases and controls used care in the period following the implementation of the HWS program than in the period before HWS was implemented.

The DiD analysis looks at the total *amount* of care used over the study window; a positive value for a DiD indicates that the cases' use of that health care domain increased (or decreased) more than did the controls' use of the same domain.

Both cases and controls showed an increase in the amount of health care use across several domains of health care, as well as total cost of care, over time (Exhibit C2). The exception to this is OPMH, which decreases over time, particularly among controls.

In the DiD analyses, we see positive trends in some health care outcomes for cases versus controls, with dental care showing a statistically significant result. However, several domains show no impact of the program.

Exhibit C3 gives the results of the DiD analysis for residents of case buildings who actually used the services. The results mostly follow the same pattern as the main analysis; we observe a positive impact of the HWS program on use of dental care, but no

### Abbreviations

DiD: Difference-in-differences

ED: Emergency department visits

IP: Inpatient stays

OPMH: Outpatient mental health visits

PCP: Primary care visits

PMPY: Per member per year

**Exhibit C1.** Percent of cases and controls using health care services at baseline and follow-up.

	Cases		Controls	
	Baseline	Follow-up	Baseline	Follow-up
PCP	65.1%	89.5%	65.7%	89.8%
ED	38.1%	66.1%	40.8%	72.1%
IP	12.7%	36.2%	15.5%	35.7%
OPMH	25.5%	38.8%	33.5%	45.5%
Dental	2.8%	57.7%	4.5%	54.3%

*\*DiD adjusted for age, gender, race, ethnicity, and language*

**Exhibit C2.** Impact of the HWS program on PMPY health care utilization and cost for all residents of HWS buildings.

	Change from Baseline		Adjusted* DiD	p-value
	Cases N=873	Controls N=714		
<b>Utilization</b>				
PCP	0.95	0.70	0.29	0.239
ED	0.20	0.40	0.16	0.269
IP	0.14	0.04	0.09	0.431
OPMH	-0.19	-1.61	0.76	0.266
Dental	0.99	0.83	<b>0.11</b>	<b>0.063</b>
<b>Total Cost</b>	\$2295.79	\$1537.22	\$697.45	0.763

*\*DiD adjusted for age, gender, race, ethnicity, and language*

impact on most other health care utilization domains. However, we do see a positive impact of the program on outpatient mental health care.

Exhibit C4 gives the results for the stratified analysis looking separately at Medicaid-only and dual Medicaid/Medicare enrolled residents. As stated in the main report, we observed a similar pattern for dually-enrolled residents: a positive impact of the HWS program on connection to dental care. For Medicaid-only enrollees, however, we observed no impact of the HWS program on our health care outcomes

**Exhibit C3.** Impact of the HWS program on PMPY health care utilization and cost for residents who used services.

	Change from Baseline		Adjusted* DiD	p-value
	Cases N=450	Controls N=714		
<b>Utilization</b>				
PCP	0.82	0.70	0.34	0.569
ED	0.29	0.40	0.17	0.587
IP	0.19	0.04	0.09	0.122
OPMH	0.41	-1.61	<b>0.91</b>	<b>0.097</b>
Dental	1.08	0.83	<b>0.14</b>	<b>0.033</b>
<b>Total Cost</b>	\$3105.13	\$1537.22	\$842.93	0.226

*\*DiD adjusted for age, gender, race, ethnicity, and language*

**Exhibit C4.** Impact of the HWS program on PMPY health care utilization and cost, stratified by insurance type.

Medicaid-Only					Dually-enrolled in Medicaid & Medicare			
	Change from Baseline		Adjusted* DiD	p-value	Change from Baseline		Adjusted* DiD	p-value
	Cases N=399	Controls N=394			Cases N=474	Controls N=320		
<b>Utilization</b>								
PCP	0.29	0.40	0.38	0.733	1.51	1.08	0.46	0.171
ED	0.12	0.43	0.23	0.207	0.27	0.35	0.22	0.836
IP	0.09	0.04	0.14	0.447	0.19	0.04	0.09	0.874
OPMH	-0.63	-0.80	1.20	0.800	0.183	-2.60	1.13	0.189
Dental	1.05	0.92	0.18	0.365	0.94	0.72	<b>0.13</b>	<b>0.016</b>
<b>Total Cost</b>	\$1589.78	\$1340.90	\$884.87	0.768	\$2914.17	\$1803.43	\$112.29	0.705

*\*DiD adjusted for age, gender, race, ethnicity, and language*

# APPENDIX D. POLICY AND FUNDING ENVIRONMENT



## Setting the Stage: 2010-2012

In 2010 the Affordable Care Act (ACA) was passed, which paved the way for Oregon to expand its' Medicaid program. This happened as Oregon was already leading the nation in development of policies and strategies to reduce health care costs and improve health outcomes through an increased focus on improved health care access, preventative care and social determinants of health. During the next few years Oregon expanded Medicaid eligibility and adoption of the other provisions of the ACA. By 2015, 95% of Oregonians had health care coverage.

From 2011-2012, Oregon's Health System Transformation initiative was launched. This initiative provided staffing and resources to pursue federal grants to support innovative health program and policy development. It was during this time period that the state invited the Housing with Services planning group to participate in development of a State Innovation Model (SIM) grant proposal that ultimately provided \$17 million to Oregon for innovative health program development. HWS received \$500,000 of this grant to complete the planning process, launch the project and conduct a program evaluation.



## A Volatile Time for Health Care Policy and Program Development: 2013-2018

When HWS launched in 2013 the Oregon Health Authority (OHA) was in the process of issuing the first round of contracts to the newly established Coordinated Care Organizations (CCO's). The CCO's, hospitals and insurance providers, due to an interest in reduced health care costs and improved health, were increasing their community investments in social determinants of health. This activity was supported by state policy that created funding incentives (and disincentives) for achievement of performance metrics related to specific health care outcomes. The OHA was also developing policies that supported use of Medicaid funding to allow Medicaid reimbursement for an expanded menu of preventative health services including food insecurity, transportation and housing stability. Housing with Services received significant direct and in-kind funding from CCO's, insurance providers and hospital systems as a result of these activities.

The policies and funding initiatives described above were strongly supported by provisions of the ACA and executive appointments to federal agencies made by the Obama administration. After the 2016 election there was a significant shift away from support of ACA related policy changes, funding initiatives and Medicaid Waiver revisions that would have expedited implementation of the ACA. Federal agency leadership and policy oversight from the White House directed these changes.

Finally, while there had been consistent interest from the health care sector in supporting health and housing integration for low-income seniors and people with disabilities living in publicly subsidized housing, there was a dramatic shift in funding priorities away from this population focus to support Permanent Supportive Housing for homeless individuals, generally referred to as "hotspotting." In the Portland metro area, health care sector funding currently has been more prioritized for Permanent Supportive Housing for homeless individuals over the Housing with Services population of low-income seniors and disabled adults who already reside in subsidized housing.



## Funding and Policy Challenges to Providing Mental Health Services

Needs assessment data indicated a high degree of prevalence of a wide range of mental health conditions within the resident population. Two critical issues emerged:

- It was initially anticipated that formal enrollment of building residents in Medicaid mental health services would eventually provide funding for mental health staffing through Medicaid reimbursement to the mental health agencies. Formal enrollment required that residents' complete enrollment forms and sign information releases to comply with Medicaid requirements. It became clear early in the project that residents were unwilling to formally enroll in Medicaid to receive mental health service because they believed that identifying as needing mental health services could endanger their housing status. Consequently, even though some level of mental health support was provided, the services were not reimbursable and ultimately terminated due to lack of ability to sustain them financially.
- Medicaid supported mental health services were available on a fee for service reimbursement basis to the majority of the resident population. The Asian Health and Service Center, as a licensed, culturally specific mental health provider had funding streams that supported a more flexible case rate approach to providing services to address anxiety, depression, isolation and serious and persistent mental health conditions. Consequently, residents receiving services from AHSC had a much less stigmatized and significantly higher level of engagement in this service. Additionally, due to the more flexible, case rate funding source, it was financially sustainable.



## The Role of the Affordable Housing Sector

Public housing agencies including Housing Authorities, Community Development Corporations, and national organizations involved in housing development, financing and advocacy had been aware for some time that improved access to health care and preventative health services were important contributors to housing stability, independence and quality of life for residents of publicly subsidized housing settings.

Based on research by the World Health Organization, housing had also been recognized as among the most important social determinants of health. Access to affordable, safe and stable housing was established as a major contributor to individual and population health. In addition, emerging research was strongly indicating that access to health and behavioral health care were key contributors to eviction prevention and housing stability.

Consequently, nearly all of the major housing organizations including NeighborWorks America, Enterprise Community Partners, the National Housing Conference and National Community Reinvestment Coalition showcased health and housing integration models at national conferences and made grant funding available for research and project development. Leading Age (a D.C. based senior advocacy organization) also played a major role in supporting research, policy change, program and partnership development during this time period due to the large number of Medicaid and Medicaid/Medicare eligible seniors living in publicly subsidized housing.



## Changes in the Portland Metro Health Care Market

The closure of *FamilyCare* was announced in December 2017 and became effective January 31<sup>st</sup>, 2018. *FamilyCare* had provided grant funding to HWS from 2015-2017 and was reviewing a third-year grant renewal for 2017-18, prior to the closure announcement. The closure announcement resulted in a loss of a \$120,000 annual grant; about a third of the HWS' total budget.

Immediately following *FamilyCare*'s announcement, *CareOregon* notified HWS that they would be withdrawing service navigation staffing from HWS buildings, a core element of the direct service strategy. They indicated that due to the transfer of over 100,000 Family Care members to *CareOregon*, additional staffing resources would be required to support the transition and allocation of direct service staffing to HWS was no longer possible. The combined impact of the loss of *FamilyCare* and *CareOregon* staffing required that HWS support be terminated, effective March 2018.