

Using pay-for-success financing for supportive housing interventions: Promise & challenges

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abstract

Pay for success (PFS) is an emerging public–private partnership strategy for providing housing to chronically homeless individuals, people with mental or behavioral disorders, and adults recently released from prison. Socially minded private investors from both for-profit and nonprofit organizations provide the up-front funding for the projects. If an independent evaluation demonstrates that the intervention achieved predetermined metrics of success—such as decreasing the number of days children spend in foster care or increasing the number of people with stable housing—the public sector then “pays for success” by repaying the private investors, sometimes with interest. In this article, we describe seven ongoing PFS housing projects in the United States. Most are “housing first” interventions that provide permanent supportive housing to a chronically homeless population without setting any preconditions, such as sobriety. As projects are completed, analyses of the results should provide further insights into the complexities of designing behavioral-based PFS housing programs.

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Core Findings

What is the issue?

Pay for success (PFS), or social impact bonds, are an innovative way to improve social outcomes in high-risk communities. Private sector financing is used to implement proven interventions and services, which is repaid by the public sector only when contractual targets for desired outcomes have been met. The early results from seven PFS projects that provide supportive housing for chronically homeless people are promising illustrations of the PFS financing model.

How can you act?

Selected recommendations include:

- 1) Building interest and capacity across local and state government agencies to coordinate PFS project buy-in, oversight, and measurement
- 2) Incentivizing private partners to reinvest success payments back into the PFS project

Who should take the lead?

Advocates, policymakers, government officials, private investors and stakeholders in housing and health

Safe and affordable housing is important for the health and well-being of individuals and communities. Unaffordable housing puts significant economic pressure on individuals and families, forcing them to make stressful trade-offs between, for example, paying rent and buying food, paying utilities, or making investments in their children. Unaffordable housing also leads to eviction and homelessness. A strong body of social science and epidemiological research has demonstrated the positive health effects of housing interventions targeting low-income and vulnerable groups, including the chronically homeless, individuals with mental and behavioral health disorders, and adults recently released from prison.¹ Some of these interventions have also been shown to reduce the amount of money the public sector spends on high-need populations (those who typically have multiple complex medical and social needs and a higher likelihood of chronic homelessness), primarily from reductions in expensive medical, emergency, and criminal justice services.²

An emerging funding strategy for social welfare interventions is called *pay for success* (PFS), in which governmental and socially minded private entities (for profit or nonprofit) partner to finance and implement such interventions. Metrics for success are laid out by contract in advance. The private investors initially pay for the program. Then, if a third-party evaluation demonstrates that an intervention has met the contractual criteria for success, the public sector “pays for success” by repaying the private investors, sometimes with interest.³ The first PFS project was implemented in 2010 in the United Kingdom to reduce criminal recidivism through social and behavioral case management services.⁴ Since then, more than 100 PFS projects (also known as *social impact bonds*) have been launched or are being planned worldwide.⁵

The PFS financing model is designed to address two well-known challenges in public administration. The first is government waste, real and perceived. The results-oriented PFS model can reduce inefficiencies and waste because public

funds are spent only if specific predetermined, contracted outcomes are achieved. PFS can be used to finance interventions and services that provide value to the public sector. PFS can also be used to conduct a proof-of-concept demonstration of a potentially cost-effective or cost-saving intervention, which in turn might convince government leaders to directly fund such a program in the future.⁶

Second, the PFS financing model addresses the difficulty of investing in preventive interventions with long-term impact when acute public needs urgently require funding. By using private sector capital for up-front financing, PFS allows governments to plan for potential future payouts that are based on the terms of a performance-based contract.⁷ This kind of funding is politically attractive to taxpayers—especially when the interventions are aimed at socially marginalized or perceived “undeserving” populations, such as the homeless—because public funds are not used unless the projects succeed.

PFS projects are challenging to establish and launch. In addition, most PFS projects worldwide are still in progress. As such, it is not yet possible to draw conclusions about the impact of PFS projects on social welfare. However, a comprehensive review of the 82 PFS projects launched globally through 2017 revealed that all of them addressed at least one social determinant of health, with the majority implementing educational, behavioral, and psychosocial interventions, including 21 aimed at housing.⁸ Through 2017, the PFS financing model garnered more than \$390,000,000 of private sector capital for the delivery and evaluation of social welfare interventions, primarily in underserved populations.⁵

In this article, we describe several PFS programs in the United States that focus on an intervention known as *permanent supportive housing*. We also examine the strengths and challenges of the PFS approach to supportive housing in an effort to glean insights into improving those and other PFS programs.

Permanent Supportive Housing Interventions Used in PFS Programs

Permanent supportive housing is a broad term used to describe certain housing interventions aimed at high-risk, high-need populations. These interventions provide long-term housing linked to support services, which are delivered on site or in the community and are meant to improve health and housing stability. Such supports typically include mental and behavioral health care, family interventions, social welfare services, and legal aid. For instance, a woman with a drug dependency problem could receive counseling and support on site and assistance in connecting with other medical and social services in the community. Extensive research has shown that permanent supportive housing can be a cost-saving intervention in high-need populations such as the chronically homeless or adults recently released from prison.⁹ These interventions are largely based on theory and research from the fields of health behavior change and social psychology.

Housing first is a specific type of permanent supportive housing program that connects individuals to long-term housing without any sort of precondition, such as sobriety or participation in treatment or services.¹⁰ In other words, the approach ensures that individuals have safe and reliable housing before they attempt to address their social or behavioral challenges. Research shows that supportive services are more effective when individuals choose to participate—as is more likely when no preconditions are set for the receipt of housing—rather than being required to do so.¹¹

Some housing first interventions use a *critical time intervention* (CTI) approach, in which individuals receive case management services to assist with the major adjustment that occurs during a move into community housing after being homeless or incarcerated. A social worker or other social services professional pulls together and manages a tailored set of services and resources to meet the individual's needs over time. By receiving support and continuity of care throughout the transition to

“permanent supportive housing can be a cost-saving intervention in high-need populations”

independent housing, vulnerable individuals should be better able to sustain housing in the long term.¹²

Another way housing first interventions incorporate supportive services is through *assertive community treatment* (ACT). This model of intensive case management includes 24-hour, seven-day-a-week access to individualized care and services. ACT provides intensive support services that are normally available only in inpatient treatment settings. ACT has a strong evidence base behind its ability to provide intensive case management, crisis intervention, substance use counseling, mental health treatment, and primary care referrals. Although originally developed to serve individuals with severe mental illness, ACT has been adapted for and evaluated in a variety of populations.¹³

The Analysis

We designed and implemented a PFS surveillance system in 2016, through which we continuously collect and analyze information on PFS projects that have been launched around the world. This information includes details about the design features, interventions (including the evidence base and relevance to population health), investors, governments involved, metrics of success, payout terms and other contractual elements, evaluation features, outcomes, and challenges.

We collect information only on projects that have officially launched (with a signed contract, secured funding, and actual service delivery) and those in which the back-end payer is a government entity. Although a number of other websites describe PFS activity, we go further

by using descriptive project data to follow the research, administrative, policy, and population impacts of PFS initiatives.¹⁴ In this article, we use our PFS surveillance data to describe key elements of the housing projects underway in the United States and to identify some of the strengths and challenges of using the PFS financing model for supportive housing interventions in low-income populations.

This second aspect of our article includes an assessment of whether PFS housing projects generally meet established criteria for using PFS programs to improve social welfare, such as having a strong evidence base behind the chosen interventions.¹⁵ Many resources, including the Urban Institute's Project Assessment Tool, provide guidance for developing successful PFS projects.¹⁶ Projects that are most likely to succeed should meet the following criteria:

- The intervention must address a problem of interest to the public sector.
- The intervention should have published evidence of effectiveness in a clearly identified population.
- The intervention should provide economic value to the public sector by being either cost-effective or cost saving.
- Outcomes must be clearly defined and measurable.
- Outcomes must be achievable in a reasonable time period.
- Outcomes must be achievable without significant administrative, political, or stakeholder challenges, such as objections from local leadership, project partners, or the community.¹⁵

Our description and analysis of PFS housing interventions should be useful for government leaders and socially minded investors who are exploring potential PFS initiatives in and beyond supportive housing.

PFS Supportive Housing Projects in the United States

As of May 1, 2018, 21 housing-related PFS projects have been launched globally, of which seven (33%) are in the United States.⁸ At least 11 additional PFS housing projects are in development in the United States, including projects funded through the U.S. Department of Housing and Urban Development's Pay for Success Permanent Supportive Housing Demonstration initiative.¹⁷ Next, we summarize the seven established PFS housing projects in the United States, providing a comparison of the major components of each contract in Table 1.

Partnering for Family Success, Cuyahoga County, Ohio. The Partnering for Family Success project aims to reduce the number of days in foster care for children whose caregivers are homeless.¹⁸ In 2014, the year this program launched, Cuyahoga County budgeted more than \$50 million for foster care.¹⁹ By providing homeless parents with stable housing, the county hopes to improve the well-being of homeless families while also saving money. In addition to a housing first intervention, clients receive CTI, trauma-adapted family connections, and child–parent psychotherapy, three psychosocial interventions aimed at improving relationships within families, taking into account the traumatic context of their current or past situations.^{20,21}

This project will serve 135 homeless families over a five-year period, with the aim of reducing foster care placement days by 25%. If that is achieved, investors will receive full repayment of their investment. If the target is exceeded, investors will be repaid with interest. Investors have stated that they plan to reinvest any success payments back into the program, which will provide long-term funding and sustainability.

Chronic Homelessness PFS Initiative, Massachusetts. To address the issue of homelessness and the costly use of public services, Massachusetts launched a PFS project in 2015 to deliver the Home & Healthy for Good (HHG) program to chronically homeless individuals.²² Using a housing first approach to address the high usage of emergency services by chronically

Table 1. Key components of initiatives related to pay-for-success supportive housing in the United States, May 2018

Variable	Project						
	Partnering for Family Success	Chronic Homelessness PFS Initiative	Project Welcome Home	Housing to Health	Homes Not Jail	REACH	Just in Reach
Government	Cuyahoga County, Ohio	Commonwealth of Massachusetts	Santa Clara County, California	Denver, Colorado	Salt Lake County, Utah	Salt Lake County, Utah	Los Angeles County, California
Duration	5 years	5 years	6 years	5 years	6 years	6 years	4 years
Total investment	\$4M	\$3.5M	\$6.9M	\$8.6M	\$5.3M	\$5.4M	\$10M
Investors	George Gund Foundation, Cleveland Foundation, Sisters of Charity Foundation of Cleveland, Laura and John Arnold Foundation, Reinvestment Fund, Nonprofit Finance Fund	Santander Bank, United Way of Massachusetts Bay and Merrimack Valley, Corporation for Supportive Housing	Reinvestment Fund, Corporation for Supportive Housing, Sobrato Family Foundation, California Endowment, Health Trust, James Irvine Foundation, Google.org	Northern Trust, Walton Family Foundation, Piton Foundation, Laura and John Arnold Foundation, Living Cities, Nonprofit Finance Fund	Northern Trust, Ally Bank, QBE Insurance, Reinvestment Fund, Sorenson Impact Foundation	Northern Trust, Ally Bank, QBE Insurance, Reinvestment Fund, Sorenson Impact Foundation	United Healthcare, Conrad N. Hilton Foundation
Service delivery organization(s)	FrontLine Service	Massachusetts Housing and Shelter Alliance	Adobe Services	Colorado Coalition for the Homeless, Mental Health Center of Denver, Colorado Access	The Road Home	First Step House	L.A. County Department of Health Services, Brilliant Corners
Other housing organizations	Enterprise Community Partners	N/A	N/A	Enterprise Community Partners, Corporation for Supportive Housing	N/A	N/A	Corporation for Supportive Housing
Intervention	Housing First, Critical Time Intervention, Trauma Adapted Family Connections, child-parent psychotherapy	Home & Healthy for Good, Housing First supportive housing	Housing First, Assertive Community Treatment	Housing First, Assertive Community Treatment	Rapid Re-Housing (Housing First supportive housing), trauma-informed care, motivational interviewing	Risk-Needs-Responsivity Model	Housing First supportive housing
Target population	Homeless caregivers with children in foster care	Chronically homeless	Chronically homeless	Chronically homeless	Chronically homeless with substance use disorders	Formerly incarcerated adults	Chronically homeless
Success metric(s)	Reduction in foster care days	12 months of continuous housing	3 months of continuous stable tenancy	365 total adjusted days in housing, reduction in jail bed days	Improvement in the number of months without being in jail or the shelter, graduation to permanent housing, substance abuse treatment enrollment, mental health treatment enrollment	Reduction in days incarcerated, reduction in statewide arrests, increase in employment, program engagement	6 months and 12 months in stable housing, reduction in arrests

homeless individuals with complex needs, HHG was created in 2006 to provide health, social, and behavioral support after individuals are placed into housing. Since its inception, HHG has assisted 973 formerly homeless individuals with permanent supportive housing in Massachusetts, resulting in an average annual savings of \$12,428 per tenant housed, according to a state Medicaid analysis.²³

The Chronic Homelessness PFS Initiative represents a scaling of the HHG services already delivered by the Massachusetts state government. Over the five-year PFS project period, supportive housing will be provided to approximately 800 chronically homeless individuals. Repayment to private investors depends on participants achieving housing stability for 12 months. If 80% of individuals meet this milestone, investors will receive full repayment of their principal investment from the state. If more than 80% of project participants achieve 12 months of continuous housing, investors will be repaid with interest. First-year outcomes revealed a housing retention rate of 92%, resulting in an interim repayment to investors (see Table 2 for additional reported results).

Project Welcome Home, Santa Clara County, California. Project Welcome Home was launched in 2015 to provide supportive housing to chronically homeless individuals living in Santa Clara County.²⁴ The project targets adults identified as high-cost users of county services like emergency care, inpatient care, and criminal

justice system resources. This project combines housing first and the ACT model of intensive case management to address a wide range of social and behavioral needs. Project Welcome Home will ultimately serve 150–200 chronically homeless individuals over the course of the six-year project. Success payments will initiate when a participant reaches a minimum of three months of continuous stable tenancy. The goal of Project Welcome Home is for 80% of participants to achieve 12 months of continuous tenancy.

Housing to Health, Denver, Colorado. The Denver Housing to Health initiative was launched in 2016 to address the high use of expensive city and county safety-net services by chronically homeless individuals.²⁵ Housing to Health is using a housing first approach to provide 250 residential units to chronically homeless individuals over the five-year project period. As in Project Welcome Home, service providers are using ACT intensive case management to provide supportive services to enrollees.

The Housing to Health initiative is being evaluated with respect to two outcomes: housing stability and jail days. Housing stability payments will be calculated on the basis of total adjusted days in housing for each individual who reaches a threshold of at least 365 days housed in the community. Jail reduction payments are based on the reduction of jail days in the intervention participants, with a minimum threshold of a greater than 20% reduction in jail days compared with a control group.

Table 2. Interim payout & results data from the Chronic Homelessness PFS Initiative in Massachusetts

Project Feature	Characteristic or result
Project launch date	June 2015
Total investment	\$2,500,000
Investors (amount invested)	Santander Bank (\$1,000,000) United Way of Massachusetts Bay and Merrimack Valley (\$1,000,000) Corporation for Supportive Housing (\$500,000)
First success payments to investors announced	February 2018
Participants housed (through 2/2018)	656
Participants meeting success metric (through 2/2108)	92% of participants remained permanently housed 1 year after placement
Success payments to investors (through 2/2018)	Santander Bank (\$102,200) United Way of Massachusetts Bay and Merrimack Valley (\$102,200) Corporation for Supportive Housing (\$51,000)

Homes Not Jail, Salt Lake County, Utah.

The Homes Not Jail project was launched in 2017 in Salt Lake County to serve persistently homeless adults with substance use disorders. Homes Not Jail uses a housing first intervention called *rapid rehousing* that provides individuals with fast-paced move-in support, rental assistance, peer support, and financial and case management services.²⁶ Homes Not Jail explicitly uses a harm-reduction approach, allowing participants who are currently struggling with substance abuse to obtain housing without any social or behavioral preconditions. Motivational interviewing and trauma-informed care are also used to help participants make positive behavioral and psychosocial changes. As with the other PFS housing interventions, service delivery partners provide comprehensive wraparound services to assist with lingering social issues, such as food insecurity and unemployment.

Over the six-year project period, Homes Not Jail will serve 315 persistently homeless individuals in Salt Lake County. Four outcomes will serve as measures of success: months without staying in a shelter or jail, mental health service participation, substance abuse service enrollment, and graduation to permanent supportive housing. Any significant improvement in the first three measures relative to a control group will result in a payment. Payment for graduating to permanent supportive housing is made for each participant who is living in permanent housing when discharged from the program. The project goals are a 30% improvement for participants in the number of months without a stay in jail or a shelter and 80% of participants graduating to permanent housing.

REACH, Salt Lake County, Utah. REACH (Recovery, Engagement, Assessment, Career, and Housing), launched in 2017, is a broad-based intervention tailored specifically to the needs of formerly incarcerated adult men who are currently under the supervision of Utah Adult Probation & Parole.^{26,27} The REACH program uses the risk–need–responsivity model, which takes into account the risk a person will reoffend and his other specific social, behavioral, psychosocial, and structural needs.²⁸ Participants

receive individualized services such as short-term housing, case management, substance abuse treatment, mental health services, and employment support.

REACH will eventually serve approximately 225 formerly incarcerated individuals over the six-year project. Success payments are determined on the basis of four outcomes among participants: reduction in the number of days incarcerated, reduction in the number of statewide arrests, improvement in the number of quarters of employment, and successful program engagement. Any significant improvement in the first three outcomes compared with a control group will result in success payments to investors.

Just in Reach, Los Angeles County, California.

Los Angeles County launched the Just in Reach PFS initiative in 2017 to reduce recidivism and end the cycle of homelessness among individuals with repeat county jail stays.²⁹ This housing first program links chronically homeless individuals to permanent supportive housing. Once participants enter stable housing, they are provided with social, behavioral, and health services, including mental health therapy, substance abuse treatment, employment services, connections to public benefits, and mentors. A 2008 demonstration project showed a significant decrease in the recidivism rate for program participants compared with the general jail population.³⁰

The Just in Reach PFS initiative aims to serve 300 homeless individuals who are currently in the county jail; have had prior jail stays; and have complex social or behavioral problems such as mental illness, substance use disorder, or posttraumatic stress disorder. The four-year project will make payments on the basis of housing retention and jail avoidance rates. Housing retention payments will be made for each participant who reaches six months and then 12 months in stable housing. The jail avoidance rate is based on the number of rearrests during the two years following entry into supportive housing, with success payments based on participants with two or fewer returns to jail in a two-year follow-up period.

\$390m

PFS capital raised through the private sector in 2017

25.6

Percentage of PFS projects worldwide aimed at housing through 2017

33%

Health Disparities
US share of global PFS projects launched in 2018

“Both nonprofit and for-profit investors have provided capital”

Summary. Although the seven PFS housing projects have differences, they all include the delivery of evidence-based interventions to marginalized or vulnerable groups with complex needs. With the exception of REACH in Salt Lake County, all the projects use a housing first approach combined with some variant of permanent or long-term supportive housing. They deliver a range of supportive services to address the complex psychosocial, behavioral, and medical needs of the target population. Both nonprofit and for-profit investors have provided capital, and key agencies and organizations in the field of housing, including the Corporation for Supportive Housing, the Reinvestment Fund, and Enterprise Community Partners, have been involved in many of the projects. Success payments to the private investors are contingent on some measure of sustained housing in all but two projects (Partnering for Family Success in Cuyahoga County and REACH in Salt Lake County).

The Big Picture

The PFS financing model is being used by governments and private entities to support the dissemination of evidence-based interventions. The projects described here provide models for how this public–private financing approach has been implemented in the important area of housing. Private nonprofit and for-profit investors have demonstrated interest in investing in evidence-based supportive housing interventions, bringing new sources of private revenue to address housing in high-risk, complex-need populations. Although PFS is in the early stages of development, evidence presented here and elsewhere suggests it holds promise as a way to finance housing, a critical component of health and social equity.¹⁴

Strengths. A clear strength of the seven PFS housing projects we have described is that they meet the minimum criteria for interventions appropriate for PFS, as described earlier.¹⁵ Not all launched PFS projects have met these criteria.

All the PFS housing projects to date in the United States address a problem of interest to the public sector by implementing cost-effective and perhaps even cost-saving interventions that have a strong research evidence base in the target populations. What is more, the project outcomes are clear, measurable, and achievable in a reasonable time period (four to six years) and do not appear to have serious stakeholder challenges. However, the administrative costs of these projects are currently not well understood. In addition, the final outcomes from these projects (including investor payouts) are not yet known. Only two projects thus far have resulted in interim payouts to investors. Nevertheless, these interventions, if implemented with fidelity to the intervention research literature, should be able to achieve their objectives.

It is important to note that in all seven PFS housing projects in the United States to date, the payouts are contractually based on the achievement of behavioral outcomes, such as stable housing, treatment enrollment, and lack of recidivism—not on evidence of public savings. This is a major strength of this approach for making social progress.

Challenges. Even though the research literature suggests that supportive housing interventions save money that is often spent on high-risk populations, there are significant administrative and legal challenges to explicitly capturing public savings. These include the “wrong pockets” problem, in which the savings from a PFS initiative accrue across multiple government agencies and their budgets, which makes it difficult to identify and capture savings for the purpose of repaying private investors. Furthermore, legal barriers can prohibit some government programs (such as the federal arm of Medicaid) from making success payments to private investors.¹⁴

Additional challenges can complicate growing or scaling up the PFS financing model for supportive housing. One is the need for the government to increase its interest and capacity for engaging in PFS activity, which is a unique type of results-driven contracting. Local and state governments need capacity in a number

of key areas—including leadership buy-in, procurement policies, contract management, and the data systems for measuring outcomes and cost-effectiveness.^{6,31}

Another challenge is that even though success payments do not depend on the government saving money, to be economically attractive for PFS financing, housing interventions must target individuals at the highest risk of needing expensive public services, such as chronically homeless populations with mental health, substance abuse, and other disabling problems. Although such individuals are in obvious need of supportive housing, this focus on those at highest risk is open to the criticism that such programs neglect individuals and families who are also in need of stable, affordable, and supportive housing but who are not high users of costly public services. As a public–private partnership financing model, however, PFS is best suited for interventions that provide significant economic efficiencies or savings to the public sector and thus are bound to target the outlying, highest need populations.

Third, given the challenges that local and state governments face in funding expensive interventions like permanent supportive housing, the long-term sustainability of these interventions depends on maintaining the enthusiasm of private and public sector participants. To sustain an intervention, either the investors must be willing to reinvest success payments back into the project or the public sector must itself take over the financing and oversight of the intervention. Although such interest is increasing among health care systems, Medicaid managed care organizations, public health agencies, and researchers, using Medicaid mechanisms to finance housing and other social and nonmedical interventions related to health can be problematic because of significant administrative obstacles.³²

Looking Ahead

In summary, despite the challenges, PFS remains an important way to finance housing interventions in populations that are high users of government programs and services. PFS

“A clear strength of the seven PFS housing projects . . . is that they meet the minimum criteria for interventions appropriate for PFS”

housing-related projects implemented to date provide excellent examples of how this financing model can enable the spread of evidence-based permanent supportive housing that improves housing stability and other outcomes. The long-term social, behavioral, and health impacts of the PFS housing projects that are underway are not yet known, but it does appear that PFS has opened the door for evidence-based program delivery to populations who may not otherwise be served via traditional funding mechanisms. Although the early results are promising, the final evaluations of these pioneering projects will more fully reveal the potential of PFS financing for behavioral-based supportive housing and other social welfare interventions in high-need populations.

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references

1. Gibson, M., Petticrew, M., Bambra, C., Sowden, A. J., Wright, K. E., & Whitehead, M. (2011). Housing and health inequalities: A synthesis of systematic reviews of interventions aimed at different pathways linking housing and health. *Health & Place*, 17, 175–184.
2. Ly, A., & Latimer, E. (2015). Housing First impact on costs and associated cost offsets: A review of the literature. *The Canadian Journal of Psychiatry*, 60, 475–487.
3. Galloway, I. (2014). Using pay-for-success to increase investment in the nonmedical determinants of health. *Health Affairs*, 33, 1897–1904.
4. Ministry of Justice. (2017). *Peterborough social impact bond: Background*. Retrieved from https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/633271/peterborough-social-impact-bond-background-information.pdf
5. Social Finance. (n.d.). Impact bond global database. Retrieved from <https://sibdatabase.socialfinance.org.uk/>
6. Whistler, C. (2017). The next phase of pay for success: Driving public sector outcomes. Retrieved from <https://www.thirdsectorcap.org/blog/the-next-phase-of-pay-for-success-driving-public-sector-outcomes/>
7. Carrillo, O. (2017). *Pay for success: Opportunities and challenges in housing and economic development*. Retrieved from http://www.jchs.harvard.edu/sites/default/files/carrillo_pay_for_success_gramlich_2017.pdf
8. Iovan, S., Lantz, P. M., & Shapiro, S. (2018). "Pay for success" projects: Financing interventions that address social determinants of health in 20 countries. *American Journal of Public Health*, 108, 1473–1477.
9. Office of the Assistant Secretary for Planning and Evaluation. (2014). 3.1. Permanent supportive housing and services for people experiencing chronic homelessness. In *A primer on using Medicaid for people experiencing chronic homelessness and tenants in permanent supportive housing*. Retrieved from <https://aspe.hhs.gov/report/primer-using-medicaid-people-experiencing-chronic-homelessness-and-tenants-permanent-supportive-housing>
10. HUD Exchange. (2014). *Housing First in permanent supportive housing*. Retrieved from <https://www.hudexchange.info/resources/documents/Housing-First-Permanent-Supportive-Housing-Brief.pdf>
11. National Alliance to End Homelessness. (2016). *Housing First*. Retrieved from <https://endhomelessness.org/resource/housing-first/>
12. Social Programs That Work. (2017). Evidence summary for the critical time intervention. Retrieved from <https://evidencebasedprograms.org/document/critical-time-intervention-evidence-summary/>
13. Phillips, S. D., Burns, B. J., Edgar, E. R., Mueser, K. T., Linkins, K. W., Rosenheck, R. A., . . . McDonel Herr, E. C. (2001). Moving assertive community treatment into standard practice. *Psychiatric Services*, 52, 771–779.
14. Lantz, P. M., Rosenbaum, S., Ku, L., & Iovan, S. (2016). Pay for success and population health: Early results from eleven projects reveal challenges and promise. *Health Affairs*, 35, 2053–2061.
15. Lantz, P. M., & Iovan, S. (2017, December 12). When does pay-for-success make sense? *Stanford Social Innovation Review*. Retrieved from https://ssir.org/articles/entry/when_does_pay_for_success_make_sense
16. Milner, J., Eldridge, M., Walsh, K., & Roman, J. K. (2016). *Pay for success project assessment tool*. Retrieved from https://www.urban.org/sites/default/files/publication/85391/pay-for-success-project-assessment-tool_1.pdf
17. U.S. Department of Housing and Urban Development. (2015). *Pay for Success Permanent Supportive Housing Demonstration* [Fact sheet]. Retrieved from <https://www.hudexchange.info/resources/documents/PFS-Demonstration-Fact-Sheet.pdf>
18. Enterprise Community Partners & Third Sector Capital Partners. (2016). *Developing the Cuyahoga Partnering for Family Success Program*. Retrieved from <https://www.thirdsectorcap.org/wp-content/uploads/2016/02/Final-Cuyahoga-Partnering-for-Family-Success-Program-Lessons-Learned-Report.pdf>
19. FitzGerald, E. (2013). *Cuyahoga County, Ohio 2014–2015 executive's recommended biennial budget*. Retrieved from http://council.cuyahogacounty.us/pdf_council/en-US/2014-2015Budget/2014-2015%20Recommended%20Budget_2.pdf
20. National Child Traumatic Stress Network. (2012). *TA-FC: Trauma adapted family connections* [Fact sheet]. Retrieved from https://www.nctsn.org/sites/default/files/interventions/tafc_fact_sheet.pdf
21. Bassuk, E. L., DeCandia, C. J., Tsertsvadze, A., & Richard, M. K. (2014). The effectiveness of housing interventions and housing and service interventions on ending family homelessness: A systematic review. *American Journal of Orthopsychiatry*, 84, 457–474.
22. Pulster, R. (2015). Massachusetts launches pay for success initiative to address chronic homelessness. Retrieved from <https://www.usich.gov/news/massachusetts-launches-pay-for-success-initiative-to-address-chronic-homele>
23. Massachusetts Housing and Shelter Alliance. (2018). *Permanent supportive housing: A solution-driven model. March 2018 Home & Healthy for Good progress report*. Retrieved from <https://www.mhsa.net/sites/default/files/March%202018%20HHG%20Report.pdf>
24. County of Santa Clara. (2017). *County of Santa Clara launches California's first "pay for success" project* [Press release]. Retrieved from <https://www.sccgov.org/sites/opa/nr/Pages/ProjectWelcomeHome.aspx>
25. Corporation for Supportive Housing. (2016). *Fact sheet: Denver social impact bond program to address homelessness*. Retrieved from <https://www.csh.org/wp-content/uploads/2011/12/Denver-SIB-FactSheet.pdf>
26. Salt Lake County Council. (2017). Pay for success reports: December 2017 update. Retrieved from <https://slco.org/council/pay-for-success-reports/>
27. Salt Lake County. (2016). *Fact sheet: Salt Lake County pay for success initiatives*. Retrieved from https://slco.org/uploadedFiles/depot/fMayor/mayor16/PFS_launch_Factsheet.pdf
28. Bonta, J., & Andrews, D. A. (2007). Risk-need-responsivity model for offender assessment and rehabilitation. *Rehabilitation*, 6, 1–22.
29. Corporation for Supportive Housing. (2017). "Just in Reach" supportive housing. Retrieved from <https://www.csh.org/2017/10/just-in-reach-supportive-housing/>

30. Los Angeles County Sheriff's Department, Community Transition Unit. (YEAR). Just in Reach (JIR) Services for Homeless Inmates. Retrieved from <http://www.naco.org/sites/default/files/documents/Session%204%20-%20Los%20Angeles%20County%20Sheriff's%20Department.pdf>
31. Harvard Kennedy School Government Performance Lab. (2016). *Results-driven contracting: An overview*. Retrieved from http://govlab.hks.harvard.edu/files/siblab/files/results-driven_contracting_an_overview_0.pdf
32. McGinnis, T., Bonney, J., & Chang, D. I. (2018). *Executive summary: Innovative Medicaid payment strategies for upstream prevention and population health*. Retrieved from <http://www.chcs.org/media/Innovative-Medicaid-Payment-Strategies-for-Upstream-Prevention-and-Population-Health.pdf>