

Using Pay for Success to Expand Permanent Supportive Housing in Rhode Island

A Feasibility Study

July 2017

Social Finance, Inc.

10 Milk St, Suite 1010

Boston, Massachusetts 02108

Prepared by: Jake Edwards, Justin Feng, Anna Fogel, and Jeff Shumway

About this report

This report is the result of a feasibility study funded by the Department of Housing and Urban Development and the Department of Justice through their Pay for Success Permanent Supportive Housing Demonstration Program. The study focused on assessing the feasibility of using Pay for Success financing to expand access to Permanent Supportive Housing for a population continuously cycling between the criminal justice system and homeless services in Rhode Island.

About Social Finance

Social Finance is a 501(c)(3) nonprofit organization dedicated to mobilizing capital to drive social progress. We believe that everyone deserves the opportunity to thrive, and that social impact financing can play a catalytic role in creating these opportunities. We design and manage public-private partnerships that tackle complex social challenges, such as achievement gaps, health disparities, and prisoner recidivism.

Core to our work is the development of Pay for Success financing, also referred to as Social Impact Bonds. An innovative funding model, Pay for Success helps to measurably improve the lives of people in need by driving government resources toward better, more effective programs.

Acknowledgements

This work has benefited greatly from the support of our partners at the Rhode Island Coalition for the Homeless, the Harvard Kennedy School Government Performance Lab, and at the State. Special thanks to the members of our working group who regularly shared their experience, guidance, and passion: Matt Santacroce and Keshav Poddar (Office of the Governor), Jessica Mowry (Rhode Island Housing), Mike Tondra (Office of Housing and Community Development), Michelle Brophy (Department of Behavioral Healthcare, Developmental Disabilities and Hospitals), Caitlin O'Connor and Teresa Foley (Department of Corrections), Marlanea Peabody and Linnea Tuttle (Executive Office of Health and Human Services), Eric Hirsh, Darryl Kosciak and Maria Cimini (Rhode Island Coalition for the Homeless), and Alice Heath and Danielle Cerny (Harvard Kennedy School Government Performance Lab).

Table of Contents

Executive Summary..... 1

Context, Objectives, and Methodology 3

 Context..... 3

 What is Pay for Success?..... 3

 Overview and Objectives 4

 Methodology..... 5

Feasibility Assessment 7

 Rhode Island Housing and Services Landscape..... 7

 Rhode Island Service Providers 9

 Definition of Target Population 10

 Selection of PSH Outcomes..... 15

 Cost-Benefit Analysis 17

 Investor landscape 22

Recommendations and Next Steps..... 23

 Project Design Considerations and Recommendations 23

 Project Scale and State Resources Considerations and Recommendations..... 24

 Operational Considerations and Recommendations..... 25

 PFS Feasibility Recommendations and Next Steps 26

Appendix 27

 Feasibility Methodology..... 27

 Stakeholder Interviews and Project Governance Members..... 29

 PSH Evidence Base 31

 Illustrative Project Budget 36

 Learning from other jurisdictions 37

 Glossary..... 39

Executive Summary

From November 2016 to April 2017, Social Finance and the Rhode Island Coalition for the Homeless (the Coalition) conducted a feasibility study to assess the opportunity to expand access to Permanent Supportive Housing (PSH) for vulnerable homeless individuals in Rhode Island via Pay for Success (PFS) financing. This study was funded by a grant from the Department of Housing and Urban Development and the Department of Justice; there is also grant funding available for project development and \$1M to help the state cover a portion of its potential outcome payments, if the state decides to move forward with a Pay for Success project.

Over six months, Social Finance and the Coalition worked closely with Rhode Island government partners to compile a subsidized housing and supportive services inventory; aggregate administrative data to understand the target population and its utilization across housing, criminal justice, and healthcare systems; select project outcomes and analyze the PSH cost-benefit for different sub-populations; and develop recommendations on project scale and operations.

The feasibility study findings suggest that there is a strong potential for a PFS project to expand PSH in Rhode Island.

Unmet need and demand for services. Based on the scale of the homeless population with high utilization of emergency services and the limited availability of services, there is an unmet need for subsidized housing and supportive services. There is a significant population that uses both the criminal justice and homelessness systems and relies on Medicaid to cover costly emergency healthcare services. PSH has strong evidence demonstrating its likely impact on improving this target population's outcomes and reducing its costly utilization of emergency services.

Capacity for high-quality service provision. Rhode Island has established a coordinated, centralized process for identifying high-needs homeless individuals and referring them to available services. Existing initiatives demonstrate the state and stakeholders' commitment to ending chronic homelessness and enhancing preventative healthcare services. While a strong network of committed nonprofit organizations and state agencies offer a promising foundation for Pay for Success, further in-depth assessment of local service providers' capacity to scale a high-quality intervention would be required.

Positive cost-benefit analysis. Of the 5,300 individuals that have interacted with the shelter system in the past two years, a subset of 125 to 175 individuals incur a disproportionate amount of criminal justice, Medicaid, and shelter costs. These "high utilizers" incur on average \$31,000 per year in Medicaid costs; \$11,000 per year in criminal justice costs; and \$2,100 per year in shelter costs. We reviewed the literature and evidence base of PSH and applied expected effect sizes to this population, estimating annual savings of \$15,000-\$20,000 per individual. The total annual cost of PSH is close to \$20,000 per individual served, but about half of that cost will be covered by existing state and federal resources, such as the Housing Choice Voucher Program or Medicaid. Therefore, this analysis indicates that a targeted initiative to expand PSH would be a cost-beneficial endeavor for the state. In addition, this cost-benefit is improved by the commitment of a \$1M federal grant to help the state make its outcome payments.

Alignment with state policy priorities. The state has demonstrated strong commitment to ending chronic homelessness and providing resources to a potential PFS project. Based on our analysis of the target population and cost-benefit of the program, we would expect the Department of Corrections, the

Executive Office of Health and Human Services, and the Office of Housing and Community Development to be involved in a PFS project.

We recommend that the state pursue a PFS project to expand PSH to vulnerable homeless individuals in Rhode Island, in order to strengthen local communities, enhance care coordination among state agencies, and promote the provision of evidence-based programming among local service providers.

In order to move from feasibility into the development of a PFS project, the state should focus on three primary next steps: 1) **Determine project scale** in terms of the number of individuals to be served by a PFS project and the state's maximum outcomes budget; 2) **Define the mechanism for the state to make outcome payments**; and 3) **Identify existing state resources** which will be leveraged in a PFS project, including existing housing vouchers and funding for wraparound support services.

Context, Objectives, and Methodology

The purpose of this study is to assess the feasibility of using Pay for Success to expand access to Permanent Supportive Housing for vulnerable homeless individuals in Rhode Island who are high utilizers of homeless services, the criminal justice system, and emergency health services.

Context

According to Rhode Island's 2016 point in time count, there are a total of 1,160 homeless individuals in the state, representing 952 total households.¹ Over the course of the year, this figure increases significantly—throughout 2016, a total of 2,883 individuals entered the homeless shelter system.² This population suffers from a variety of co-morbidities including substance use, physical and psychiatric disabilities and chronic health concerns.

In addition to the painful human costs of homelessness, the fiscal costs are significant for Rhode Island. The 150 highest cost utilizers within the homeless population incur an average of \$44,160 per year to the criminal justice, healthcare, and shelter systems.³ These high utilizers experience an average of 117 days in shelters and 1,628 days in the Department of Corrections over the past seven years, and incur an average of \$30,920 in annual Medicaid costs.⁴

The state has taken major steps to understand and address the challenges facing the homeless population. The state is participating in Community Solutions' Zero:2016 Campaign to end chronic homelessness and has committed to a Housing First approach across its providers. Rhode Island has invested additional resources to expand needed support services, such as leveraging the Cooperative Agreement to Benefit Homeless Individuals (CABHI) grant from US Department of Health and Human Services and State Medicaid's Home Stabilization Program. In addition, led by the Coalition, Rhode Island has a highly coordinated and centralized state-wide Continuum of Care which has developed a by-name list and evaluates individuals by acuity level.

While the state has dedicated 21,000 housing subsidies and braided funding from the state and federal levels for services, there remains an unmet need for subsidized housing and supportive services for individuals who are experiencing homelessness. Expanding access to Permanent Supportive Housing (PSH)—an evidence-based approach to tackling chronic homelessness through a combination of housing and services—is regarded as a critical component to promoting stability for the highest acuity homeless individuals. Efforts to expand PSH align with broader state initiatives to eliminate chronic homelessness, use data to enhance coordination among human service agencies, and deliver services that will promote stronger, healthier communities.

What is Pay for Success?

Pay for Success (PFS) offers governments a new way to fund social programs without risking taxpayer dollars if the programs fail to deliver results. Pay for Success projects are public-private partnerships that fund social services through performance-based contracts. Instead of paying for services,

¹ "HUD 2016 Continuum of Care Homeless Assistance Programs Homeless Populations and Subpopulations," https://www.hudexchange.info/resource/reportmanagement/published/CoC_PopSub_State_RI_2016.pdf

² Rhode Island HMIS data analysis, data provided by Rhode Island Coalition for the Homeless

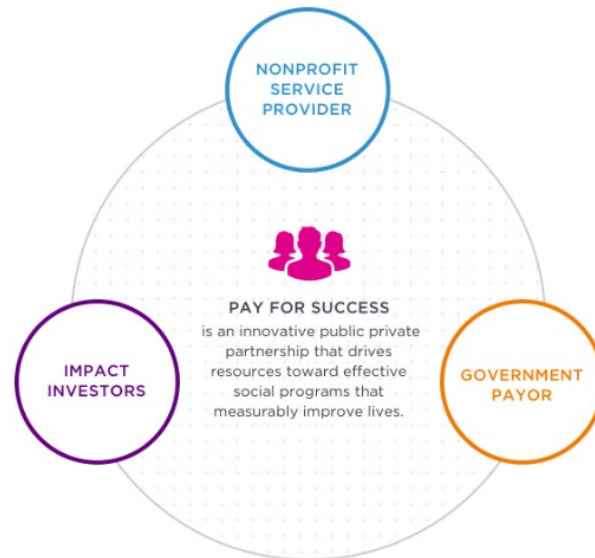
³ Reflects sum of top 150 utilizer costs across HMIS-DOC and HMIS-DOC-OHHS matched populations

⁴ Based on data analysis of top 150 utilizers across HMIS-DOC and HMIS-DOC-OHHS matched populations

governments define the outcomes they are trying to improve—and how those outcomes will be measured—and only pay if they’re achieved. Private funders provide long-term, up-front working capital to nonprofits; the government only repays the upfront investment to the extent that programs achieve pre-determined goals for helping improve people’s lives.

More than ever, governments need to make better use of limited funds to improve the lives of people in need. Pay for Success drives resources toward programs that work—delivering greater community impact and improved accountability.

While Pay for Success can be a useful mechanism for financing social services, many of the tools used to build Pay for Success projects can be helpful more broadly in designing public initiatives. PFS feasibility analyses can be used as a diagnostic to identify challenges for governments, individuals, and communities; to conduct research and analysis on the history and trends of those challenges in the population; and to estimate the cost-benefit of potential evidence-based solutions.

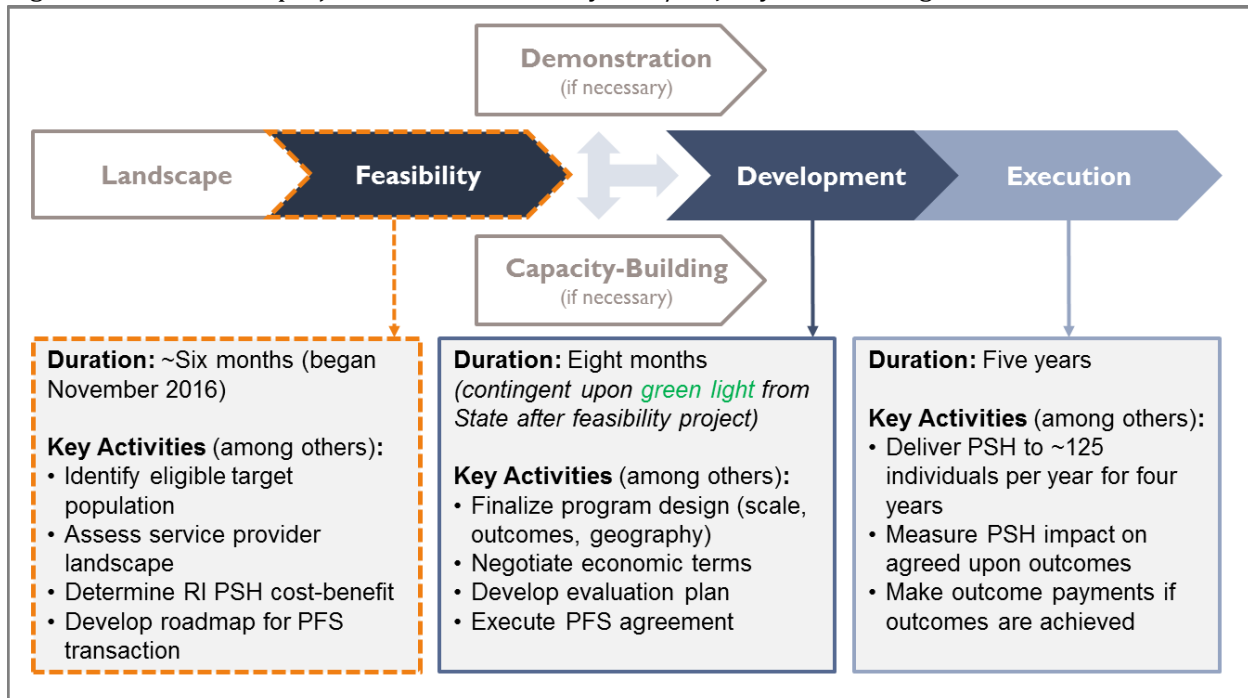


Overview and Objectives

Social Finance and the Coalition were awarded a grant from the US Department of Housing and Urban Development (HUD) and Department of Justice (DOJ) to explore the potential of expanding access to PSH for homeless individuals in Rhode Island through Pay for Success financing. This grant provides resources for three project phases:

- **Feasibility Study** to assess the opportunity of using PFS to expand PSH for homeless individuals in Rhode Island (the focus of this report);
- **Transaction Structuring**—should the State of Rhode Island and project partners determine a PFS project is feasible—to develop and implement a PFS project that will provide ~125 homeless individuals with access to PSH over five years; and
- **Supplemental Outcome Payments**—up to \$1M—for the State of Rhode Island to supplement its outcome payments as part of a Pay for Success project, should the program achieve meaningful outcomes.

Figure 1. Overview of project activities funded by HUD/DOJ Pay for Success grant



This feasibility study, and first phase of this grant, was structured to help the state decide whether to move forward with the next phase of the engagement—structuring a PFS transaction. The feasibility study objectives were:

1. Assess the fiscal and social impact of a PSH Pay for Success project in Rhode Island;
2. Assess the service provision landscape for delivering PSH in a performance-based contract; and
3. Provide a clear recommendation and outline of key considerations to inform the state’s decision on whether or not to transition into transaction structuring.

If the state decides to move forward beyond feasibility, the project partners would structure a PFS transaction to expand access to PSH for vulnerable homeless individuals in Rhode Island. The feasibility study assessed the resources and capacity the state and project partners would need to structure, launch and manage a PFS project.

Methodology

Our work draws from Social Finance’s Pay for Success feasibility assessment framework (see appendix for additional detail on framework). We (i) developed an inventory of subsidized housing and supportive services resources across the state; (ii) interviewed local stakeholders and select service providers to assess key challenges and opportunities for expansion of PSH; (iii) built a cross-matched record of historical state administrative data to refine our understanding of the current costs and demographics of those persistently homeless individuals; (iv) identified appropriate outcome metrics around which to build performance-based contracts for the persistently homeless; (v) conducted a cost-benefit analysis of PSH; and (vi) assessed the feasibility for moving forward with a PFS project.

This work spanned six months. Through the course of this study, we spoke with representatives from a wide variety of local government agencies, providers of homelessness services and housing programs,

and national issue-area experts focused on homelessness, housing policy, government effectiveness, and data access and integration. A full list of these interviews can be found in the appendix. In addition, we established a working group comprised of government stakeholders with experience serving homeless populations in Rhode Island which met bi-weekly. The working group had representatives from the Governor's Office, the Department of Corrections (DOC), the Executive Office of Health and Human Services (EOHHS), Rhode Island Housing, the Office of Housing and Community Development (OHCD), Department of Behavioral Healthcare, Developmental Disabilities, and Hospitals (BHDDH), and the Harvard Kennedy School Government Performance Lab (GPL).

Throughout the feasibility study, bi-weekly working group meetings were structured to answer the following questions:

- **Assess need for PSH among target population.** What are the different sub-groups of the homeless population? What trends are occurring among these populations? What services are currently available and what is the magnitude of unmet need for PSH? What public systems are homeless individuals interacting with most frequently? What funding streams are supporting the existing inventory?
- **Assess Service Providers.** What organizations are currently providing PSH? What is their geographic reach? Are these organizations able to provide additional PSH services if funds are available? What are key constraints to expansion of PSH? What considerations should be addressed to ensure effective implementation?
- **Define Metrics and Analyze Economics.** Which PSH outcomes represent value and benefit to the state? What is the expected level of PSH impact across these outcomes? What is the total value generated by PSH? How does the value generated by PSH compare to the cost of the program for different sub-groups of the homeless population?
- **Identify Operational Considerations.** How can a PFS project best complement existing state initiatives to provide supportive services to homeless populations? How can the project ensure sustainability beyond the PFS project in terms of vouchers and services?
- **Feasibility Study Recommendations.** Should the state move forward with a PFS project to expand PSH? If so, what is the right structure and scale for a project? What are other key considerations for the state's decision? Should the state consider another performance-based structure?

Feasibility Assessment

Rhode Island Housing and Services Landscape

In order to understand and size the unmet need for subsidized housing and supportive services, we worked with agencies that oversee affordable housing and supportive service programs, including RI Housing, OHCD and EOHHS. The output was a consolidated inventory—with each program segmented by housing type, total housing supply, service type, target population, lead administrator, annual funding amount, and utilization levels.

Subsidized Housing Inventory

As of 2016, there are approximately ~21,000 housing units or subsidies across all subsidized housing programs in Rhode Island, with ~2,800 designated for homeless individuals. Across these programs, the four largest sources of funding are the Continuum of Care (CoC), Project-Based Section 8 Contracts, Housing Choice Voucher Program, and OHCD Rental Subsidy Program. See Table 1 for further detail.

Supportive Services Inventory

There are four primary sources of funding for supportive services in the state: the CABHI grant, EOHHS Home Stabilization Program, Continuum of Care, and Medicaid. In particular, the CABHI grant and Home Stabilization Program reflect the state’s commitment to expanding access to supportive services for homeless individuals. BHDDH was awarded the competitive CABHI grant from the Substance Abuse and Mental Health Services Administration (SAMHSA) in October 2015, and EOHHS submitted and was awarded a Medicaid Category II 1115 Waiver to administer the Home Stabilization Program to individuals that are either homeless or on the verge of homelessness in January 2016. Administered by state agencies with distinct, albeit sometimes overlapping, mandates, each of these programs have specified service offerings, certified and approved service providers, and dedicated funding sources and amounts. See Table 1 for further detail.

Summary of Subsidized Housing and Supportive Services Inventory

Table 1 provides a summary of the various funding streams and programs providing subsidized housing and supportive services across the state. (For a complete listing of the inventory, please see separate Excel database.)

Table 1. Summary of Subsidized Housing and Service Inventory

Program	Housing Offerings	Service Offerings	Funding Stream
Continuum of Care (CoC)	<ul style="list-style-type: none"> 2,031 housing subsidies administered via 93 contracts and ~25 providers (~1,540 of which are PSH) 	<ul style="list-style-type: none"> Range of supportive services including assertive community treatment (ACT), critical time intervention (CTI), case management, and other best practices 	<ul style="list-style-type: none"> \$5.3M annual funding from HUD Office of Community Planning
Housing Choice Voucher	<ul style="list-style-type: none"> 1,800 tenant-based housing subsidies Eligibility reserved for low-income 	<ul style="list-style-type: none"> No services provided through program 	<ul style="list-style-type: none"> \$14.1M funding from HUD Administered by RI Housing

Program (HCVP)	population (<50% AMI)		
Section 8 Project-Based	<ul style="list-style-type: none"> 15,783 project-based units available Eligibility reserved for low-income population (<50% AMI) 	<ul style="list-style-type: none"> No services provided through program 	<ul style="list-style-type: none"> \$124.5M funding from HUD Administered by RI Housing
OHCD / HRC Rental Subsidy Program	<ul style="list-style-type: none"> ~200-300 rental assistance subsidies, for up to 24 months (~\$600-700 per person per month) Prioritized for homeless or those at-risk of homelessness 	<ul style="list-style-type: none"> Supportive services available via ~20% of per-person service provider reimbursements Includes housing navigators and home stabilization program (case management) 	<ul style="list-style-type: none"> \$2.3M annual state Consolidated Homeless Fund and Housing Resource Commission funding and \$1.2M federal funding Administered by OHCD
CABHI Grant	<ul style="list-style-type: none"> No housing 	<ul style="list-style-type: none"> Range of supportive services including ACT, CTI, case management, and several other best practices for chronically homeless individuals with co-occurring disorders Riverwood Mental Health Services is the sole grant recipient 	<ul style="list-style-type: none"> Up to \$1.8M per year of funding for 3 years from SAMHSA CABHI reimburses for non-Medicaid billable services
EOHHS Home Stabilization	<ul style="list-style-type: none"> No housing 	<ul style="list-style-type: none"> Home-find and tenancy services for Medicaid-enrolled individuals Provided by EOHHS-certified providers 	<ul style="list-style-type: none"> Medicaid reimbursement of \$145.84 per member per month Administered by EOHHS
Medicaid	<ul style="list-style-type: none"> No housing 	<ul style="list-style-type: none"> General behavioral health and substance use disorder treatment 	<ul style="list-style-type: none"> Unique reimbursement rate for each Medicaid-billable services

This inventory provided context to understand the supply and demand of subsidized housing and supportive services for the working group. In addition, the process of gathering this information generated important learnings about resource allocation, funding flows, and program administration.

In terms of housing resources, all of the 21,000 subsidized housing vouchers are funded by HUD, except for the 200-300 vouchers funded by OHCD, and these HUD-funded vouchers are administered locally by

RI Housing. This indicates that there are very limited state-controlled resources for housing subsidies, limiting potential state resources for a PFS project and beyond the life of the project. In addition, this structure relies heavily on RI Housing’s oversight and coordination, including data on need and utilization, which would be crucial for a PFS project.

In terms of supportive service programs, there is a patchwork of different funding resources, eligibility criteria, and permissible activities, as well as a large number of service providers. A PFS project would have to carefully consider coordination across certified providers during operational planning to ensure PSH participants have access to sufficient supports.

Rhode Island Service Providers

Each of the programs listed in the consolidated inventory are delivered by one of the 25+ service providers in the state. Social Finance assessed the landscape of organizations, challenges and opportunities for service provision, and the potential operational constraints for PFS, by interviewing a selection of five providers.⁵

There were several themes that resonated across the provider conversations and are important considerations for ensuring effective PFS project implementation:

- ***Division of housing and services.*** It is common for providers to focus on delivering one component of PSH, such as housing management services, intensive case management or behavioral health/substance use services, rather than the full suite of services required for PSH. As a result, there are strong referral relationships among providers (i.e. a provider that only offer housing subsidies often works closely with supportive service providers to refer homeless individuals). However given this fragmentation among providers—delivering unique sets of services via multiple funding sources to the same individual— it is difficult to estimate the per person cost of delivering PSH.
- ***Insufficient housing subsidies and vouchers to meet need.*** Service providers uniformly identified access to housing subsidies and vouchers as the primary resource constraint to expanding PSH. In addition, it can be difficult to find units and landlords that will accept the vouchers. Organizations take different approaches to securing units for their clients: some rehabilitate existing units while others work with a network of partner landlords.
- ***Additional capacity is needed for providers to bill Medicaid.*** A number of the larger service providers have become eligible to bill Medicaid, mainly because of the CABHI grant and Home Stabilization Program. However, there are still a number of providers who have not gone through the process of becoming a Medicaid vendor.

Should the project transition from feasibility, there would be additional service provider outreach to further understand and incorporate these learnings into project operation and implementation planning.

⁵ Social Finance conducted introductory interviews with the following Rhode Island service providers: Amos House, Crossroads RI, House of Hope, Providence Center, and Riverwood Mental Health Services. These were selected based on input from the Working Group.

Definition of Target Population

Given state priorities, the HUD/DOJ grant objectives, and our literature review of PSH impact evaluations, early hypotheses suggested that the ideal target population would be **high acuity individuals that are high utilizers of the healthcare, homeless shelter, and criminal justice systems**. These individuals often represent the greatest need, greatest cost to the system, and greatest opportunity for positive impact from PSH. This population—referred to as “high utilizers”—may represent just 5-10% of those experiencing homelessness but drive a greater proportion of the overall costs to the state.

Data integration process

This target population of high utilizers touch many different social services. It can be challenging to broadly understand the needs and utilization of clients across the system, and to identify those with particularly great needs.

Social Finance worked to integrate de-identified service utilization data for individuals across the homeless, criminal justice, and Medicaid systems. This process required significant care to protect individual privacy, while building the rationale for improved services for vulnerable populations.

The base of our dataset included all unique records of individuals with an entry in the Continuum of Care’s (CoC) Homeless Management Information System (HMIS) over calendar years 2015 and 2016. These data include individuals touching emergency shelters and receiving outreach in the street. We then matched these individuals with their records at DOC, including bookings and jail days between January 2010 and December 2016. We then shared two datasets with EOHHS—one with all the individuals with an entry in HMIS and one with all the individuals who matched across HMIS and DOC—and received de-identified data on their Medicaid utilization, but with all identifying information from the HMIS and DOC systems removed. EOHHS data included emergency department visits, inpatient admissions, psychiatric inpatient admissions, and substance use admissions, as well as state nursing home utilization for the top utilizers. EOHHS removed all personally identifiable information before it was shared with Social Finance. Individuals were matched across the HMIS and DOC systems, but, given data sharing restrictions, were not matched with the state Medicaid system. Instead, we received de-identified individual-level healthcare utilization for all individuals in the matched HMIS-DOC system. The following table summarizes the three data sets and overlap of individuals across these systems.

Table 2. Summary of data pull on target population

Agency	Description	Number of individuals
HMIS	Individuals with an HMIS record (as defined by an emergency shelter admission) between January 1, 2015 and December 31, 2016	5,357 unique individuals
DOC (matched with HMIS)	Individuals with an HMIS record in the last 2 years AND a DOC record (awaited trial or sentenced) between 2010 - 2016	1,411 unique individuals
EOHHS Medicaid	a. Individuals with an HMIS record AND a match in the Medicaid system (2015) ⁶	a. 4,516 unique individuals

	b. Individuals with an HMIS record in the last 2 years AND a DOC record (awaited trial or sentenced) between 2010 – 2016 AND a match in the Medicaid system (2015) ⁶	b. 1,261 unique individuals
--	---	-----------------------------

We wanted to understand the target population’s interactions across these systems to understand their baseline utilization without PSH and to identify the sub-population who would most benefit from PSH. Given the data sharing limitations noted above, we focused our analysis on three distinct sub-populations, as follows:

1. **HMIS-DOC Population:** Individuals that overlap between HMIS and DOC (“HMIS-DOC Population”, N=1,411), based on individuals’ utilization of HMIS and DOC
2. **HMIS-EOHHS Population:** Individuals that overlap between HMIS and EOHHS/Medicaid (“HMIS-EOHHS Population”, N=4,516), based on Medicaid utilization for all individuals who had an HMIS ID (but without individual-level HMIS utilization)
3. **HMIS-DOC-EOHHS Population:** Individuals that overlap between HMIS, DOC, and EOHHS/Medicaid (“HMIS-DOC-EOHHS Population”, N=1,261), based on Medicaid utilization for individuals who had a match in DOC and HMIS (but without individual-level HMIS or DOC utilization)

HMIS-DOC Population

Of the 1,411 individuals that touched the HMIS and DOC systems, 81% are male, 32% are chronically homeless, and their average age is 41. Among these individuals, there is significant variation in shelter and criminal justice annual costs; the top 10% of utilizers incur close to 30% of the total cost to these systems from this population.

As described in Table 3 below, these 1,411 individuals have on average (over the past 7 years) spent 91 total days in the shelter system, 68 days awaiting trial, and 288 days serving a sentence, resulting in an average annual cost per individual to HMIS and DOC of ~\$5,000.

Table 3. Summary of length of stay and costs across the HMIS-DOC Population, N=1,411⁷

	HMIS / Shelter System	DOC Awaiting Trial	DOC Sentencing
Average cumulative length of stay (2010-16)	91 days	68 days	288 days
Average annual cost per person	\$2,111	\$598	\$2,099

In contrast, Table 4 shows that the top 150 utilizers within this data set have spent 117 days in the shelter system, 1,628 days in the criminal justice system, and have cost the two systems a total of \$13,239 per year.

⁶ Social Finance decided to use 2015 numbers to ensure adequate inclusion of all claims, given hospital lag in submitting claims data.

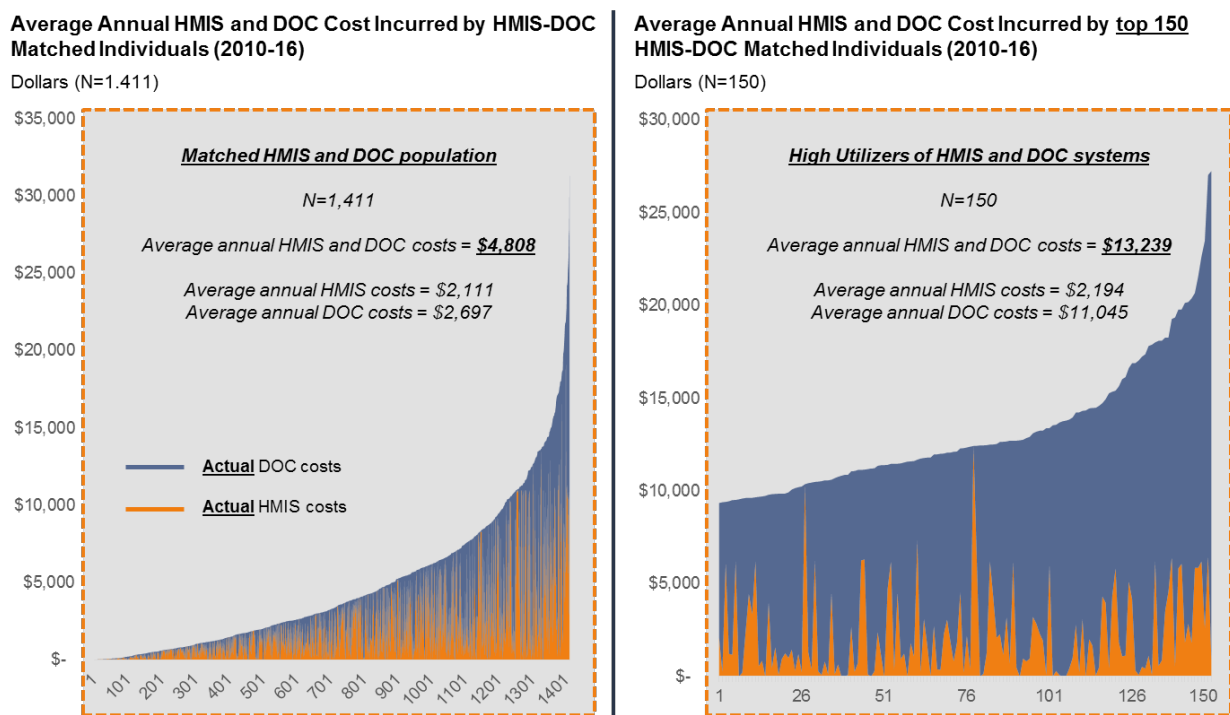
⁷ Based on HMIS and OHCD shelter per diem rate estimates of \$17, based on the FY16 OHCD emergency shelter line item funding (\$1.54M) and the total number of FY16 shelter nights (92,848). DOC provided an estimate of offender per diem rate of \$38.15 based on annual variable costs of \$5,020 per offender and averted staffing costs of \$1,247.28 assuming a closing of a 24-bed module via a PSH intervention.

Table 4. Summary of length of stay and costs across **top 150** HMIS-DOC utilizers

	HMIS / Shelter System	DOC Awaiting Trial	DOC Sentencing
Average cumulative length of stay (2010-16)	117 days	210 days	1,418 days
Average annual cost per person	\$2,194	\$1,696	\$9,349

Figure 2 illustrates the utilization of individuals across these two systems, with a detailed view of the utilization of the top 150 utilizers of the systems. The top 150 HMIS-DOC utilizers incur disproportionately greater costs than the broader HMIS-DOC population, mainly driven by their significantly longer DOC sentences (288 days for the HMIS-DOC population versus 1,418 days for the top 150 HMIS-DOC utilizers). While the high utilizers across these systems incur similar costs to the shelter system, they incur more than four times the cost of the average utilizer to DOC.

Figure 2. Summary of costs across entire HMIS-DOC Population and top 150 HMIS-DOC utilizers



Given that the highest utilizers incur a disproportionately greater share of the total system costs than the average individual, a PFS project should focus on the individuals that are the highest-utilizers of these systems. In particular, since the majority of costs incurred by the top 150 HMIS-DOC utilizers is driven by criminal justice interactions, the target population would include individuals with high DOC involvement, measured by multiple DOC interactions or long, cumulative sentences.

HMIS-EOHHS Population

Of the 5,357 individuals with a HMIS match, 4,516 (~85%) also had a Medicaid system match. The majority of Medicaid utilization, based on the top 25 utilizers, is based on state nursing home, general inpatient and psychiatric inpatient stays, and emergency department visits. In our analysis, we focus on

the Medicaid utilization from 2015 given that there is a time-lag in data entry for 2016 which explains the lower Medicaid costs for 2016.

Table 5. Summary of Medicaid costs of HMIS-OHHS Population (2015-16)

	2015	2016
Total population (N)	5,357 individuals (HMIS)	
Number of Medicaid matches	4,516 (85%)	4,602 (85%)
Total Medicaid costs	\$12,182,596	\$8,791,212
Average annual cost (all)	\$2,698	\$1,910
Average annual cost (>\$0) ⁸	\$5,698	\$4,881

Of the 4,516 individuals with a match in the Medicaid system, 2,138 individuals incurred a total of ~\$12 million in Medicaid costs, with an average of \$5,698 per individual (the other individuals didn't incur any Medicaid costs in 2015). Looking at the top 150 Medicaid utilizers, this average annual utilization increases significantly, to \$42,710 per individual. Narrowing the population further increases the average—the top 100 Medicaid utilizers averaged \$56,502 per person per year, and the top 50 individuals averaged \$87,163 per person per year in 2015.

Figure 3. Summary of Medicaid costs across entire HMIS-OHHS Population and top 150 utilizers

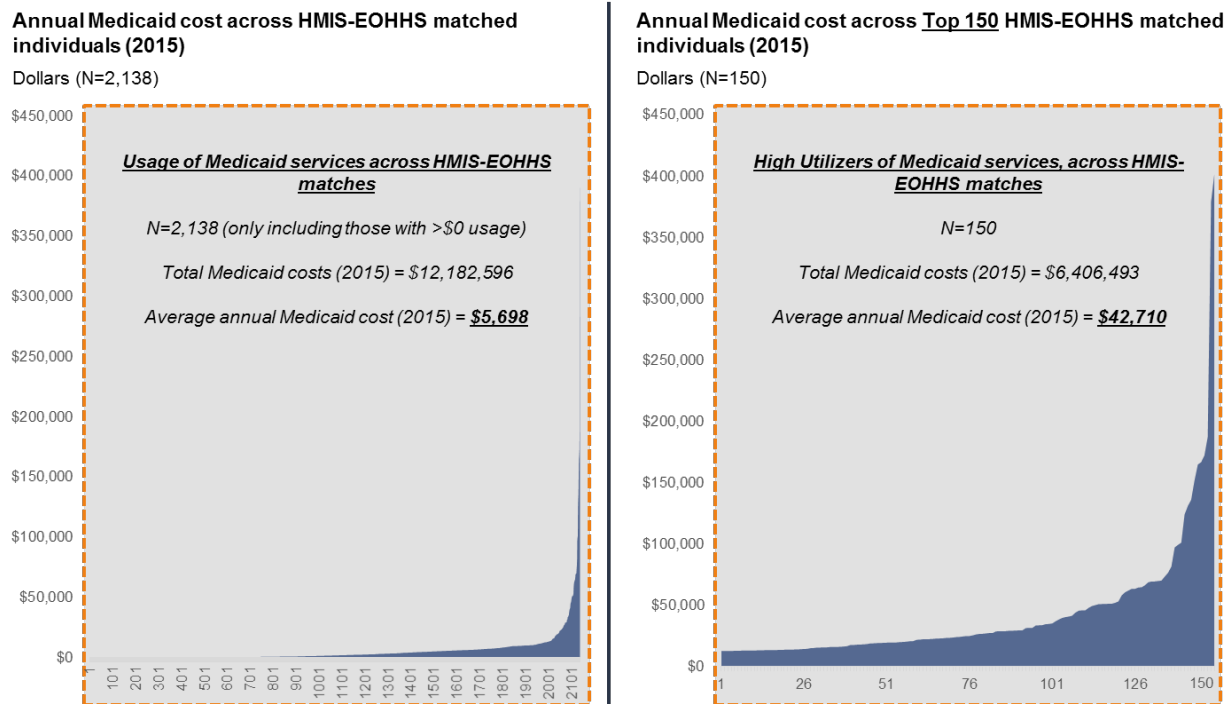


Figure 3 indicates that the high utilizers of the Medicaid system drive a disproportionate percentage of the costs to the system. While similar to the trend seen with the HMIS-DOC population, it is even more dramatic for the Medicaid systems—suggesting that a PFS project should focus on the higher utilizers of the Medicaid system in order to generate the greatest benefit for the state. In addition, the driver of

⁸ Only includes individuals with >\$0 in Medicaid utilization in the corresponding claim year.

Medicaid costs—state nursing home placements, general inpatient and psychiatric inpatient stays, and emergency department visits—are high-cost services that would likely be positively impacted by PSH.

HMIS-DOC-EOHHS Population

Our data request identified the population that matched with all three systems—individuals with a shelter stay, a DOC interaction, and a Medicaid match. Of the 1,411 individuals with a HMIS-DOC match, 1,261 of them (~90%) had a Medicaid system match, suggesting near universal Medicaid enrollment for this population.

Of the total HMIS-DOC-EOHHS population, 732 individuals incurred a total of ~\$6 million in Medicaid costs, with an average of \$8,188 per individual. Looking at the top 150 Medicaid utilizers from this population, the average annual utilization increases significantly, to \$30,920 per individual. Narrowing the population further increases the average—the top 100 Medicaid utilizers averaged \$42,037 per person per year, and the top 50 Medicaid utilizers averaged \$71,745 per person in 2015. The top 30% of Medicaid utilizers within this population used 85% of the total Medicaid utilization for the population.

Recommendations on PFS Target Population

Our analysis found that there are subsets of the homeless population that incur a disproportionate amount of state resources across the HMIS, DOC and Medicaid systems. A PFS project would target these high utilizers, especially individuals with significant DOC involvement and Medicaid healthcare utilization.

During transaction structuring, project partners will define project eligibility criteria that will identify individuals who are likely to incur the greatest costs to the systems and are the best fit for PSH.

Project eligibility criteria eligibility should be finalized during transaction structuring, and may include the following:

- ***Emergency shelter interaction***, such as a threshold shelter length of stay or service utilization that indicates immediate need for housing supports
- ***High homelessness acuity***, as indicated by a chronic homelessness designation, a high VI-SPDAT, or a long history of homelessness
- ***Current housing and supportive service access*** should be identified within the HMIS system to eliminate individuals that are currently receiving or recently received PSH or a similar array of services.
- ***Criminal justice involvement***, including individuals with frequent, short-term DOC admissions or a recent DOC release without an identified home address or high Level of Service Inventory-Revised (LSI-R) score⁹
- ***Utilization of specific healthcare services***, including extended psychiatric inpatient or state nursing home stays, or multiple emergency room / EMS interactions over a pre-determined time period, would indicate a good fit for PSH and high potential for positive impact.

⁹ LSI-R is a validated risk/need assessment tool used by the RI DOC which identifies problem areas in an offender's life and predicts his/her risk of recidivism. It is a 54-item instrument which assesses offenders across 10 domains known to be related to an offender's likelihood of returning to prison. This assessment includes a series of questions related to housing and accommodation status. "LSI-R Overview," Rhode Island Department of Corrections, April 2011, <http://www.doc.ri.gov/administration/planning/docs/LSINewsletterFINAL.pdf>

These potential eligibility criteria should be incorporated into existing identification and referral processes. For example, the Coalition currently manages a by-name list of chronically homeless individuals—a PFS project should integrate any project eligibility criteria into such a platform to ensure seamless implementation and sustainability beyond project duration. Related eligibility and operational considerations are discussed in greater detail in the Next Steps section of the report.

Selection of PSH Outcomes

Definition and Core Components of Permanent Supportive Housing

As described by SAMHSA, PSH is an evidence-based approach to tackling chronic homelessness through a combination of long-term, affordable housing and wraparound services. Beneficiaries of PSH have access to ongoing case management services that are designed to preserve tenancy and address their current needs, including substance use disorder treatment, mental health counseling, and employment or education services.

While there are variations of the PSH model, key elements include:

- The provision of affordable, safe housing which expects the participant to contribute no more than 30% of their income to housing costs;
- Linkages to wraparound services targeting mental illness, substance use disorder, physical health and employment readiness;
- A housing first approach with no pre-requisites for housing, and offering a flexible, comprehensive, and optional array of supportive services (participation in services is not a condition of tenancy);
- The preservation of the tenant’s ability to have a choice of decent and safe housing, with no limits on length of tenancy as long as lease terms and conditions are met; and
- Coordination with local community partners and resources that help the individual(s) continue to address their challenges and promote housing stability.

In three of the four jurisdictions that have launched Pay for Success projects focused on homelessness—Massachusetts, Santa Clara County, and Denver—PSH has been selected to serve beneficiaries. (See the appendix for a summary of the four PFS projects focused on homelessness.)

Assessment and Selection of PSH Outcomes

In dozens of studies across the country over the last 15 years, the PSH model has been subject to evaluation through rigorous randomized controlled trials (RCT) and quasi-experimental evaluations, and has demonstrated positive effects on housing stability, emergency healthcare utilization, and criminal justice interaction.¹⁰ As we evaluate the potential for a PFS project to serve homeless individuals in Rhode Island, a crucial area of alignment is the selection of outcome metrics by which to measure project success.

Social Finance examines the following key considerations in order to assess and select which outcomes to prioritize in a Pay for Success project:

- **Evidence-base.** Is the outcome backed by rigorous research?
- **Beneficiary alignment.** Does the outcome generate meaningful improvement in the lives of the individuals being served?

¹⁰ See literature review in the appendix, and <http://ps.psychiatryonline.org/doi/full/10.1176/appi.ps.201300261>

- **Program alignment.** Does the outcome align with the expected impact and theory of change of the intervention and/or service provider?
- **Measurable.** Can the outcome be regularly assessed based on reliable and accessible data?
- **Observable.** Can the outcome be observed and measured within a reasonable timeframe?
- **Value-creating.** Does the outcome generate social and financial benefits to a government entity and to the community?
- **Policy alignment.** Does the outcome align with the state’s policy priorities?

In assessing the evidence base of each outcome, we examine the strength of the evidence quality, relevance, and magnitude of impact.

- **Evidence quality.** Has the outcome been subject to rigorous evaluation (i.e. experimental or quasi-experimental design)?
- **Evidence relevance.** Has the outcome been measured for a similar, and directly relevant, target population?
- **Evidence impact and effect size magnitude.** What is the expected magnitude of impact and is this meaningful for the target population?

In our literature review, we found that PSH has a consistent, positive impact across housing outcomes, particularly housing stability. There is also a moderate evidence base suggesting PSH’s potential to positively impact health and criminal justice outcomes. The variations in Permanent Supportive Housing, however, make it a somewhat challenging model to predict. As such, we reviewed specific, codified versions of PSH. Among the strongest of these interventions was the combination of permanent housing with Assertive Community Treatment (ACT). For a detailed summary of our literature review, please see Exhibits 3-5 in the appendix.

Table 6. Summary of evidence base for PSH Outcomes¹¹

Outcome Type	Strength of Evidence Base	Outcome Effect Size Ranges
Housing	<ul style="list-style-type: none"> • Strong evidence base: 7+ RCTs demonstrating positive outcomes 	<ul style="list-style-type: none"> • ~70-86% reduction in shelter days • ~25-50% reduction in days homeless
Health	<ul style="list-style-type: none"> • Moderate evidence base: 2 RCTs and several matched comparison studies 	<ul style="list-style-type: none"> • ~33% reduction in ER visits • ~23% reduction in hospital days • ~12-55% reduction in psychiatric hospital days
Criminal Justice	<ul style="list-style-type: none"> • Moderate evidence base: 2 RCTs and several matched comparison studies 	<ul style="list-style-type: none"> • ~43% reduction in reconvictions • ~40-56% reduction in incarcerated (jail or prison) days

Recommendation on Selection of PSH Outcomes

Social Finance recommends the following outcomes for a PFS project in RI: 1) housing stability, 2) reduced prison or jail days, and 3) reduced inpatient utilization. These outcomes are strong candidates for a PFS project for the following reasons:

¹¹ See evidence tables in appendix for supporting research and literature review

- **Strongest evidence of PSH impact.** Across the evaluations of PSH, housing stability—as measured by reduction in shelter days and days homeless—is the most consistently demonstrated outcome. In addition, there is support for strong impact on reducing psychiatric hospital days and incarcerated (jail or prison) days. Several RCTs and matched control group studies have demonstrated positive outcomes across these metrics, as illustrated in the table above.
- **Alignment with RI policy objectives.** Together, these outcomes represent meaningful fiscal benefit to the state; individually, each outcome addresses specific policy priorities. The housing stability outcome aligns with the state’s commitment to end chronic homeless. A healthcare utilization outcome allows the state to track the impact of targeted healthcare service provision to the highest Medicaid utilizers and to measure the impact of housing as a social determinant of health. A criminal justice outcome will align with the state’s effort to reduce recidivism and offer evidence-based services to reentry populations. In addition, a blend of housing, health and criminal justice outcomes align with the HUD/DOJ objectives for the grant and resulting PFS projects.¹²
- **Meaningful impact on target population.** Based on our analysis of the target population, there is significant utilization among potential PSH recipients of homelessness services, emergency healthcare, and the criminal justice system. Incorporating a blend of outcomes will reflect the target population’s extensive service utilization at baseline across multiple agencies.
- **Precedents in the PFS field.** Each of the four existing PFS projects which target homelessness by expanding PSH—in Massachusetts, Santa Clara County, Denver, and Salt Lake City¹³—use a sub-selection of these outcomes. The Massachusetts, Santa Clara County and Denver projects base repayments on a housing stability outcome (measured by months of continuous, stable tenancy). In addition, the Denver and Salt Lake City projects use a reduction in jail bed days as a secondary outcome.¹⁴

Cost-Benefit Analysis

A cost-benefit exercise identifies the potential value of a program relative to status quo costs incurred by potential program beneficiaries. It is intended to help assess sub-populations that drive a disproportionate amount of public costs, identify potential fiscal and social value relative to the cost of the intervention, and inform the potential scale of the PFS project. It is **not** intended to bind any RI agency to actual savings, obligate agencies or departments to contribute funds, or otherwise act as final terms for a PFS project.

¹² Per the HUD/DOJ Cooperative Agreement, HUD identifies the reentry population as a projected PSH target population. HUD has review and approval rights of the PFS project evaluation plan.

¹³ In 2014, Massachusetts State launched a project to serve up to 800 chronically homeless individuals with a Permanent Supportive Housing (PSH) intervention for 5 years, raising \$3.5M from private investors. In 2015, Santa Clara County launched a similar project to serve 150-200 chronically homeless individuals with PSH and Assertive Community Treatment (ACT) for 6 years, raising \$6.8M in private capital. In February 2016, Denver followed suit and is currently delivering a PSH intervention to 250 chronically homeless individuals for 5 years, raising \$8.7M to do so. And more recently in December 2016, Salt Lake City launched a \$5.7M PFS project to serve persistently homeless individuals with a Rapid Re-Housing approach for 6 years.

¹⁴ “Denver Social Impact Bond Project,” *Urban Institute*, <http://pfs.urban.org/pfs-project-fact-sheets/content/denver-social-impact-bond-program>

In order to determine which individuals would be a strong fit for PSH, we examined the cost of the intervention relative to the expected impact and cost savings of the intervention. There are three main inputs to assessing the cost-benefit of Permanent Supportive Housing:

1. **Baseline costs.** In the absence of PSH, what are the average annual costs to the shelter, criminal justice and healthcare systems for different segments of the RI homeless population?
2. **Expected benefit.** Given the evidence base surrounding PSH, what is the magnitude of impact PSH is expected to have on outcomes associated with each of these public systems? When applying the expected PSH impact to the baseline annual shelter, criminal justice, and healthcare costs, what is the expected annual benefit to these systems?
3. **Delivery costs.** Based on available sources, what is the average annual cost of providing PSH?

Baseline costs

As described in the section on the *Definition of the Target Population*, we were able to assess the baseline costs of individuals to the HMIS, DOC and EOHHS systems.¹⁵ Across the top 150 utilizers of HMIS and DOC services, the average individual incurs \$2,194 in annual HMIS costs and \$11,045 in annual DOC costs, for a total of \$13,239 in annual costs to both systems. Across the top 150 utilizers of EOHHS services, the average individual incurs \$42,710 in annual Medicaid costs. We cannot add these total system costs directly since it could be different individuals incurring the greatest costs from HMIS and DOC, and from EOHHS, so we have treated these baseline costs in two categories: HMIS/DOC costs, and EOHHS costs.

In addition, there are baseline costs missing from this analysis. This analysis does not include the full impact of correctional health costs; while DOC captures average health costs for the prison population, we would expect that high utilizers would drive higher-than-average healthcare costs while incarcerated. This does not include the economic impact of homelessness—for local businesses or for the homeless individuals themselves—or the cost to society of various criminal acts, including “tangible” costs (e.g., direct economic losses, property damage) and “intangible” costs (e.g., productivity loss, victimization costs, and quality of life).

Expected benefit

The expected benefit calculation of this analysis works from the baseline costs outlined above, and applies an effect size extracted from the intervention literature. Based on our literature review, we have used conservative estimates of effect sizes found in the PSH evidence base. PSH is expected to reduce shelter days by 70%, DOC days by 40%, and Medicaid costs by 27%. Additional detail is provided in the tables below.

The expected PSH benefit generated by the intervention is calculated by multiplying the individual baseline annual cost numbers by the expected PSH impact for each of the three outcomes.

¹⁵ Based on constraints in the data matching process, we are currently unable to tie individuals’ Medicaid utilization to their exact HMIS and DOC utilization. Thus, we have examined the HMIS-DOC costs and the EOHHS/Medicaid costs in isolation. Should we transition to transaction structuring, we would seek opportunities to match individuals across all three data sets so we can more accurately identify the individuals for whom PSH is most beneficial.

Table 7. Projecting PSH impact onto baseline annual costs to determine expected annual PSH benefit for **top 150 utilizers** from the **HMIS-DOC** population (*illustrated using average annual utilization*)

Agency	Illustrative Individual Baseline Annual Cost	×	Expected PSH Impact	=	Expected PSH Benefit (Cost Savings)
HMIS / OHCD	\$2,194		70% reduction in HMIS shelter days ¹⁶		\$1,536
DOC	\$11,045		40% reduction in DOC incarcerated days ¹⁷		\$4,418

Table 8. Projecting PSH impact onto baseline annual costs to determine expected annual PSH benefit for **top 150 utilizers** from the **HMIS-EOHHS** population (*illustrated using average annual utilization*)

Agency	Illustrative Individual Baseline Annual Costs	×	Expected PSH Impact	=	Expected PSH Benefit (Cost Savings)
EOHHS Medicaid	\$42,710		27% reduction in ER visits, hospital days, and inpatient psych. hospital utilization ¹⁸		\$10,724

Focusing on the top utilizers across each population—HMIS-DOC population and HMIS-EOHHS population—will direct services to the individuals who incur the greatest costs to the criminal justice, healthcare and shelter systems, and thus generate the greatest potential benefit. With that said, narrowing the band of observation—from the top 150 utilizers to the top 125 utilizers, for example—increases the average per person expected PSH benefits across both the HMIS-DOC and HMIS-EOHHS populations.

Table 9. Average baseline Medicaid utilization and expected PSH savings for high utilizers

	Average Baseline Medicaid Utilization	Average Expected PSH Medicaid Savings
Top 150 Utilizers	\$42,710	\$10,724
Top 125 Utilizers	\$48,584	\$12,199
Top 100 Utilizers	\$56,502	\$14,188
Top 75 Utilizers	\$67,978	\$17,069

Table 10. Average baseline shelter and DOC utilization and expected PSH savings for high utilizers

	Average Baseline Shelter and DOC Utilization	Average Expected PSH Shelter and DOC Savings
Top 150 Utilizers	\$13,239	\$5,954
Top 125 Utilizers	\$13,943	\$6,253
Top 100 Utilizers	\$14,719	\$6,596
Top 75 Utilizers	\$15,693	\$7,016

¹⁶ See Table 6. Based on PSH reduction in shelter days of 70-86%, using lower range estimate of 70%.

¹⁷ See Table 6. Based on PSH reduction in incarcerated (prison or jail) days of 40-56%, using lower range estimate of 40%.

¹⁸ Based on weighted average effect size applied to portion of relevant Medicaid costs (out of 100%, to aggregate PSH impact across three service types). Relevant Medicaid costs are those healthcare costs that we expect to be positively impacted by PSH and are based on actual FY15 Medicaid costs of the HMIS-DOC-EOHHS population (64% of costs attributed to psychiatric inpatient days, 20% to ER/ED visits, and 9% to inpatient hospital days).

PSH is likely to generate significant benefits, then, for the state and these three agencies when delivered to high-utilizing homeless individuals. There are significant benefits beyond those shown here: to systems not currently included in this analysis (e.g., policing and patrol, probation, and others), benefits that accrue to local and Federal governments or to private stakeholders, and other social benefits to individuals and the wider community.

Delivery costs

The previous sections analyzed historical baseline costs and estimated the impact and benefits of scaling a PSH program targeted to high-utilizing homeless individuals. Against these benefits, we need to compare the costs of extending the intervention. Based on a set of historical studies and benchmarks, along with conversations with Rhode Island stakeholders, we estimate the average annual cost of providing both housing and intensive supports to be ~\$15,000 - \$20,000 per individual.

Understanding total cost is only a part of the analysis. The true costs borne by the state depend on a number of other funding streams—in particular, access to vouchers through the Housing Choice Voucher Program and OHCD, provider ability to bill Medicaid for services, and support from funding programs such as the CABHI grant and Home Stabilization.

For the purposes of our core analysis, we assumed that a 125-person intervention would have access to 50 vouchers (provided by HCVP or OHCD); and that 70% of supportive housing services costs will be covered via reimbursements through existing funding sources for service providers. PFS financing would cover the cost of the remaining 30% of supportive housing services costs and the full cost of housing for the remaining 75 individuals.

Under these assumptions, the annual project budget would ~\$2.6M—of which 52% would be funded by a PFS project and the remaining 48% would be funded via existing state resources. As such, the state would be responsible for ~\$10,500 per person served per year in supportive service and housing subsidy/voucher costs. The annual project budget includes the cost of services as well as project-related costs for PFS project management, legal fees, evaluation, and project administration. A preliminary and illustrative project budget is included in the appendix.

Cost-Benefit Analysis

Based on the costs and benefits outlined above, we would expect expanding an intensive PSH intervention targeted towards Rhode Island's highest-utilizing homeless individuals to create greater value than its cost. For a program targeting 125 highest-utilizers, the cost-benefit of PSH would be positive, given the per person program cost of ~\$10,500 to the state and average per person benefits across HMIS, DOC and EOHHS of \$15,000-\$20,000. A more detailed analysis of the return on investment would require data on the baseline costs of the highest-utilizing individuals across HMIS, DOC and EOHHS rather than our current understanding of the highest utilizers to HMIS-DOC and the highest utilizers to HMIS-EOHHS.

This cost-benefit analysis varies based on different assumptions, in particular around the effect size of PSH, the narrowing of the target population around the highest-utilizers, and the variations in the level of federal and state support for PSH.

Recommendations on Cost-Benefit Analysis for PSH

Our analysis of the HMIS, DOC and Medicaid administrative data demonstrates that PSH—when delivered to the most vulnerable homeless individuals—generates significant benefits for Rhode Island shelter, criminal justice, and healthcare systems. The cost-benefit is most positive for the highest utilizers of the DOC and Medicaid systems.

In continuing to refine our cost-benefit findings to inform transaction structuring for a PFS project, there are several key considerations for next steps:

- **Integrating Data Sets.** The state should seek opportunities to match individuals across Medicaid, DOC and HMIS systems since we were only able to match individuals across DOC and HMIS. This data integration will allow for a consolidated cost-benefit exercise—in comparison to our approach that compares the HMIS-DOC and HMIS-EOHHS population separately—to offer a more granular perspective on the Rhode Island homeless population and individual-level baseline costs. Adjusting these figures has a significant impact on the cost-benefit findings and the scale of the homeless population for which PSH is cost-beneficial. The Rhode Island Innovative Policy Lab (RIIPL) has aggregated administrative data across the state, including HMIS, DOC and EOHHS, and the state should leverage RIIPL’s work in transaction structuring.

A process that integrates data sets could also be used to identify potential project participants; the following process would allow for targeted outreach to the highest utilizers of the healthcare, shelter, and criminal justice systems:

1. Each quarter, a HMIS data (HMIS dataset) pull identifies all individuals with a shelter admission over the past three months
 2. The HMIS dataset is shared with DOC (HMIS-DOC Dataset); criminal justice interaction data is combined into the dataset for any individual with a DOC match over the past two years
 3. The HMIS dataset is shared with EOHHS (HMIS-EOHHS Dataset); healthcare utilization data (over a pre-determined observation period) is combined into the dataset for any individual with a Medicaid match
 4. The HMIS-DOC and HMIS-EOHHS Datasets are merged on an individual-level basis using a unique identifier (Aggregate Costs Dataset).
 5. Individuals in the Aggregate Costs Dataset are sorted by total costs incurred across all three systems, and individuals that are currently receiving PSH are removed from the dataset.
 6. Project partners use the Aggregate Costs Dataset to identify and conduct targeted outreach to the highest utilizers
- **Cost-Benefit Inputs.** Several of the CBA inputs—namely the DOC per diem of \$38.15 and the shelter per diem of \$17—are conservative relative to other PFS projects providing PSH to high utilizers. Working group members agreed that these figures were sufficient for the purposes on the feasibility study, but these inputs should be further refined in the next project phase.
 - **Defining “High Utilizers”.** As shown in Tables 9 and 10, the expected per-person PSH benefits change significantly as you adjust the size of the “high utilizer” population. Defining the “high utilizer” population, and the appropriate project scale more broadly, is a key consideration that is discussed further in the Next Steps section.

- **Broadening the definition of the value generated by PSH.** This cost-benefit exercise focused on the savings generated by PSH for HMIS, DOC and Medicaid. However, there are significant other benefits for individuals and systems from expanding PSH that were not included here, such as improving employment outcomes for recipients, improving public safety for the community, and reducing healthcare costs for high utilizers at DOC. Moving forward, it may be useful to broaden the cost-benefit analysis to include additional areas of value generated by PSH.

Investor landscape

If the state decides to move forward with a Pay for Success project, we believe there are a diverse set of national and local funders that may be interested in considering this project.

Pay for Success projects have attracted a variety of investors and investor types, from national financial institutions to local philanthropies. The table below summarizes the funders for the existing PFS projects in the PSH space.

Table 11. Funders of PSH Pay for Success programs nationwide

Project Name	Senior Funders	Junior Funders
Massachusetts Chronic Homelessness Pay for Success Initiative	<i>Santander Bank, United Way of Massachusetts Bay and Merrimack Valley, Corporation for Supportive Housing</i>	<i>None</i>
Project Welcome Home (Santa Clara, CA)	<i>The Reinvestment Fund, Corporation for Supportive Housing</i>	<i>The Sobrato Family Foundation, The California Endowment, The Health Trust, The James Irvine Foundation</i>
Housing to Health Initiative (Denver, CO)	<i>Northern Trust, Walton Family Foundation, Piton Foundation¹⁹ Nonprofit Finance Fund, Laura and John Arnold Foundation, Walton Family Foundation, Living Cities, Colorado Health Foundation, Denver Foundation²⁰</i>	

In addition, local foundations and organizations have indicated initial interest in this project, including the Rhode Island Foundation, United Way of Rhode Island, and Local Initiatives Support Corporation (LISC).

¹⁹ This funder group is repaid based on the project’s performance across the housing stability metric.

²⁰ This funder group is repaid based on the project’s performance across the jail bed day metric.

Recommendations and Next Steps

Over the six month feasibility study, Social Finance and the Coalition worked with Rhode Island government partners to assess the potential to use PFS financing to expand PSH to improve outcomes for the vulnerable homeless population. Our recommendations include considerations for designing a PFS project; assessing project scale and required state resources; and operationalizing a PFS project. Finally, we conclude with an overall recommendation on whether the state should move beyond feasibility into developing a PFS project. All of the recommendations would be reviewed and refined during transaction structuring.

Project Design Considerations and Recommendations

Our analysis covered key considerations for PFS project design, including the target population, outcomes selection, and cost-benefit analysis.

Target Population and Eligibility Criteria. Project eligibility criteria should be designed in order to ensure that project participants are a good fit for PSH and are the highest utilizers of state resources, including:

- **Emergency shelter interaction**, such as a threshold shelter length of stay or service utilization that indicates immediate need for housing supports;
- **High homelessness acuity**, as indicated by a chronic homelessness designation, a high VI-SPDAT, or a long history of homelessness;
- **Current housing and supportive service access** should be identified within the HMIS system to exclude individuals that are currently receiving or recently received PSH or a similar array of services;
- **Criminal justice involvement**, including individuals with frequent, short-term DOC admissions or a recent DOC release without an identified home address or high Level of Service Inventory-Revised score; and
- **Utilization of specific healthcare services**, including extended psychiatric inpatient or state nursing home stays, or multiple emergency room / EMS interactions over a pre-determined time period.

Final eligibility criteria should incorporate any additional HUD/DOJ requirements in terms of level of criminal justice and homeless system interaction; our analysis indicates that it would be feasible for the state to accommodate these federal requirements in a PFS project.

Outcomes Selection. A PFS project should identify outcomes that align with state policy objectives, represent fiscal and social value for the state, achieve meaningful benefit for the target population, and are supported by the PSH evidence base. Subsequently, we recommend the following project outcomes:

1. **Housing stability**, as measured by reduced number of days in the shelter system or number of consecutive days in PSH placement;
2. **Criminal justice system interaction**, as measured by reduced number of Department of Corrections admitted or awaiting trial prison days; and
3. **Inpatient healthcare utilization**, as measured by reduced number of days in inpatient or nursing home facilities.

Cost-Benefit Analysis. We conducted a cost-benefit analysis to understand the potential fiscal and social benefits of expanding PSH for the state. Our analysis indicated a PSH project would be cost-beneficial for the state. This is dependent on being able to identify and serve the highest utilizers; to deliver PSH with high quality and to achieve the expected outcomes; and to access data on the target population's service utilization, costs and outcomes throughout the project. In addition, there are specific inputs to our analysis that would require further refinement in order to finalize the project scale for a PFS project:

- **Integrate administrative data sets**, to match individuals across Medicaid, DOC and HMIS systems to allow for a consolidated cost-benefit exercise, provide a more granular understanding of individual-level baseline costs, and develop a template for a quarterly high utilizers dataset to inform project referrals. The state should explore the potential to leverage RIPL's existing work in matching data across agencies.
- **Refine baseline cost inputs**—namely the DOC per diem of \$38.15 and the shelter per diem of \$17—to ensure they reflect realistic costs to the system. These are significantly below the costs estimated by other PFS projects providing PSH to high utilizers. In addition, there are baseline costs that are not included and should be considered, such as economic costs of homelessness, victimization and public safety costs, and correctional health costs.
- **Broaden the definition of the value generated by PSH** beyond the savings generated to HMIS, DOC and Medicaid to include the other benefits created for individuals and systems, such as improving employment outcomes, improving public safety, and reducing healthcare costs for DOC.

Project Scale and State Resources Considerations and Recommendations

The project design and cost-benefit analysis are directly informed by the number of people served by a project. Our recommendation is that the project serve 125 high utilizers of services, with the PFS project covering the cost of housing for 75 individuals and ~30% of the cost of services. This would result in a total project budget of ~\$13.2M, with ~\$6.6M covered by PFS financing. In developing a recommendation on project scale, we took into account the following considerations:

- **Per-participant cost-benefit analysis** will be impacted by the number of individuals served. A narrower project serving the highest utilizers will generate a stronger per-participant cost-benefit and will result in serving fewer, higher-need individuals. However, the fixed costs of the PFS project—including performance management, legal, and evaluation costs—will be a larger percentage of the project budget.
- **Leveraging available state resources** for vouchers and housing services will reduce the size of the PFS project budget and impact sustainability considerations. Given the potentially long-term nature of a PSH intervention, it is important to ensure continuity of services beyond the PFS project which can be facilitated by funding housing vouchers through existing funding streams rather than through PFS financing. This must be balanced with the HUD/DOJ grant requirement that no less than 50% of the total project budget is funded by PFS financing, rather than by existing funding streams.
- **Leveraging available federal resources**—If the state decides to pursue a PFS project, \$1M in supplemental outcome payments will be available from the HUD/DOJ grant. This will significantly discount the outcome payments made by the state.

Before formally moving into transaction structuring, the state should consider its ability to commit state resources. This includes dedicating existing funding streams to PSH, including 50 housing vouchers and Medicaid reimbursement for ~70% of the cost of supportive services. In addition, the state needs to

define a mechanism to make outcome payments, such as a trust fund, and the source of outcome payments.

Operational Considerations and Recommendations

The success of a PFS project hinges on high-quality service provision and operations. PSH is a multi-component, multi-stakeholder intervention and its success relies on significant coordination across sectors, providers, and agencies. Operational considerations include:

Accessing housing units. Successful implementation depends on securing priority access for clients to permanent housing units or subsidies in either a single or scattered-site administration approach. Rhode Island is expecting to pursue a scattered-site approach and several providers cited the identification of landlords and units as a barrier to scale. An operational plan to scale PSH through PFS should develop specific plans to leverage existing housing units or identify units in the development pipeline.

Supportive Services. Service providers cited the complexity of funding streams as a barrier to understanding the true cost per person of providing supportive services. An accurate understanding of the cost per person served is an important input into the cost-benefit model, and the parties should align on the expected cost. Subsequently, project partners would have to allocate existing resources (i.e. CABHI grant, Home Stabilization Program, Medicaid) and PFS financing to cover the full cost of services.

In particular, a PFS project should focus on leveraging these resources while using flexible PFS funds to cover services that are not billable under existing programs. Using PFS to fill the gap in funding for supportive services would require additional coordination among state agencies and PFS-participating service providers to ensure project participants are eligible to be served under the applicable supportive service program. Such an approach will contribute to broader systems change and ensure the highest quality services are delivered for the highest utilizers and most vulnerable homeless individuals.

High-quality service providers. Pay for Success projects typically require nonprofits to scale up their operations significantly within a short period of time. The service provider landscape in Rhode Island includes 25+ organizations, but only a selection of these are providing high-quality PSH. Before scaling up services through PFS, project partners should do a more intensive assessment of provider capacity to scale and to provide high-quality PSH.

Referral and Enrollment Processes. For the purposes of a PFS project, a comprehensive referral and enrollment plan will need to be developed, piloted and implemented. Such a plan should identify and expand upon:

- **Existing referral processes**, such as the Coalition's bi-weekly placement meetings. At the placement meetings, the Coalition and local service providers navigate a by-person list, sorted by homelessness acuity. Individuals are referred to specific organizations based on level and type of need and service provider capacities. A PFS project should build on this coordinated effort to ensure that the most vulnerable and at-risk homeless individuals are availed PSH.
- **New referral points.** Engaging relevant RI government partners, such as DOC and EOHHS, will help inform potential moments where an eligible project participant may be identified and referred to the project.
 - Within DOC, assessments administered pre-release could help identify individuals that are: 1) without a home address and thus at a risk of homeless and 2) unstably housed

- and/or struggling with co-occurring mental health or substance use that would require supportive services. Formalized processes could ensure that these individuals are referred to the project and enrolled in PSH, should they require such level of support.
- Within EOHHS, certain types of healthcare utilization could be flagged as an indicator for project referral. Such indicators could include emergency service utilization—multiple emergency room visits or EMS rides—or prolonged utilization of state healthcare services, such as an extended state nursing home stays. Project partners would need to identify which, if any, of these healthcare interactions are indicative of being a strong fit for PSH.

PFS Feasibility Recommendations and Next Steps

The feasibility study findings suggest that there is a strong potential for a PFS project to expand PSH in Rhode Island.

There are still outstanding considerations—namely around the project scale and division of project resources between the state and the PFS project—which should be addressed by the state in assessing the feasibility of transitioning into the transaction structuring phase. In addition, any PFS project would have to abide by HUD/DOJ grant requirements, in particular that the total project budget is comprised of at least 50% PFS financing. We strongly believe that these considerations could be finalized during early stages of transaction structuring and that the minimum thresholds for pursuing a PFS project are in place.

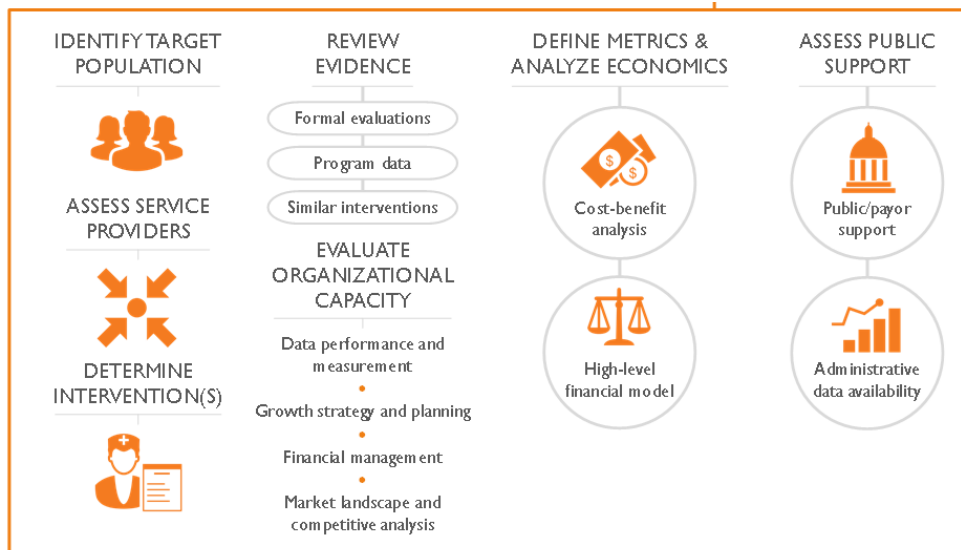
We recommend that the state pursue a PFS project to expand PSH to vulnerable homeless individuals in Rhode Island, in order to strengthen local communities, enhance care coordination among state agencies, and promote the provision of evidence-based programming among local service providers.

Appendix

Feasibility Methodology

The main components of Social Finance’s Feasibility Assessment framework are detailed below. While they are described sequentially, in reality, many of these processes are iterative, requiring feedback loops.

Figure 2: Social Finance feasibility framework



Identify target population(s). We first worked to understand beneficiaries. What do we know about the needs of various segments of the homeless population in Rhode Island? How well will the impact of a program translate to the target population among which it would be replicated? This analysis included understanding demographic characteristics (age, race, gender), local context (including community resources), and individual risk factors (e.g., prior health conditions)—and matching the resulting segments against appropriate interventions (see below).

Determine intervention(s). In our scan of interventions oriented toward the target population, we looked for rigorously evaluated and well-codified interventions. Evidence is at the heart of the Pay for Success model. We typically search for models with high-quality evaluations that seek to establish a causal link between a program and the outcomes we are seeking. At the same time, we look for interventions with clearly defined—and hence, more easily replicated—program models.

Assess service providers. Next, we assessed the landscape of community providers that offer (or could offer) these prioritized interventions, seeking to understand their track record and their organizational strengths and weaknesses. This included the strength of organizations not just in terms of their finances or operations, but also their ability to use data to track and improve programming and outcomes, and their connections to the community they serve. (Upon prioritizing a set of providers, we often conduct a deeper organizational assessment, though did not during this feasibility study.)

Review evidence. After choosing PSH for further exploration, we dove more deeply into its evidence. We focused on the following questions: what kinds of formal evaluations has PSH undergone? What are the strengths of those approaches, and what are their weaknesses (in terms of evaluation design, comparison group construction, statistically significant findings, power calculations, etc.)? How relevant are those evaluations to Rhode Island in terms of geography, demographics / target population, and delivery provider? We matched these formal evaluations against local programmatic data from current implementations, as well as similar kinds of interventions being applied locally. Ultimately, we estimated the expected impact of applying the intervention in Rhode Island—and the key risks / variability involved in doing so.

Define metrics and analyze economics. Using the intervention’s evidence base as a bedrock, we worked with project partners to determine which outcomes are most important to defining the project’s success. We looked for those that are aligned against the program and its evidence, but also that meet the State’s goals; that can be regularly assessed based on reliable and accessible data sources; that can be observed and measured within the project timeframe; and that clearly signify fiscal and community value. Central to this work is understanding and accessing relevant data systems—assessing our ability to integrate shelter, jails, and healthcare data, and to coordinate assessments and referrals.

Public support and next steps. Drawing from the previous analyses, we engaged project partners to consider a set of options for moving forward. In order to assess feasibility we worked to answer the following question: Is the potential benefit of the project—including our understanding of the fiscal vs. community value created, the split of that value between different partners (State, County, City, private), and the process of building a Pay for Success initiative—appealing? Are there alternative contracting mechanisms that might make more sense? What is the pathway forward?

Working Group and POC Members

Throughout the course of the feasibility study, we worked closely with a working group comprised of representatives from the following agencies:

- Office of the Governor
- Rhode Island Housing
- Office of Housing and Community Development
- Department of Corrections
- Executive Office of Health and Human Services (Medicaid)
- Department of Behavioral Healthcare, Developmental Disabilities and Hospitals (BHDDH)
- Rhode Island Coalition for the Homeless
- Harvard Kennedy School Government Performance Lab

In addition, our team held read-out meetings with a Project Oversight Committee comprised of key decision makers from the agencies above, as well as representatives from the Office of Management and Budget. The Project Oversight Committee was responsible for making the final decision on whether to proceed ahead into deal development.

Stakeholder Interviews and Project Governance Members

Stakeholder interviews

Throughout the study, we relied on the expertise of a number of individuals who contributed their time and insight.

Adrian Boney, *Rhode Island Foundation*
Brenda Brodeur, *RI Department of Corrections*
Brenda Clement, *HousingWorks RI*
Jeanne Cola, *LISC*
Holly Fitting, *Providence Center*
Karen Flora, *RI Department of Behavioral Healthcare, Developmental Disabilities and Hospitals*
Greta Hansen, *Santa Clara County Counsel*
Justine Hastings, *Rhode Island Innovative Policy Lab (RIIPL)*
Eileen Hayes, *Amos House*
Lauren Haynes, *University of Chicago, Data Science and Public Policy*
Joanne Hill, *RI Department of Corrections*
Tyler Jaeckel, *Harvard Kennedy School Government Performance Lab (Denver)*
Laura Jaworski, *House of Hope*
Deborah Kasemeyer, *Northern Trust*
Myra King-Kerge, *House of Hope*
Darryl Kosciak, *Rhode Island Coalition for the Homeless*
Daniel Kubas-Meyer, *Riverwood Mental Health Services*
Cindy Larson, *LISC*
Rebecca Lebeau, *RI Executive Office of Health and Human Services*
Judi Lena, *RI Executive Office of Health and Human Services*
Naomi Leipold, *United Way of Rhode Island*
Fraser Nelson, *Salt Lake County, Data and Innovation*
Stephanie Mercier, *Corporation for Supportive Housing*
Jay O'Grady, *LISC*
Diana Perdomo, *United Way of Rhode Island*
Jim Ryczek, *Where to Focus*
Karen Santili, *Crossroads RI*
Bill Stein, *House of Hope*
Joseph Walsh, *University of Chicago, Data Science and Public Policy*
Vicky Walters, *Providence Center*
Michelle Wilcox, *Crossroads RI*
Mitch Wippern, *County of Napa Health and Human Services*

Working Group Members

Michelle Brophy, *RI Department of Behavioral Healthcare, Developmental Disabilities and Hospitals*
Danielle Cerny, *Harvard Government Performance Lab*
Maria Cimini, *Rhode Island Coalition for the Homeless*
Teresa Foley, *RI Department of Corrections*
Alice Heath, *Harvard Government Performance Lab*
Eric Hirsch, *Rhode Island Coalition for the Homeless*
Jessica Mowry, *Rhode Island Housing*
Mike Tondra, *RI Office of Housing and Community Development*
Linnea Tuttle, *RI Executive Office of Health and Human Services, Home Stabilization Program*
Caitlin O'Connor, *RI Department of Corrections*
Marlanea Peabody, *RI Executive Office of Health and Human Services, Home Stabilization Program*

Matt Santacroce, *RI Governor's Office*

Project Oversight Committee Members

Rebecca Boss, *RI Department of Behavioral Healthcare, Developmental Disabilities and Hospitals*

Barbara Fields, *RI Housing*

Deb Florio, *RI Executive Office of Health and Human Services*

Darren McDonald, *RI Executive Office of Health and Human Services*

Thomas Mullaney, *Office of Management and Budget*

Carol Ventura, *RI Housing*

Lisa Vuraweis, *RI Governor's Office*

AT Wall, *RI Department of Corrections*

Barry Weiner, *RI Department of Corrections*

Jonathan Womer, *RI Office of Management and Budget*

PSH Evidence Base

Supportive housing interventions are often built upon the Permanent Supportive Housing (PSH) model and typically focus on the subset of the homeless population with the greatest need and highest utilization of emergency services. While there are numerous variations of the PSH model, key elements include the provision of affordable, safe housing which expects the participant to contribute no more than 30% of their income on housing costs, and linkages to wraparound services targeting mental illness, substance use disorder, physical health and employment readiness. There is currently no requirement on which wraparound services must be included in a PSH model, which has contributed to the creation of several variations, such as PSH+Assertive Community Treatment (ACT) and PSH+Critical Time Intervention (CTI).

The PSH model has been subject to evaluation through rigorous randomized controlled trials (RCT) and quasi-experimental evaluations.²¹ In particular, five RCTs focusing on relevant target populations for this project have been identified and described below. Of these evaluations, housing stability and proportion of time homeless appear to be the most consistently positive outcomes.

Figure 3. Select evaluation results of PSH

Study details	Target population	Outcomes measured	Effect sizes (comparison to control group)
RCT; 2003; Gulcur et al.	225 chronically homeless persons with psychiatric disabilities and often substance use disorder	<ul style="list-style-type: none"> Proportion of time homeless Proportion of time hospitalized (psychiatric inpatient) 	<ul style="list-style-type: none"> Reduction in proportion of time homeless (p<.001) Reduction in proportion of time hospitalized (p<.01)
RCT; 2003; Rosenheck et al.	460 homeless veterans with psychiatric and/or substance use disorder	<ul style="list-style-type: none"> Days housed Days homeless Cost of intervention 	<ul style="list-style-type: none"> Increase in days housed by 25% from standard care and 16% from case management only (p<.001 for both) Reduction in days homeless by 36% and 35% from control groups (p<.005 for both)
RCT; 2005; Greenwood et al.	197 homeless persons with mental illness (major Axis I diagnosis)	<ul style="list-style-type: none"> Proportion of time homeless Perceived choice Mastery Psychiatric symptoms 	<ul style="list-style-type: none"> Reduction in proportion of time homeless (p<.0001) Increase in perceived choice (p<.0001) No statistically significant change in mastery or psychiatric symptoms
RCT; 2005; Milby et al.	196 homeless persons with substance use disorder	<ul style="list-style-type: none"> Abstinence prevalence Days housed Days employed 	<ul style="list-style-type: none"> Increase in abstinence prevalence by 50% from no housing group (p<.0001)

²¹ <http://ps.psychiatryonline.org/doi/full/10.1176/appi.ps.201300261>

			<ul style="list-style-type: none"> No statistically significant change in days housed or employed between groups
RCT; 2007; Kertesz et al.	138 homeless persons with substance use disorder	<ul style="list-style-type: none"> Proportion of participants stably housed and employed over 60 days 	<ul style="list-style-type: none"> Increase in stable housing and employment by 8% from no housing group (p=.11)

The figures below summarize PSH’s evidence of impact on **housing outcomes, health outcomes and criminal justice outcomes**.

Figure 4. Summary of PSH Housing Outcomes research

Study	Population	Outcome Measured	Findings
RCT; 2012; Basu et al.*	407 homeless adults with chronic medical illnesses	<ul style="list-style-type: none"> Days spent in shelter Days homeless 	<ul style="list-style-type: none"> Reduction in shelter days by 0.07 (p>.10) Reduction in days homeless by 62 (p<.05)
RCT; 2007; Kertesz et al.	138 homeless persons with substance use disorder	<ul style="list-style-type: none"> Proportion of participants stably housed and employed 	<ul style="list-style-type: none"> Increase in stable housing and employment by 8% (p=.11)
RCT; 2005; Milby et al.	196 homeless persons with substance use disorder	<ul style="list-style-type: none"> Abstinence prevalence Days housed Days employed 	<ul style="list-style-type: none"> Increase in abstinence prevalence by 50% from no housing group (p<.0001) No statistically significant change in days housed or employed between groups
RCT; 2005; Greenwood et al.	197 homeless persons with mental illness	<ul style="list-style-type: none"> Proportion of time homeless 	<ul style="list-style-type: none"> Reduction in proportion of time homeless from 0.29 to 0.15 (p<.0001)
RCT; 2004; Tsemberis et al.	225 homeless adults with mental health conditions	<ul style="list-style-type: none"> Proportion of time homeless 	<ul style="list-style-type: none"> Significant decrease in proportion of time homeless compared to control group
RCT; 2003; Rosenheck et al.	460 homeless veterans with psychiatric and/or substance use disorder	<ul style="list-style-type: none"> Days housed Days homeless 	<ul style="list-style-type: none"> Increase in days housed by 25% from standard care group and 16% from case management only (p<.001 for both) Reduction in days homeless by 36% and 35% from control groups (p<.005 for both)
RCT; 2003; Gulcur et al.*	225 chronically homeless persons with psychiatric disabilities and	<ul style="list-style-type: none"> Proportion of time homeless 	<ul style="list-style-type: none"> Reduction in proportion of time homeless (p<.001)

	sub. use disorder		
Control-Group Pre-Post Comparison; 2014; Aidala et al.*	72 participants in NYC FUSE II program experiencing chronic homelessness and frequent usage of public services	<ul style="list-style-type: none"> • Days spent in permanent housing • Days spent in shelter 	<ul style="list-style-type: none"> • 86% in permanent housing compared to 42% in the comparison group (p<.001) • 146.7 fewer average days in shelter (reduction by 70%) compared to comparison group (p<.001)
Matched Control-Group Pre-Post Comparison; 2002; Culhane et al.*	3,365 homeless adults with mental illness and recent shelter usage	<ul style="list-style-type: none"> • Days spent in shelter 	<ul style="list-style-type: none"> • Reduction in shelter days by 86% over 2 years, compared to 6.4% decrease by control group

Figure 5. Summary of PSH Health Outcomes research

Study	Population	Outcome Measured	Findings
RCT; 2012; Basu et al.* and RCT; 2009 Sadowski et al.	407 homeless adults with chronic medical illnesses	<ul style="list-style-type: none"> • Hospitalizations • Hospital days • ER visits • Annual cost of services 	<ul style="list-style-type: none"> • Reduction in hospitalizations by 0.47 • Reduction in hospitals days by 2.64 (p<.10) • Reduction in ER visits by 1.27 (p<.05) • Significant reduction in annual cost of services
RCT; 2003; Gulcur et al.*	225 chronically homeless persons with psychiatric disabilities and sub. use disorder	<ul style="list-style-type: none"> • Proportion of time hospitalized (psychiatric inpatient) 	<ul style="list-style-type: none"> • Reduction in proportion of time hospitalized by 12% (p<.01)
Control-Group Pre-Post Comparison; 2014; Aidala et al.*	72 participants in NYC FUSE II program experiencing chronic homelessness and frequent usage of public services	<ul style="list-style-type: none"> • Usage of substances and hard drugs • Ambulance rides • ER visits • Hospitalization days • Psych. hospital days 	<ul style="list-style-type: none"> • Reduction in hard drug use and drug use disorder by 16.5% (p<.001) and 6.5% (p<.01) respectively • Reduction in ambulance rides by .54 (p<.05) • Reduction in ER visits by .08 (p>.05) • No significant change in hospital days

		<ul style="list-style-type: none"> Residential detox days 	<ul style="list-style-type: none"> Reduction in psychiatric hospital days by 4.42 (p<.05) Reduction in residential detox days by 9.83 (p<.001)
Control-Group Pre-Post Comparison; 2013; NYC Dept of Health and Hygiene*	1,695 homeless individuals including those with mental illness and sub. use disorder	<ul style="list-style-type: none"> Average Medicaid utilization costs Average psychiatric facility utilization costs 	<ul style="list-style-type: none"> Savings in Medicaid utilization costs of \$935 per individual compared to comparison group Savings in State psychiatric facility costs of \$18,668 per individual compared to comparison
Pre-Post; 2014; Thomas et al.*	73 formerly homeless residents of supportive housing program	<ul style="list-style-type: none"> ER visits Hospitalizations Hospital costs 	<ul style="list-style-type: none"> Reduction in ER visits by 81% Reduction in hospitalizations by 62% Reduction in hospital charges by 68%
Pre-Post; 2012; MA Housing & Shelter Alliance*	555 formerly chronically homeless individuals	<ul style="list-style-type: none"> ER visits Hospital days Ambulance rides 	<ul style="list-style-type: none"> Reduction in ER visits from 3.42 to 1.79 (12 mo.) Reduction in hospital days from 5.48 to 3.84 Reduction in ambulance rides from 1.53 to 0.83

Figure 6. Summary of PSH Criminal Justice Outcomes research

Study	Population	Outcome Measured	Findings
RCT; 2013; Somers et al.	297 homeless individuals with mental disorder	<ul style="list-style-type: none"> Number of re-offenses / re-convictions 	<ul style="list-style-type: none"> Significantly lower number of criminal justice convictions than control group (Adjusted IRR¹=0.29, p<.01)
RCT; 2012; Basu et al.*	407 homeless adults with chronic medical illnesses (high utilizers of healthcare resources)	<ul style="list-style-type: none"> Number of arrests Number of reconvictions Days incarcerated (prison) Days incarcerated (jail) 	<ul style="list-style-type: none"> Reduction in arrests by 0.05 Reduction in reconvictions by 0.03 (p<.10) Reduction in prison days by 7.73 (p<.10) Increase in jail days by 4.06

Control-Group Pre-Post Comparison; 2014; Aidala et al.*	72 participants in NYC FUSE II program experiencing chronic homelessness and frequent usage of public services	<ul style="list-style-type: none"> Days incarcerated 	<ul style="list-style-type: none"> Reduction in days incarcerated by 40% compared to comparison group (p<.01)
Control-Group Pre-Post Comparison; 2013; NYC Dept of Health and Hygiene*	1,695 homeless individuals including those with mental illness and substance use disorder	<ul style="list-style-type: none"> Average jail utilization costs per individual 	<ul style="list-style-type: none"> Savings in jail utilization costs of \$1,298 per individual compared to comparison group
Matched Control-Group Pre-Post Comparison; 2002; Culhane et al.*	3,365 homeless adults with mental illness and recent shelter usage	<ul style="list-style-type: none"> Days incarcerated (prison) Days incarcerated (jail) 	<ul style="list-style-type: none"> Reduction in prison days by 73%, compared to 5% <i>increase</i> by control group Reduction in jail days by 40%, compared to 8.7% decrease in control group
Pre-Post; 2012; MA Housing & Shelter Alliance*	555 formerly chronically homeless individuals	<ul style="list-style-type: none"> Days incarcerated 	<ul style="list-style-type: none"> Reduction in days incarcerated from 8.03 to 0.72 (12 mo.)

Illustrative Project Budget

Our recommendation is that the project serve 125 high utilizers of services, with the PFS project covering the cost of housing for 75 individuals and ~30% of the cost of services. This would result in a total project budget of ~\$13.2M, with ~\$6.6M covered by PFS financing. The project budget includes the cost of services as well as project-related costs for PFS project management, legal fees, evaluation, and project administration.

Under these assumptions, the annual project budget would ~\$2.6M—of which 52% would be funded by a PFS project and the remaining 48% would be funded via existing state resources. As such, the state would be responsible for ~\$10,500 per person served per year in supportive service and housing subsidy/voucher costs.

Total Project Budget <i>PFS Capital Raise + State Contribution</i>	Year 1	Year 2	Year 3	Year 4	Year 5	Total
<u>Service delivery costs</u>						
<i>Housing costs – 50 existing vouchers</i>	\$450,000	\$450,000	\$450,000	\$450,000	\$450,000	\$2,250,000
<i>Housing costs – 75 new PFS-funded vouchers</i>	\$675,000	\$675,000	\$675,000	\$675,000	\$675,000	\$3,375,000
<i>Supportive services – existing resources (70%)</i>	\$875,000	\$875,000	\$875,000	\$875,000	\$875,000	\$4,375,000
<i>Supportive services – new PFS funding (30%)</i>	\$375,000	\$375,000	\$375,000	\$375,000	\$375,000	\$1,875,000
<i>Contingency fund</i>	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$100,000
<u>Other Project Costs</u>						
<i>Active Performance Management</i>	\$85,000	\$85,000	\$85,000	\$85,000	\$85,000	\$425,000
<i>Legal</i>	\$150,000	\$10,000	\$10,000	\$10,000	\$10,000	\$190,000
<i>Evaluation and validation</i>	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$500,000
<i>Audit, D&O, 3rd party administrator</i>	\$35,000	\$35,000	\$35,000	\$35,000	\$35,000	\$175,000
<u>Total Project Budget</u>	\$2,765,000	\$2,625,000	\$2,625,000	\$2,625,000	\$2,625,000	\$13,265,000
<u>Total PFS Capital Raise Budget</u>	\$1,440,000	\$1,300,000	\$1,300,000	\$1,300,000	\$1,300,000	\$6,640,000
<u>Total State Contribution</u> <i>(re-allocation of existing resources)</i>	\$1,325,000	\$1,325,000	\$1,325,000	\$1,325,000	\$1,325,000	\$6,625,000

Learning from other jurisdictions

In recent years, a number of jurisdictions have focused significant resources on targeting a small group of high-utilizing homeless individuals. We highlight here four areas that have pursued similar paths toward improving outcomes for the persistently homeless:

- ***Santa Clara.*** Launched in August 2015, Project Welcome Home provides Permanent Supportive Housing and Assertive Community Treatment to 150-200 chronically homeless individuals who are high users of County emergency rooms, acute mental health facilities, and jails. Abode Services, a nonprofit agency in the San Francisco Bay Area, provides supportive housing services in partnership with the County’s Office of Supportive Housing and Behavioral Health Services. Project Welcome Home will draw on \$6.9M in private capital raised via Pay for Success financing over 6 years, as well as \$7.7M in Medicaid-reimbursable mental health services and \$4M in County-subsidized housing units and vouchers. The project’s target impact is for more than 80% of participants to achieve 12 months of continuous stable tenancy. The County will repay up-front private investors when project participants achieve specific tenancy milestones (3-month, 6-month, 9-month and 12-month).²²
- ***Denver.*** Launched in February 2016, the Denver Pay for Success project provides Permanent Supportive Housing and Assertive Community Treatment to 250 chronically homeless individuals who frequently interact with the police, jail, detox, and emergency care systems. The cost to taxpayers of providing these safety-net services to 250 homeless individuals is roughly \$7M per year, from an average 14,000 days in jail, 2,200 visits to detox, 1,500 arrests and 500 emergency room visits. The Colorado Coalition for the Homeless and Mental Health Center of Denver will provide the supportive housing services, in partnership with the City and County of Denver, with the goal of reducing expensive encounters and helping individuals lead more stable and productive lives. The project will draw on 210 new units and 40 existing units throughout the city, leveraging \$8.7M in private capital raised via Pay for Success finance, and an additional \$15M in Federal resources over five years of service delivery. The City will repay up-front investors up to \$11.42M based on achievement of outcomes from the project’s randomized controlled trial measuring reductions in jail bed days and improved housing stability.²³
- ***Salt Lake.*** Launched in December 2016, the Salt Lake County Pay for Success Homes Not Jail project provides a range of housing assistance and support services, including rental assistance and intensive case management services, to 315 persistently homeless individuals who have spent between 90 and 364 days over the previous year in emergency shelter or on the streets. The Road Home, a local nonprofit, will provide the supportive housing services, in partnership with the County of Salt Lake, over six years. At target impact levels, the program will generate 1,500 more stable housing months—defined as months without jail or shelter—and 250 graduations to permanent housing. At this impact level, the County will make \$5.55M in success payments to repay up-front investors.²⁴
- ***Los Angeles.*** Launched in 2013, the Los Angeles Housing for Health program provides Permanent Supportive Housing and intensive case management to Department of Human Services patients with complex physical and behavioral health conditions (e.g., mental health issues, HIV/AIDS, substance use disorder, and other chronic conditions). The

²² Third Sector Capital Partners, “[Project Welcome Home Fact Sheet](#),” 2015.

²³ Corporation for Supportive Housing, “[Fact Sheet: Denver Social Impact Bond program to address homelessness](#),” 2016.

²⁴ Third Sector Capital Partners, “[Fact Sheet: Salt Lake County Pay For Success Initiative](#),”

initiative includes a housing rental subsidy program called the Flexible Housing Subsidy Pool (FHSP), managed by housing intermediary called Brilliant Corners. The LA County Board of Supervisors approved \$14M toward the FHSP over four years, matched with \$4M from the Hilton Foundation over two years. This funding is expected to provide stable housing for at least 2,400 individuals, in addition to intensive case management supportive services.²⁵

²⁵ LA County Housing for Health, "[Flexible Supportive Housing Pool](#)."

Glossary

Terminology	Definition	Description
BHDDH	Rhode Island Department of Behavioral Healthcare, Developmental Disabilities, and Hospitals	Rhode Island State agency. Member of feasibility study working group
CABHI	Cooperative Agreements to Benefit Homeless Individuals	Competitive grant program funded by SAMHSA to support state and local community efforts to provide behavioral health and recovery-oriented services to individuals experiencing homelessness
CBA	Cost-Benefit Analysis	Analysis performed by Social Finance as part of this feasibility study assessment to determine the cost-benefit of scaling up PSH for different subsets of the homeless population in Rhode Island
CHF	Consolidated Homeless Fund	State fund that provides funding to support OHCD rental subsidy program and other homeless assistance programs; administered by OHCD/HRC
CoC	Continuum of Care	Local organization, body, or agency that coordinates housing and services funding for homeless families and individuals via HUD funds
DOC	Rhode Island Department of Corrections	Rhode Island State agency, unified system that oversees both pre-trial and post-conviction populations. Member of feasibility study working group.
GPL	Harvard Kennedy School's Government Performance Lab	Organization within Harvard's Kennedy School that provides technical assistance to state and local governments to improve public policy decision making and results. Member of feasibility study working group
HMIS	Homeless Management Information System	National information system, administered by local jurisdiction Continuum of Care agencies, that captures shelter program utilization of homeless individuals
HRC	Housing Resource Commission	Provides funding to support OHCD rental subsidy program, general oversight of subsidized housing resources
LSI-R	Level of Service Inventory-Revised	Validated risk/need assessment tool used by DOC to identify problem areas in an offender's life and predict his/her risk of recidivism
Housing First		Evidence-based model of approaching homeless assistance by providing access to long-term /

		permanent housing as soon as possible, without significant barriers or requirements
OHCD	Rhode Island Office of Housing and Community Development	Rhode Island State agency; includes Housing Resources Commission and Consolidated Homeless Fund. Member of feasibility study working group
OHHS / EOHHS	Rhode Island Executive Office of Health and Human Services	Rhode Island State agency; responsible for administration of Medicaid services. Member of feasibility study working group
OHHS Home Stabilization	Rhode Island State Medicaid Home Stabilization Program	Program administered by OHHS—in accordance with the Medicaid 1115 Waiver—that provides home-find and tenancy services for Medicaid-enrolled individuals
PSH	Permanent Supportive Housing	Evidence-based intervention to support individuals experiencing homelessness, includes access to housing and wraparound services
RCT	Randomized Controlled Trial	A type of experiment / evaluation methodology that is used to test the effectiveness of an intervention via randomization into control and treatment groups
RI Housing	Rhode Island Housing	Rhode Island State agency; administers several subsidized housing programs and vouchers. Member of feasibility study working group
SAMHSA	U.S. Substance Abuse and Mental Health Services Administration	Federal agency
VI-SPDAT	Vulnerability Index Service Prioritization Decision Assistance Tool	Standardized assessment tool used by homeless service providers across the country to assess the needs of homeless persons and match them with appropriate supports and housing interventions