Permanent supportive housing helps solve our country’s homelessness crisis by improving housing stability and reducing the use of public services. The permanent supportive housing approach is backed up by promising evidence, but it can face barriers to implementation because of a lack of political will and budgetary constraints (Brennan, Cunningham, and Gastner 2017). Some local governments are exploring a financing model called pay for success (PFS), which shifts the financial risk from traditional funders (typically a government) to alternative investors, such as foundations or banks. As of 2018, PFS had funded seven supportive housing interventions.

Permanent supportive housing, which we refer to here as supportive housing, couples affordable housing with wraparound services to promote health and well-being for people experiencing homelessness and people with disabilities. Because PFS is a performance-based financing model (box 1), it can also help build evidence on how supportive housing can reduce or divert costs from other, nonhousing sectors and be cost-effective for local governments.

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**BOX 1**

**Pay for Success**

PFS is an innovative financing mechanism that shifts financial risk from a traditional funder—usually a government—to a private or nonprofit funder. The new investor provides up-front capital to scale an evidence-based program to improve outcomes for a vulnerable population. If an independent evaluation shows that the program achieved agreed-upon outcomes, then the investment is repaid by the traditional funder with interest. If not, the investor takes the loss. This model shifts financial and reputational risk from the government to external investors and promotes rigorous evaluation and meaningful outcomes. By prioritizing evidence, outcomes, performance management, and the strategic deployment of resources, PFS has the potential to improve how social services are delivered to the most vulnerable, yielding benefits to individuals, governments, and society at large. To learn more, visit [pfs.urban.org](http://pfs.urban.org).
Although the evidence base and examples of PFS-funded supportive housing programs are growing, setting up projects to capture outcomes and impacts can be rigorous and daunting. This brief offers guidance on initial steps to get PFS supportive housing efforts off the ground. It is intended for organizations, government entities, and local stakeholders interested in designing a PFS supportive housing project and focuses on building the necessary capacity to measure outcomes.

In the sections that follow, we present six steps to establish an evidence-based supportive housing PFS program that can measure and link payments to outcomes:

1) Define the problem and identify local stakeholders
2) Identify your target population
3) Determine the intervention
4) Define outcomes and potential cost savings
5) Pinpoint the data sources needed to track results
6) Identify an evaluator and end payor (see figure 2 for more on PFS actors).

For each step, we discuss high-level considerations for stakeholders interested in launching a PFS supportive housing project. Urban’s work evaluating supportive housing programs and providing technical assistance to 28 sites considering PFS projects inform these recommendations (see, for example, Cunningham et al. 2016; Leopold and Ho 2015; Pergamit et al. 2016). Urban’s technical assistance work was funded through the Pay for Success Initiative and the Pay for Success Administrative Data Pilot (box 2).

The life of a PFS project consists of several phases. Most include feasibility, structuring, and implementation phases, with impact evaluation occurring during implementation. (The phases are not always necessarily in that order.) The steps outlined in this brief are especially helpful in the feasibility phase, to help move the project toward launch. These are not the only steps stakeholders must take during the feasibility phase, and they don’t always happen in a precise order, but they collectively provide a framework and starting point for a collaborative supportive housing endeavor grounded in evidence and tied to outcome payments.

This brief focuses on PFS, but the six steps outlined here also relate to other performance-based strategies that emphasize outcomes and impacts over outputs.1 We present the steps linearly, but in practice, the order can change, and sometimes several components move forward at the same time. For example, we list identifying an end payor (typically a government entity) and evaluator as the sixth and final step, but many past projects have engaged evaluators during project planning to help design the intervention and to identify data and outcomes.
BOX 2
Pay for Success Administrative Data Pilot and Products

This brief is part of a series designed to help states, municipalities, and local organizations identify, link, and analyze administrative data to better track outcomes of the social services they deliver. The guidance provided in each product emerged from training and technical assistance the Urban Institute provided to 28 communities during 2015–19 as part of our Pay for Success Initiative and Pay for Success Administrative Data pilot. Funded by Arnold Ventures and the Corporation for National Community Service, Urban supported partners in addressing and overcoming barriers to administrative data access so that their communities will be better equipped to move toward implementing PFS and other performance-based strategies.

The additional products in this series provide recommendations on how to navigate some of the most vital processes undertaken by communities Urban worked with. They are as follows:

- Guidance on Collecting Administrative Data for Pay for Success Projects, which shares lessons from four organizations that tackled administrative data challenges as they carried out a PFS program.
- Assessing Feasibility Studies, which offers guidance on determining whether pay for success is a viable strategy for a specific intervention.
- Developing a Collaborative Planning Team, which provides tips on bringing together and engaging diverse stakeholders around data collection and sharing.
- Understanding Community Resources, which delivers step-by-step guidance for stakeholders who want to match data across agencies.


Step 1: Define the Problem and Identify Local Project Stakeholders

Supportive housing interventions require collaboration across agencies and organizations to launch and be sustainable. Any stakeholder interested in a PFS supportive housing project likely already has a general understanding of the issues that warrant the implementation of a supportive housing intervention, but clearly defining the nature of the problem at the project outset is important. The problem could be high rates of people experiencing homelessness and the subsequent impacts of homelessness on different service systems, such as through high arrest or recidivism rates in jails; prevalence of mental, behavioral, or physical health issues; high emergency department use; or a combination of challenges. Defining the problem early on will help identify other stakeholders, relevant datasets, potential interventions, and the outcomes of interest.
The data needed to identify a target population and track outcomes will likely exist across several city agencies or service providers. For instance, in 2016, the US Department of Housing and Urban Development and the US Department of Justice launched an evaluation to assess whether providing supportive housing in a PFS framework could improve certain outcomes. Many of the sites began their feasibility process by assessing their homelessness, criminal justice, and health sector data. Several data sources were needed to understand the target population's status quo and to measure success (Gillespie, Batko, and Liberman 2018).

PFS projects also typically involve a unique set of stakeholders aside from direct service providers, such as investors or intermediaries. Identifying these various stakeholders and convening local partners is the first step in designing a supportive housing program that uses PFS funding.

**Supportive Housing Stakeholders**

Supportive housing interventions are often driven by a desire to coordinate services that address the needs of people experiencing chronic homelessness and to make more appropriate and efficient use of public systems. Many entities may want to be involved in supportive housing planning, including local police departments, sheriff’s departments, jails, pretrial and probation courts, hospitals, human services departments, public health departments, and the homelessness continua of care. When approaching partners, it is helpful to discuss shared goals and to explain how collaboration and linking data systems will be mutually beneficial. One way to make cross-agency data linking more accessible is to establish a steering committee or working group with data representatives from each relevant organization. This can help establish formal partnerships and sustain active involvement among partners as the project continues (Gillespie, Batko, and Liberman 2018).
In Charlottesville, Virginia, Urban helped the local homelessness continuum of care set up a committee to begin discussions around supportive housing and PFS. The committee meets monthly to discuss priorities, draft data sharing agreements, and share characteristics and trends in its datasets with other stakeholders with overlapping service populations. In Charlottesville, the committee was structured as follows:

- **Chair:** Assistant Director, Department of Social Services, City of Charlottesville
- **Facilitators:** Executive Director, Thomas Jefferson Area Coalition for the Homeless, and Chief of Fire and EMS, City of Charlottesville
- **Project Coordinator:** Student, University of Virginia
- **Members:**
  - Chief Operating Officer, University of Virginia Department of Medicine
  - Chief, Division of General Medicine, Geriatrics, and Palliative Care, University of Virginia Department of Medicine
  - Interim Assistant City Manager, City of Charlottesville
  - Criminal Justice Planner, Thomas Jefferson Area Community Criminal Justice Board
  - Systems Performance Analyst, Charlottesville Fire and EMS
  - Executive Director, Partner for Mental Health
  - Professors, University of Virginia
  - Community Relations Lead, University of Virginia Health System
  - Community Health Coordinator, Thomas Jefferson Health District
  - Training and Technical Assistance Manager, Policy Associates, and Policy Assistant, Urban Institute

In any supportive housing program, identifying and convening these stakeholders early is critical so they can begin the vital work of building trust and creating a community vision for improved housing and health outcomes.³

**PFS Stakeholders**

PFS projects have their own partners that will need to be involved in a planning process.

Most PFS projects are initiated by **government** actors (or government actors leading planning teams with other stakeholders) who have identified either an underserved population or a promising intervention that has the potential for scaling. Governments coordinate with **investors** who are willing to put up initial capital for the intervention, identify **evaluators** to measure and track the outcomes, find one or more **service providers** who can deliver the services, and often include an **intermediary** to help coordinate the project. Figure 2 provides more guidance.

In the context of supportive housing PFS projects, these entities overlap somewhat. At a minimum, any supportive housing collaborative planning team will include some government representation, at
least one service provider, and an evaluator. The exact roster and order of stakeholders will vary based on the local context. In the early stages, communities should focus on setting up a regularly occurring meeting that is inclusive and open to any interested party. Doing so will allow for stronger community trust, more engagement, and a better chance of bringing the right actors to the table.

**FIGURE 2**  
**PFS Actors**

**Who Is Involved in a PFS Project?**

A PFS project typically involves five main actors in addition to the beneficiaries of the project’s services:

- **The government** influences the topic area (such as criminal justice, housing and homelessness, or education) and serves as the “end payor” if the program is successful.

- **The investor** provides the initial capital to fund service delivery and will be repaid only if the program improves participant outcomes.

- **The evaluator** conducts an independent evaluation of the program to determine if it achieved the desired outcomes.

- **The service provider** delivers program services.

- **The intermediary** is a coordinating entity that supports PFS projects in several ways, such as contributing to the evaluation design, aiding in raising capital, and structuring the final terms of the project.

**Step 2: Identify Your Target Population**

An initial step in designing a PFS supportive housing program is for stakeholders to identify who the program will serve. The target population is most often adults experiencing chronic homelessness who have co-occurring medical and behavioral health conditions. This group can often be heavy users of high-cost services such as hospitals or detox centers, and addressing their needs could avoid some of those costs.

Narrowly defining a target population helps ensure the intervention can be fine-tuned to productively meet specific needs. For example, families experiencing homelessness and residing in shelters will likely need different types of services than single men who live on the street. A narrowly defined target population can also make it easier to understand and identify potential cost drivers across various service systems (Milner et al. 2016).
When identifying a target population, carefully consider and define the key characteristics that unite the group or drive their service use (e.g., their arrest history, length or frequency of homelessness, or patterns of service use). Table 1 includes examples of the target populations in each of the seven PFS supportive housing projects active in the United States as of 2019. Each of these projects has an explicitly defined target population and inclusion criteria. For example, each project clearly defines what it means to be “chronically homeless” or to “frequently” interact with the criminal justice system.

When determining who to serve, it is vital to use the existing evidence base on supportive housing to identify populations that have demonstrated positive outcomes. Table 1 shows the existing PFS supportive housing projects as of 2019, their target populations, and their intended outcomes in different service systems.

**TABLE 1**

*Target Populations in US Pay for Success Supportive Housing Interventions*

<table>
<thead>
<tr>
<th>PFS project</th>
<th>Intervention target population</th>
<th>Outcomes tied to payment</th>
<th>Outcomes tracked but not tied to payment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chronic Homelessness Pay for Success Initiative (Massachusetts)</td>
<td>High-use homeless individuals who either: (1) meet the US Department of Housing and Urban Development’s definition of “chronically homeless,” a or (2) are identified by Massachusetts Alliance for Supportive Housing as homeless, anticipated high-cost users of emergency services in its reasonable judgment</td>
<td>1. Stable housing for at least 1 year</td>
<td>Health care service usage; number of nights spent in shelter; number of days incarcerated</td>
</tr>
<tr>
<td>Denver Supportive Housing Social Impact Bond Initiative</td>
<td>Adults with at least eight arrests over the past three years who were experiencing chronic homelessness (identified as transient, meaning they have no address or have provided the address of a shelter) at the time of their last arrest</td>
<td>1. Housing stability</td>
<td>Emergency services, shelter and criminal justice system utilization</td>
</tr>
<tr>
<td>Los Angeles County Just in Reach Project</td>
<td>Individuals experiencing homelessness who are currently in custody in a county jail and who have a mental health or substance-use disorder</td>
<td>1. Housing retention at 6 months and 12 months; 2. Reduction in number of arrests using two-year period following placement into supportive housing</td>
<td>Service utilization</td>
</tr>
<tr>
<td>Partnering for Family Success Program (Cuyahoga County, OH)</td>
<td>Homeless families with children currently in the Department of Children and Family Services temporary out-of-home placement</td>
<td>1. Days in out-of-home placement for children</td>
<td>Family reunification</td>
</tr>
<tr>
<td>PFS project</td>
<td>Intervention target population</td>
<td>Outcomes tied to payment</td>
<td>Outcomes tracked but not tied to payment</td>
</tr>
<tr>
<td>-----------------------------------</td>
<td>-------------------------------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Project Welcome Home (Santa Clara County, CA)</td>
<td>Individuals experiencing chronic homelessness defined as high-cost users of county services using a predictive screening tool that assesses historical utilization data</td>
<td>1. Months of stable tenancy</td>
<td>Health care, social service and criminal justice system utilization</td>
</tr>
<tr>
<td>Salt Lake County’s Homes Not Jail Program</td>
<td>Persistently homeless individuals (who have spent 90 to 364 days in emergency shelters or on the streets and do not qualify for other housing services in the County)</td>
<td>1. Number of months without any shelter or jail; 2. Number of participants who graduate to permanent housing location; 3. Number of enrollments into mental health services; 4. Number of enrollments into substance abuse services</td>
<td>NA</td>
</tr>
<tr>
<td>Salt Lake County’s REACH Program</td>
<td>Formerly incarcerated adult males</td>
<td>1. Reduction in arrests; 2. Reduction in days incarcerated; 3. Improvement in number of employment quarters; 4. Number of individuals engaged in 200 hours of treatment within six months of enrollment</td>
<td>NA</td>
</tr>
</tbody>
</table>


**Note:** NA = not applicable. More information on the Massachusetts’s Chronic Homelessness program, the LA County Just in Reach Project, Project Welcome Home, Homes Not Jail, and the REACH Program is available at “PFS Project Fact Sheets,” Urban Institute, accessed September 30, 2019, [https://pfs.urban.org/pfs-project-fact-sheets](https://pfs.urban.org/pfs-project-fact-sheets). The definition of Chronically Homeless is from the [“Homeless Emergency Assistance and Rapid Transition to Housing (HEARTH): Defining ‘Chronically Homeless’ Final Rule,”](https://www.hudexchange.info/resource/4847/hearth-defining-chronically-homeless-final-rule/) HUD Exchange, December 2015.
Determining the Size of Your Target Population

Along with identifying who the target population will be, implementation partners must determine how many people the program can serve. In doing so, partners will want to consider the following questions.

HOW MANY PEOPLE FIT THE ELIGIBILITY CRITERIA?
To answer this question, stakeholders should use data to see how priority populations manifest across local datasets. Estimating the size of the potential target population will determine what resources are needed and what evaluation designs are possible. More information on using data to identify a target population is provided in the following section.

WHAT RESOURCES ARE AVAILABLE TO SCALE SERVICES OR PROVIDE NEW ONES?
Typically, a limiting factor in supportive housing interventions is the lack of affordable housing and rental subsidies. Stakeholders should engage with their local public housing agency, other public agencies with local rental assistance programs, affordable housing developers, and property managers early in the process to determine the availability of housing assistance within their target area.

Some supportive housing projects are project-based, meaning participants live in subsidized units set aside for the program in particular housing developments; participants in another model use portable vouchers to rent apartments within the community. The type of housing and the number of units available will inform how narrowly to define the target population. Depending on the source of housing, stakeholders will need to define the target population in a way that does not violate fair housing rules. For example, housing authorities cannot create a housing preference for people with a specific type of disability.

Another potentially limiting factor is the resources available to provide case management and supportive services. Supportive housing programs vary substantially in the type and intensity of the supportive services they offer. Most rely on a case management approach, where a social worker works with a caseload of people to help them stay housed; provide transportation assistance; and refer tenants to health care, social services, employment services, and volunteer opportunities. The ratio of tenants to case managers in this model can vary from fewer than 10:1 to up to 60:1.

Other programs use a behavioral health or medical model to deliver services. This model, rather than relying on a single case manager, uses a team-based approach and clinical social workers to provide specialized primary and behavioral health services (Dickson-Gomez et al. 2017). No clear evidence supports the relationship between service models in supportive housing and participant outcomes. The type of service model chosen should depend on the needs of the target population, the preferred model of the service provider, the type of housing assistance provided (e.g., project-based versus portable vouchers), and the availability of resources.

WHAT IS THE IDEAL SAMPLE SIZE TO ENSURE THE EVALUATION IS AS RIGOROUS AS POSSIBLE?
When determining the sample size, keep the evaluation design and methodological approach in mind. Too small of a sample size will make it difficult to measure outcomes. But too big of a sample can stretch
resources too thin, making success unlikely. For more information on target population and evaluation designs, see the report by Gillespie and colleagues (2016).

**What Data Are Available to Identify Your Target Population?**

Stakeholders’ ability to precisely define the target population data depends on the availability of data. Data sources could originate from a city agency (such as a police department or emergency services unit) or historical data on service use (such as the Homeless Management Information Systems). Past projects have taken advantage of partnerships built during Step 1 to build trust and share data among agencies and organizations.

**Step 3: Determine the Intervention**

As with selecting a target population, evidence on supportive housing programs should inform decisions on which intervention to select, which services to provide, and which outcomes to target (Milner and Eldridge 2016). Stakeholders ultimately need to resolve two questions: what type of housing will be provided, and what types of services will be provided? The seven current supportive housing PFS projects use different approaches (summarized in table 2).

**WHAT KIND OF HOUSING IS BEING PROVIDED?**

Supportive housing is provided and financed using several strategies. Generally, supportive housing refers to programs that offer non-time-limited rental subsidies with some connection to services. All of the PFS projects in table 2 use a non-time-limited housing model except Salt Lake County’s Homes Not Jail program, which uses a rapid rehousing model.

Some programs, such as Boise’s New Path Community Housing, built new units for the project. Other initiatives have taken advantage of existing housing. The Denver Social Impact Bond project provides housing in a combination of ways, including two new buildings built with low-income housing tax credits and scatter-site units, which are existing rental housing units in the community that are paired with a housing subsidy and services to convert them to supportive housing (Cunningham et al. 2016).

Housing can also be financed using a variety of strategies. Virginia offers supportive housing forgivable loans that don’t require repayment if the project is remains supportive housing for at least 20 years (VDHCD 2018). Supportive housing has also been funded using tax-exempt bonds and low-income housing tax credits (Biber 2007). Housing choice vouchers (formerly known as Section 8 vouchers) are also used to reduce homelessness and provide housing.

**WHAT KIND OF SERVICES ARE BEING DELIVERED?**

The main differences across PFS supportive housing projects are the actual services offered. One option is to use an assertive community treatment model in combination with supportive housing to integrate community mental health services. Both the Denver Social Impact Bond and Santa Clara’s Project Welcome Home use the assertive community treatment model. Other service delivery models might
include a nurse, case manager, or psychiatrist, or they may differ in duration or dosage. Massachusetts’s Home and Healthy for Good Program combines supportive housing with medical and mental health care, substance abuse treatment, case management, vocational training, and life skills training.

Stakeholders should consider the needs of the target population, the evidence base, and the availability of community resources when selecting service models and providers.

### Step 4: Select Outcomes and Assess Value

In PFS projects and other performance-based funding models, stakeholders are looking not only to improve outcomes for a specific target population but also to link payments to those improved outcomes. A strong body of evidence shows that supportive housing increases days spent in permanent housing, reduces time spent in shelter or on the streets, and can decrease jail days after one year in housing. There is a less established evidence base on health outcomes or outcomes from supportive housing over longer periods of time. Multiple meta-analysis studies have been done on supportive housing and its impact on a variety of outcomes.

After stakeholders have identified their target populations and potential intervention models, they should refine their interests and priorities to identify which outcomes they expect to address, including which outcomes they want to link to payments and which they might just monitor.

Nearly all existing PFS projects in the housing space track outcomes in addition to those linked to payments (table 2). Projects will refine target measures throughout the planning process based on available data, considerations for specific target populations, and the evidence base. Stakeholders can consider the following questions to help select payment measures and other outcomes of interest (adapted from Hawkins, Bieretz, and Brown 2019):

### Service Interventions in US Pay for Success Supportive Housing Interventions

<table>
<thead>
<tr>
<th>PFS project</th>
<th>Service intervention model and/or type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chronic Homelessness Pay for Success Initiative (Massachusetts)</td>
<td>Home and Healthy for Good Program</td>
</tr>
<tr>
<td>Denver Supportive Housing Social Impact Bond Initiative</td>
<td>Permanent supportive housing; Assertive Community Treatment</td>
</tr>
<tr>
<td>Los Angeles County Just in Reach Project</td>
<td>Permanent supportive housing</td>
</tr>
<tr>
<td>Partnering for Family Success Program (Cuyahoga County, OH)</td>
<td>Critical Time Intervention; Child Parent Psychotherapy; Trauma Adapted Family Connections</td>
</tr>
<tr>
<td>Project Welcome Home (Santa Clara County, CA)</td>
<td>Permanent supportive housing; Assertive Community Treatment</td>
</tr>
<tr>
<td>Salt Lake County’s Homes Not Jail Program</td>
<td>Homes Not Jail program: rapid rehousing</td>
</tr>
<tr>
<td>Salt Lake County’s REACH Program</td>
<td>Recovery, Engagement, Assessment, Career and Housing (REACH) program: Risk-Need-Responsivity model</td>
</tr>
</tbody>
</table>

- Do studies or evaluations exist of similar programs for similar populations?
  » If so, did the studies find that the intervention had a beneficial impact on the specific outcomes of interest?
  » If studies do not exist, can results be tracked but not linked to payment to further inform the evidence base?

- Do you have access to local data against which you can base outcome expectations?
  » For instance, practitioners need data on recidivism rates among different groups to set realistic targets for reduced recidivism. In selecting outcomes, governments should also consider whether past evaluations of the intervention can provide a baseline for those outcomes.
  » The capacity of local partners to deliver services and collect data at the same time is important to consider. If new data will need to be collected to track outcomes, stakeholders need to be mindful of any additional burdens placed on service providers.

- What outcomes are under the control of the service providers in your area and logically affected by the services delivered?
  » If supportive services, for example, involve both a case worker and health care provider, asking the health care provider for data on health-related outcomes (rather than the case worker) is likely appropriate.

Once stakeholders have a general list of potential outcomes, they can start selecting the ones that will be linked to payment.

Assessing the Value of Outcomes

Stakeholders often start considering the value of outcomes while selecting the intervention. Identifying cost drivers and estimating potential savings can be crucial in selecting the best intervention for the target population and potentially in appealing to end payors (see box 1, which describes PFS projects more broadly).

Any attempt at pricing should be informed by a solid understanding of the costs of serving the population, the costs of the proposed project, the financial constraints of the end payors and needs of the investors, and the potential quantifiable benefits of achieving the target outcomes (e.g., cashable cost savings). Upstream interventions that aim to lessen the need for expensive downstream emergency services may have a particularly positive benefit-cost potential.

For some projects, plausibly linking the intervention to the potential for net cost savings can be necessary to secure support. But for many reasons, calculating and verifying cashable cost savings for end payors from social interventions can be difficult. Cost benefits are often diffuse and hard to pinpoint. For example, marginal costs are distinct from fixed costs. Political and practical constraints may limit the ability to realize some cost savings, such as if a community should reduce staffing or if any
savings are redirected to support additional service delivery. Or there may be lags in when savings emerge, with high up-front costs weighed against longer-term net cost savings.

For those reasons, the PFS field has generally moved toward a more comprehensive approach that values projects for their potential to deliver both fiscal and nonfiscal benefits.

Such an approach leads stakeholders to ask the following questions (adapted from Dorn, Milner, and Eldridge 2017):

1. How much are policymakers willing to pay to achieve specified outcomes?
2. What are the public-sector cost savings the outcomes are likely to produce, and over what period will they be produced? In creating this estimate, partners should use a low end of possible savings based on the available research literature.
3. What is the project’s net cost (the gross project cost minus the near-term estimated savings the government agency will receive if the project meets its targets)?
4. Are the target outcomes worth the net cost to the end payor?
5. If performance exceeds expectations and saves additional money for the government, how much of those savings will policymakers share with the private investors who furnished up-front funding?

In addition to using cost information to inform outcome selection, stakeholders should be guided by the availability of data and data systems to actually track attainment of outcomes.

Finally, PFS projects may use different approaches to pricing outcomes but should all be guided by basic principles such as fairness and transparency. These principles are described further by Dorn, Milner, and Eldridge (2017).

Step 5: Pinpoint the Data to Track Outcomes

Data are critical at every stage of this process. They are needed to help map target populations, identify the service use and needs of those populations, and assess the value of desired outcomes. Once practitioners identify outcomes of interest, they will continue to rely on data to find indicators to track those outcomes. These indicators could be found in a combination of preexisting data sources (e.g., police data or hospital utilization data). They can also be found in new data sources that will be collected or developed through the project, such as service utilization information.

By the time the intervention is live and data are needed to track outcomes, some initial linking, sharing, and even analysis has likely already occurred. In the section on target populations, we discussed how linking data sources at the outset of the project is essential for understanding which systems your target population already interacts with.
Box 3 provides an example of how linking data was a critical early step in the Denver Supportive Housing Social Impact Bond. The intervention involved a variety of data partners working together and sharing data to ensure the project could successfully track outcomes.

### BOX 3
**Linking Data to Measure Outcomes in the Denver Supportive Housing Social Impact Bond**

The Denver Supportive Housing Social Impact Bond project (Denver SIB) launched in 2016 to provide permanent supportive housing and wrap-around services to 250 adults in the City of Denver.\(^a\) The target population had been arrested at least eight times over three years and identified as transient (having no address or providing the address of a shelter) at the time of an arrest.

**Target population identification.** Stakeholders used Denver Police Department data to locate individuals eligible for the Denver SIB and refer them to the program because the population was defined based on arrest history. The Denver Police Department generated a list of eligible participants and tracked daily which eligible individuals were continuing to show up in their system. They provided a de-identified version of this list, along with demographic information for each eligible individual, to the SIB’s primary evaluation partner, the Urban Institute. From there, the evaluation team at the Urban Institute linked this data with information on the status of individuals’ felony charges from the Denver Department of Public Health & the Environment.

**Tracking outcomes through linked datasets.** To understand the outcomes that the Denver SIB has on jail-bed-day reduction, local partners share the following individual-level data sources with the Urban Institute’s evaluation team:

- All arrests for each treatment and control participant, including their booking start dates and booking end dates (data come from the Denver Sheriff’s Departments)
- Data on arrest histories, including types of arrests for the three years before referral into the Denver SIB program (data come from the Denver Police Department)
- Data on felony history and currently open felonies (data come from the Denver Public Health and Environment Office)
- Data on deaths for program participants, including date of death and reason for death (data comes from Denver Coroner’s Office)

Under the Denver SIB contract,\(^b\) housing stability outcomes were observed for the first 10 quarters of the project, from January 1, 2016, through June 30, 2018, for participants in supportive housing who met the payment requirement. One hundred thirty-six participants met the payment requirement (Cunningham et al. 2018), 122 of whom maintained their voucher for a full year and 14 who had a planned exit. This outcome calls for a payment of just over $837,600 from the City of Denver to project investors.

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\(^a\) "Denver Supportive Housing Social Impact Bond Initiative," Urban Institute, accessed September 26, 2019.

Linking data sources at the outset of the project is essential for understanding which systems your target population already interacts with. Further down the line, having readily available data makes tracking outcomes possible and makes programmatic analysis more straightforward and faster. Most PFS projects report and pay on interim outcomes. For example, a project might pay once housing stability has been achieved for 3 or 6 months if the full target is 12. These results can only be tracked and reported with high-quality, readily available data.

Even outside of payment time tables for PFS, data can help evaluators track other outcomes of interest and build an evidence base. For example, Project Welcome Home in Santa Clara County is tracking outcomes related to health care, social service, and criminal justice system use, but its repayment is linked only to stable tenancy. Lastly, outcomes data allow you to stress-test different implementation tactics and make midcourse corrections, leading to a stronger intervention.

**Step 6: Identify an Evaluator and End Payor**

In past projects, identifying an evaluator and end payor has sometimes coincided with other steps outlined in this brief. Indeed, in some cases, it is the end payor (government entity), that starts the process in the first place. But in other cases, data work must be done to see who has financial incentives to be involved. In any case, before a PFS supportive housing project can move into structuring and implementation, an evaluator and end payor must be identified. End payors are needed to finance projects, and the evaluator’s job is to measure outcomes or impacts and establish whether the project is meeting payment milestones.

It can be helpful to bring on an evaluation team early in the process to help troubleshoot ideas around data and outcomes and to work collaboratively in the planning stage of the project (Gillespie et al. 2016). Evaluation teams could consist of local researchers, such as area university partners or nonprofit evaluation centers. Alternatively, they could be national partners, such as research centers focused on homelessness, academics, or think tanks.

The decisions you make during steps one through four will influence methodological decisions made down the road, so bringing an evaluator on early is useful. Randomized controlled trial designs are the primary form of evaluation for PFS interventions. People who need services are referred to either the treatment or a control group, and the two groups’ trajectories are compared to one another to assess the impact of the program on outcomes. Other PFS projects have taken nonexperimental or quasi-experimental approaches to their evaluations, looking at results for the same group of people before and after they received supportive housing.

Also, if the end payor is not already involved in the feasibility stage of the project, including them in these conversations will be helpful. Although most of the activities discussed in this brief happen during the feasibility phase, they will be tested, sharpened, and adapted during the structuring phase as negotiations occur with investors. Having the end payor be a key partner in defining the target population, data sources, and outcomes in the project will smooth the structuring phase of the project.
Conclusion

This brief provides some guidance on how to get a PFS supportive housing project started. Following the steps and recommendations outlined in this report can strengthen a community’s planning process. They don’t include everything required to set up a supportive housing intervention or PFS project and are not intended to be linear in all cases. The additional resources provided in this PFS-AD series can help provide a more general set of recommendations for those considering PFS by addressing topics like collaborative planning teams, data landscaping, feasibility studies, and lessons learned from early projects. More information on PFS and housing interventions can be found on the Pay for Success Initiative website.9

Notes

1 For more information on the range of performance based strategies available, see Brown, Eldridge, and Bieretz (2019).

2 For more on this, see “Developing a Collaborative Planning Team: Steps for Managing Data Sharing” from this series (Fedorowicz and Engelhardt 2019).

3 For more information on how to set up such a planning team, see “Developing a Collaborative Planning Team: Steps for Managing Data Sharing” from this series (Fedorowicz and Engelhardt 2019).


5 Though this brief does not provide a literature scan of supportive housing, if you are considering a range of potential outcomes, resources include the National Academy of Sciences 2018 Consensus Study Report (National Academies of Sciences, Engineering, and Medicine 2018), and the American Psychiatric Association’s 2014 assessment (Rog et al. 2014).

6 Given the complexity of PFS contracts, it is generally recommended to select only a few outcomes (e.g., one to three) that are linked to outcomes.


8 For more information on evaluation designs, see “An Introduction to Evaluation Designs in Pay for Success Projects” (Walsh et al. 2016).


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