# HUD SECTION 811 PRA

## Project Rental Assistance Program

# Phase II Evaluation Final Report

## Implementation and Short-Term Outcomes

U.S. Department of Housing and Urban Development | Office of Policy Development and Research

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U.S. Department of Housing and Urban Development

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## Disclaimer

The contents of this report are the views of the contractor and do not necessarily reflect the views or policies of the U.S. Department of Housing and Urban Development or the U.S. Government.

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# Executive Summary

The U.S. Department of Housing and Urban Development (HUD)'s Section 811 Project Rental Assistance (PRA) Program provides rental housing assistance to non-elderly people with disabilities. In this second phase of its evaluation of the PRA program, HUD sought to determine the impact of the program on residents' housing tenancy and use of home and community-based services, characteristics of properties and neighborhoods where assisted residents live, and residents' healthcare diagnoses and utilization. In order to assess the program's effectiveness, the study compared short-term outcomes of the PRA program against outcomes for residents in the Section 811 Capital Advance/Project Rental Assistance Contract program (referred to as PRAC in this report), outcomes for people with disabilities in other HUD rental assistance programs, and outcomes for a group of similar people who receive Medicaid but are not assisted by HUD programs.

The evaluation found that the PRA program assists people who are different from people with disabilities in HUD's other housing assistance programs in their demographic characteristics, the types and sizes of properties they live in, and the characteristics of the neighborhoods where they live. PRA residents have lower incomes, have more chronic and disabling conditions, and are more likely to have had long-term stays in inpatient settings. Looking at early outcomes for a sample of units in just six states, both housing unit and neighborhood quality are lower for PRA units than for PRAC units. PRA units have greater access to public transportation and are in neighborhoods with greater walkability, but PRA residents do not feel as safe in their neighborhoods.

PRA residents receive tenancy supports similar to PRAC residents, and healthcare utilization rates are similar for residents of the two programs. Utilization rates for long-term inpatient care are lower for PRA residents than for the comparison group that does not receive HUD assistance, and utilization rates for case management services are higher. Rates of healthcare utilization for PRA residents do not differ significantly from rates for residents of other HUD housing assistance programs.

Our assessment of the cost-effectiveness of PRA in relation to other HUD programs that assist people with disabilities found that rental subsidy costs are similar or lower than for other HUD programs but that program administrative costs are higher.

## The Section 811 Project Rental Assistance Program

Authorized by the **Frank Melville Supportive Housing Investment Act of 2010**,[1] the PRA program provides project-based rental assistance to extremely low income, non-elderly people with disabilities. The program responds to the goals of the Supreme Court's 1999 decision in Olmstead v. L.C.[2] to allow people with disabilities to live in the least restrictive settings possible that meet their needs and preferences. The PRA program is a joint initiative between HUD and the U.S. Department of Health and Human Services' (HHS) Centers for Medicare & Medicaid Services (CMS). **The goal of the PRA program is to expand access to high-quality, affordable housing and voluntary, community-based services to allow eligible people to live successfully in the community.** To assess the implementation and outcomes of the PRA approach, the Melville Act required an independent evaluation.

The PRA program was designed to respond to a number of policy priorities:

- To increase the supply of affordable housing for people with disabilities in a cost-effective way while continuing to serve households with extremely low incomes.
- To provide affordable, community-based housing options for people who might otherwise be, or be at risk of becoming, homeless or unnecessarily institutionalized. PRA residents must meet HUD eligibility requirements for age, income, and disability, and be eligible for Medicaid-funded or other home and community-based services (HCBS).
- To offer integrated housing settings where people with disabilities live in multifamily housing for people both with and without disabilities.
- To encourage collaborations between state housing and health agencies that result in long-term strategies for providing permanent, affordable housing options for people with disabilities and coordinated access to services.

To date, 27 state housing agencies are administering PRA grant programs and expect to provide rental assistance for an estimated 6,000 households. The housing agencies established interagency partnership agreements with state health agencies that administer community-based services funded through Medicaid.

[1] Frank Melville Supportive Housing Investment Act of 2010 § 42 U.S.C. 8013 (P.L. 111-374).

[2] Olmstead v. L.C. (98-536) 527 U.S.581 (1999).

## Evaluating the PRA Program

The PRA program differs from PRAC and other HUD programs that assist similar populations in a number of ways—in the way in which the housing is identified and brought into the program, in the type of rental assistance, in the program's cost structure, and in whether and how coordinated access to services is provided. These differences affect the experience of PRA residents, their housing location, access to services, and program costs.

**An initial, Phase I Evaluation[3] (2014–2016) examined the early implementation of the PRA program in 12 states**, as state housing agency grantees established agreements with property owners to lease units to PRA residents, determined outreach and eligibility procedures to identify eligible applicants, and began moving people into housing. Given the complexities of launching the new program and that many grantees identified most or all of their PRA units in properties under development, few applicants had been housed by the end of the Phase I evaluation.

**This Phase II Evaluation (2016–2019) assessed the ongoing PRA implementation experience as programs matured and the PRA program's outcomes and effectiveness in six states.** The selected states—California, Delaware, Louisiana, Maryland, Minnesota, and Washington—were chosen because they had housed the largest number of PRA residents by 2017 when the evaluation's research design was finalized.

The Phase II evaluation was designed to answer these questions:

- How do short-term impacts of the Section 811 PRA program compare to outcomes for comparison groups made up of similar people living in other settings?
- What is the relationship between PRA features and strategies and program results?
- What are the costs of the PRA program, and how do they compare to costs for other HUD programs serving similar populations?

To estimate PRA program impacts, the study team constructed four statistically matched comparison groups comprising people similar to PRA residents based on their demographic characteristics, chronic and disabling conditions, and healthcare utilization patterns prior to PRA program implementation. The comparison groups are drawn from non-elderly people with disabilities from the six study states in the following categories:

- Receiving assistance through HUD's Section 811 Capital Advance/Project Rental Assistance Contract **(PRAC)** program, which provides capital grants to develop housing exclusively for people with disabilities and project rental assistance for operational costs. Like PRA, PRAC owners must ensure resident access to services.
- Receiving assistance through HUD's Non-Elderly Disabled **(NED)** voucher program, which provides tenant-based rental assistance to non-elderly people with disabilities who may lease units of their choice that meet HUD's requirements.
- Receiving assistance through **(other HUD)** programs available to eligible low-income people with and without disabilities; this category includes Housing Choice Vouchers, public housing, and multifamily assisted housing.
- Receiving Medicaid but not living in HUD-assisted housing **(non-HUD)**.

The Phase II evaluation uses administrative data on individuals' demographic characteristics and healthcare utilization patterns, neighborhood characteristics, property characteristics for the PRA and PRAC programs, and costs associated with the PRA and other HUD programs. The study team also compares healthcare utilization for people in the non-HUD comparison group. Evaluators also reviewed program documents, interviewed PRA program administrators and other program partners, and surveyed a sample of approximately 400 residents living in PRA and PRAC properties.

## Key Findings from the Phase II Evaluation

### How PRA Residents Differ from Similar Residents Assisted by Other HUD Programs

In order to estimate short-term impacts, and to place our findings in context, we assessed the characteristics of PRA residents relative to people served in other HUD programs. This analysis uses 2015 Medicaid data within the six selected states.

- On average, PRA residents are younger and have lower incomes than non-elderly people with disabilities in other HUD programs.
- PRA residents are less likely to live in single-person households than PRAC residents, but more likely than residents in NED and the other HUD programs.
- A larger share of PRA residents is African-American, and a smaller share is non-Hispanic white or Hispanic than residents in the comparison groups.

[3] https://www.huduser.gov/portal/section-811-process-evaluation.html

- Based on 2015 Medicaid data, the prevalence of chronic and disabling conditions tended to be higher for PRA residents than for those in the comparison groups.
- Likewise, before being assisted by PRA, PRA residents tended to utilize healthcare services such as inpatient hospital services, emergency department services, and medical transportation *more often* than people in the comparison groups. They were also more likely to have a long-term stay in an institutional setting, such as a nursing facility, acute care hospital, or inpatient rehabilitation facility, than all comparison groups prior to receiving PRA assistance. This was expected, given that states often target PRA units to people leaving institutions.[4]

## How Short-Term Outcomes of the PRA Program Differ from Outcomes of the Study's Comparison Groups

These descriptive findings informed the statistical construction of the four comparison groups comprising people living in other settings who are similar in demographics and health characteristics to those assisted in the PRA program in the six study states. Constructing such comparison groups allows us to attribute outcomes for PRA residents to the PRA program, rather than to differences in the populations served.

### *Quality of Properties and Neighborhoods*

PRA units must be located in affordable housing developments built with other sources of capital funding, with no more than 25 percent of total units set aside for people with disabilities. The PRA program also has incentives for grantees to assist more households by subsidizing rents lower than HUD's Fair Market Rent (FMR) that is the basis for determining subsidy payments in the Housing Choice Voucher (HCV) and some other HUD programs. These requirements underscore the program's goals of housing people in mixed population properties, where both those with and without disabilities live, in a cost-effective, person-centered way.

We analyzed administrative data on PRA and PRAC properties and our survey of a sample of PRA and PRAC residents to determine if PRA units meet program goals and residents' needs and preferences. We found that PRA residents live in neighborhoods with higher poverty rates and lower levels of education and higher residential densities than similar people in other HUD programs (PRAC, NED, and other HUD). On average, PRA residents reported liking their buildings and neighborhoods and feeling safe where they live, but not to the same extent as PRAC residents do.

Key findings are:

- Units under contract for PRA (but not necessarily occupied by PRA residents yet) are heavily concentrated in larger, newer properties with more than 50 units, in either walk-up or elevator buildings. Most properties with PRA units under contract (85 percent) were built or rehabilitated since 2000. By comparison (and as limited by statute), nearly all PRAC residents live in smaller properties, generally with fewer than 25 units, and with a smaller share of newer properties (60 percent built since 2000).
- On average, PRA units make up 10 percent of total units in properties with units under contract, well below the 25 percent cap. While units set aside under other state or local programs count towards the cap, information on these units was not available to the study team. Units occupied by, but not set aside for, people with disabilities are not included in the cap. Anecdotally, we heard that some properties would exceed the cap if all of these units are included.
- Significantly more PRAC residents reported feeling safe in their buildings, 92 percent, compared to 77 percent of PRA residents. Slightly higher shares of PRAC residents (80 percent) report they like where they live than PRA residents (76 percent), but this difference is not statistically significant.
- Significantly fewer PRA residents (70 percent) reported their units are in excellent or good condition compared to PRAC residents (83 percent).
- We measured whether residents feel integrated in their community by asking whether they know other people in their buildings and in the neighborhood. PRA residents were significantly less likely than PRAC residents to report knowing people in their buildings (81 percent vs 93 percent) or in their neighborhoods (38 percent vs 65 percent).

We found a number of statistically significant differences between the neighborhoods where properties with PRA units are located and those where comparison group members live. On average, PRA residents live in neighborhoods with higher residential density (that is, buildings with 50 or more units) and lower rates of single-family owner-occupancy than the comparison groups. PRA residents live in neighborhoods with greater access to public transit and higher rates of "walkability" than the comparison groups, factors that could contribute to their quality of life and potentially to improved health.

[4] This result may also be partly due to inclusion criteria for the sample. A proportion of individuals in the PRAC, NED, and other HUD groups had moved into their residences prior to 2015 so were less likely to have used long-term inpatient care in 2015.

- Relative to the comparison groups, census data indicate PRA residents also live in neighborhoods where a significantly higher share of non-elderly adults (age 35 to 64) self-report a disability, lower shares of all adults have an Associate degree or higher, and more households have incomes below the poverty line. Further, PRA residents live in neighborhoods with statistically significant higher exposure to harmful environmental toxins, according to federal data from the Environmental Protection Agency (EPA).
- PRA residents are significantly less likely to report feeling safe in their neighborhoods (68 percent) compared to PRAC residents (87 percent). However, despite some potential challenges to their neighborhood environments, the majority (73 percent) of PRA residents report they like their neighborhoods. This percentage is less than the share of PRAC residents (84 percent) who express satisfaction with their neighborhoods, but this difference is not statistically significant. (The study did not conduct surveys of residents in other HUD programs, so their perception of their neighborhood is unknown.)

The analyses of property administrative data and of resident survey responses are not representative of all properties and neighborhoods where PRA residents will eventually live. The analyses represent only a subset of the units and households that will eventually be assisted by PRA. The properties represent less than half of the estimated PRA units the six study states plan to assist with their PRA programs.[5] Likewise, the resident survey responses represent the experience of a subset of PRA residents at an early point of their tenancy, and do not reflect the experience of all residents being assisted by PRA at the time or who will be assisted by PRA in the future.[6]

In addition, the evaluation's results only apply to the six states participating in the study and are not representative of the PRA program in all of the states that have PRA programs. The states were selected based on the implementation status of their programs after two years of grant funding, based on the number of PRA units leased in FY17. In many cases, the states that were able to implement their programs more quickly than others had prior experience with supportive housing programs or had previous state-level agency partnerships.

### *Access and Use of Community-Based Services and Tenancy Supports*

The PRA program requires residents be eligible for Medicaid-funded HCBS or similar state plan services to ensure that residents will have the supports they need to live successfully in the community. Medicaid can fund certain tenancy support services to help Medicaid beneficiaries find, apply for, move to, and remain stably housed in community-based housing, although the exact mix of services varies by state. It can also pay for other community-based services that ensure beneficiaries' health and well-being, such as personal care assistance, home healthcare, or transportation assistance. These services are intended to support residents' health status and successful community living experience. Community-based services are available under Medicaid waiver programs, state plan services, and community-funded providers. Not all PRA residents are necessarily eligible to receive all services available in their communities.

We surveyed PRA residents in the six study states about their use of and experience with the services they receive in their homes and their perceived quality of life and health status. We also surveyed similar residents in PRAC properties to see whether their experiences differed from PRA residents. In PRAC, the nonprofit sponsors that developed and operate PRAC housing are responsible for ensuring residents have the services and community supports they need to remain in their homes. Services in both programs are voluntary for residents. Results showed:

- The majority of PRA and PRAC residents report that the tenancy supports and other services they receive meet their needs. Significantly more PRA residents reported receiving help with their lease application to move into their apartment.
- Overall, both PRA and PRAC residents rated the quality of their services well, but some residents in both groups report gaps in services. Notably, among the one-quarter of each group who reported needing help with medications, 65 percent of PRA residents reported they had gone without medication because there was no one to help them, compared to 15 percent of PRAC residents, a statistically significant difference.
- PRA and PRAC residents report no statistically significant differences in healthcare services received, amount of care provided by friends and family, or quality of care received from caregivers.

[5] The analysis of characteristics of properties of PRA units is limited to 78 properties and with 632 PRA units under contract as of September 2018 and for which we have administrative data.

[6] The resident survey was conducted with 194 residents living in PRA units between January and May 2018.

- Most PRA and PRAC residents rate their quality of life and overall health as at least okay, but significantly more PRAC residents rate their quality of life and overall health as good or excellent than PRA residents.
- PRA and PRAC residents have similar rates of exits (about 20 percent a year), but PRA residents are more likely to leave for non-payment of rent than PRAC residents do.

*Healthcare Utilization of PRA Residents*

We found that, in less than one year after PRA residents moved into PRA units,

- PRA residents tended to use inpatient hospital, emergency department, medical transportation, and long-term inpatient services at lower rates than similar individuals in the comparison groups, but few of the differences were statistically significant.
- We did find statistically significant differences in healthcare utilization after receiving housing assistance between PRA residents and people not receiving HUD assistance: lower use of long-term inpatient care services and greater use of case management services. The absence of statistically significant differences among the HUD programs in utilization of health care services suggests that housing subsidies to help people with disabilities remain in community-based housing may matter more than the type of housing assistance. Because of small sample sizes and the short follow-up period, this inference should be viewed with caution, however.
- PRA residents were more likely to use personal care assistance or case management services, the study's proxies for Medicaid-funded HCBS. These differences may reflect greater access to or coordination of services, or a history of unmet needs prior to PRA tenancy.

This analysis provides early evidence that the PRA program might have a substantive long-term impact on healthcare utilization in a population with many unmet healthcare needs. There are caveats to drawing definitive conclusions, however. The PRA tenancy period in this evaluation was one year or less, and it is likely too short a period to detect or attribute significant changes in patterns of healthcare utilization to the PRA program, particularly in rare outcomes like transitions to long-term care institutions.

Additionally, while we estimate that between 20 and 40 percent of PRA residents and members of our comparison group are dual-enrolled in Medicaid and Medicare, we had access only to Medicaid data. Medicare is the primary payer for hospitalizations, physician services, post-acute care services, hospice care, and prescription drugs among dual-enrolled individuals. Medicaid only pays for specific services not covered by Medicare and sometimes covers the cost of premiums, deductibles, co-pays, or co-insurance (benefits vary across states). We cannot be certain that we captured services that were entirely paid by Medicare. Thus, it is likely we have underestimated healthcare utilization by PRA residents and the comparison groups. Moreover, PRA residents were less likely than the PRAC, NED, and other-HUD groups to be dual-enrolled, so we may have overestimated the impact of PRA on healthcare utilization during tenancy to some degree.

## Costs of PRA and Comparison to Other HUD Programs Serving Similar Populations

The PRA program leverages rental assistance in multifamily developments built with other capital funding sources such as the Low-Income Housing Tax Credit (LIHTC) program. To promote cost-effectiveness, the program seeks to maximize the number of units assisted at the lowest feasible per unit subsidy cost, while maintaining the long-term affordability requirements of the units. Additionally, PRA residents must have access to Medicaid-funded or state plan services that help them transition to and remain stably housed in community-based housing and ideally reduce use of costly long-term care and emergency department services.

To assess the PRA program's cost-effectiveness relative to other programs, we collected program documents and analyzed available administrative data on program costs for the PRA program and the comparison group programs that are assisted by HUD (PRAC, NED, other HUD programs). Specifically, we analyzed capital costs, rental subsidy costs, healthcare and disability-related services (paid or unpaid), and program administrative costs. The cost structures across programs are very different, the PRA program is still in the relatively early stages of implementation, and the cost data available to the study team are not complete across all the comparison groups, for all cost categories. The study also found that PRA residents in the study states had higher prevalence of chronic and disabling conditions and tended to use healthcare services at higher rates than individuals in the comparison groups.

Given these caveats, our preliminary findings are:

- Rental subsidy costs for PRA residents are higher than for PRAC residents, but lower than for NED and the other HUD-assisted housing programs. Per unit annual rental subsidies range from $6,841 for PRA units to $7,872 for NED vouchers.

- Estimated total housing costs (capital and rental subsidies) are $11,800 per unit, per year for PRA units, compared to between $12,000 and $13,000 per unit per year for PRAC units. The estimated annual cost of rental assistance in the PRA program is $6,941 while capital subsidy costs are estimated at $4,969 annually. (Capital subsidies are either unknown or not applicable for the other comparison groups.) In the PRA program, many capital costs are incurred by non-HUD programs such as the Low-Income Housing Tax Credit.
- Program administrative costs are much higher for the PRA program ($5,780 per unit, annually) compared to the comparison group costs of less than $1,000 per unit annually. Grantee costs represent just less than half (43 percent) of the administrative costs, state agency partner costs represent about 50 percent, and the cost to HUD represents about 7 percent. PRA costs may go down as the program matures and more residents are housed, potentially driving down per-unit costs.
- In all, total annual program costs are $17,577 per PRA unit compared to almost $14,000 for PRAC units.
- The annual estimated cost of healthcare and disability services for PRA residents is $51,179, slightly higher than for PRAC ($50,321), and substantially lower than for NED ($56,025). For residents of other HUD programs, the annual estimated healthcare and disability costs were much lower, $34,204.

## Strategies to Address Implementation Challenges

### *Identifying the Right Unit for the Right Person, at the Right Time, Continues to be the Central Challenge of the PRA Approach*

As documented by Phase I of the evaluation, the PRA program is challenging to implement. The program's administration and cost structure differ in a number of ways from HUD's other rental subsidy programs. In addition, grantees primarily target populations with extensive needs—those who have been living in or are at risk of admission to institutions, and those experiencing or at risk of homelessness. Finding and engaging eligible PRA applicants and matching them to available, appropriate units that meet their needs and preferences—where and when they are ready to move—is very challenging. States are working to meet these challenges in multiple ways.

### *Securing PRA Units under Contract*

As of September 2018, nationally PRA grantees and their partners have secured contracts for approximately 2,200 of the 6,000 units the program is expected to assist. The PRA program has successfully attracted owners willing to enter long-term rental assistance contracts, generally at rents below the program's limit set at HUD's Fair Market Rents. Roughly one-third of units committed to the program are under lease, although most residents had been housed less than one year at the time of this evaluation.

The majority of PRA residents report that they like where they live and feel safe in their neighborhoods, but a quarter of residents report concerns with property quality and safety. A fifth of PRA residents report unresolved maintenance issues. PRA residents are less likely to report that they feel safe in their building or neighborhood compared to PRAC residents. While PRA units are located in neighborhoods with higher rates of walkability and access to public transportation than most of the comparison groups, PRA units are located in census tracts with higher concentrations of poverty, lower levels of education, and lower levels of owner-occupied housing. PRA residents also live in neighborhoods with higher exposure to harmful environmental toxins. Several grantees have sought waivers to increase targeted rents, given the challenges of attracting units with modest rents. If granted, higher rents may attract more owner interest and give PRA residents more choices of units and neighborhoods.

### *Identifying and Selecting the PRA Target Populations*

PRA grantees and their partners are successfully housing the vulnerable groups that grantees target. In the six study states, about half of the 1,459 planned units are occupied. Almost half of PRA residents were previously living in institutions (27 percent) or experiencing homelessness (20 percent) before moving to a PRA unit. PRA residents to date have histories of high rates of chronic and disabling conditions and higher rates of healthcare utilization than people in HUD's other assistance programs that serve non-elderly people with disabilities.

While the PRA program is reaching and engaging applicants, ineligibility continues to be an issue. Many applicants do not meet PRA program requirements for income or Medicaid eligibility. Even those who do may not meet the leasing requirements (for example, credit and criminal records checks) at the property where they wish to live. Grantees have greater success reaching these populations and clarifying eligibility when outreach strategies are tailored to the needs and current

(pre-PRA) living situations of each group. Finding effective, efficient ways to manage eligibility determination and waiting lists also facilitates timelier housing placement, as do strategies to work with property owners to mitigate concerns about poor credit or criminal histories.

*Achieving Stable Housing and Access to Community-based Services*

PRA residents should have access to the community-based services they need to ensure they can remain in their homes as long as they like and to promote positive health outcomes. Given the short tenure of most PRA residents, we cannot say definitively that these goals are being reached, but early evidence indicates that PRA residents use fewer high-cost healthcare services after they are housed than they did in the pre-occupancy period or relative to similar populations living in other housing settings. This provides early evidence that positive outcomes may be observed in the future.

*Sustaining PRA Partnerships to Ensure Effective Ongoing Implementation of the PRA Program*

The ultimate goal of the PRA program is to create institutional knowledge and capacity within states to further expand the availability of supportive housing for people with disabilities. At the core of this effort are sustainable partnerships between health and housing agencies that can bring together their respective resources and expertise. These partnerships grow over time, and many have their antecedents in previous state or CMS initiatives.

The grantees we evaluated see their partnerships as successful and offer insight into strategies to forming and deepening them. These include regular meetings and communication, recognizing and valuing the expertise of each partner, and automating or documenting key knowledge and functions so they are not lost when individual staff move on. As documented in the cost analysis for this study, however, the intensity of this effort contributes to relatively high PRA program administrative costs compared to other HUD programs.

## Policy Implications for State and Federal Stakeholders

Based on the results of this study, we see early evidence that the PRA program is achieving its aims. Grantees are moving eligible households to community-based housing, and early outcomes appear promising. The research raises several policy implications and suggestions for further inquiry.

Going forward, HUD should **continue to monitor tenancy outcomes in program tenure, unmet support needs, and reasons for program exits**. Grantees and their state partners may also want to monitor differences in tenancy outcomes by target population to see if some populations are more successfully maintaining community-based housing than others. Results after less than one year in housing appear promising but may not be definitive. The ongoing study is challenging, given how complicated and costly it is to acquire and match HUD and Medicaid data. We encourage HUD and CMS to **pursue opportunities to streamline data sharing** in ways that protect individual privacy and support rigorous research. In addition to pursuing opportunities to share data among federal agencies, HUD and CMS should explore similar opportunities to share data with state housing or Medicaid agencies. Such partnerships could include technical assistance for state agencies in linking and interpreting data.

It is not clear that PRA grantees will be able to continue securing high-quality units at rents below FMR, especially in high-cost areas. Overall PRA residents report a positive experience with their housing and neighborhoods but not to the same degree as PRAC residents. HUD should **exercise flexibility in working with grantees who seek waivers to increase rents to FMR**. This strategy potentially has dual benefits. It should help attract owners with high-quality housing and provide more housing choices to PRA applicants. It will have cost implications however, as average per-unit costs may increase. Incentives in future PRA grant Notices of Funding Availability (NOFAs) that promote locating units in higher quality neighborhoods, rather than incentives for setting contract rents lower than the maximum allowed, could be another tool to attract PRA units in neighborhoods PRA residents perceive as safe. As could strengthening inspections requirements for units placed under contract for PRA.

PRA partnerships between state housing and health agencies have the potential to help break down silos across systems that have traditionally not been well-coordinated, but program administrators report that they are time-consuming and costly. Costs may go down in the longer term, but HUD and CMS should continue to **support technical assistance** to grantees and their partners to build capacity, share information and tools across grantees, and institutionalize knowledge so that staff turnover is less disruptive.

HUD should **explore how the PRA cap of 25 percent units set aside for people with disabilities interacts with state incentives and property owner experience**. PRA grantee reporting indicates that PRA units total just 10 percent of all units in developments with units

under contract, well below the 25-percent limit. However, some state affordable housing strategies (notably through states' Low-Income Housing Tax Credit program allocation processes) provide incentives for higher set-asides of housing for people with disabilities that may conflict with the PRA cap. Further, anecdotally we heard that some developments have additional people with disabilities living in their properties who are not in set-aside units.

What the "right" set-aside level should be to ensure community-integrated housing is difficult to assess. If states reduce incentives in other programs to set aside units for people with disabilities to align with the PRA program's caps, it may reduce the overall expansion of the supply of units for this population. HUD should work with states to explore how their incentive structures affect the shared federal-state goals of expanding housing opportunities for people with disabilities while permitting them to live in integrated settings.

While the short observation period for PRA-supported residency limits our ability to draw definitive policy implications regarding healthcare impacts, we did observe some differences in service utilization over the short term that could translate into long-term trends. People with disabilities in our study groups who were receiving housing assistance through HUD had lower rates of institutional care than those not supported by HUD programs. Community-based supports such as use of personal care attendants, are on average less costly than institutional care and can contribute to improved health status and reduction in unplanned and emergency care. CMS should continue to **work with states to support provision of HCBS, through Medicaid or other state funding sources, coupled with housing supports, to assist people with disabilities to live independently and promote more cost-effective utilization of healthcare services**.

# About the PRA Program Evaluation and This Report

The Department of Housing and Urban Development (HUD) supports affordable housing opportunities for people with disabilities through several housing assistance programs. Since 1991, the **Section 811 Supportive Housing for Persons with Disabilities Program** has been the primary source of new housing developed exclusively for non-elderly people with disabilities. The Section 811 supportive housing model provides residents affordable housing and access to appropriate, voluntary supportive services. Since the Section 811 program's inception, the Section 811 Capital Advance and the Project Rental Assistant Contract (PRAC) program has provided interest-free capital grants and operating subsidies to nonprofit housing sponsors to develop and operate properties that exclusively house very low-income people with disabilities. The PRAC program assists approximately 34,000 people living in group homes, small multifamily properties, or condominiums.

In 2010, the **Frank Melville Supportive Housing Investment Act of 2010** authorized the Section 811 Project Rental Assistance (PRA) program, providing an alternative approach to providing permanent supportive housing for non-elderly persons with disabilities. The PRA program is a joint initiative between HUD and the U.S. Department of Health and Human Services (HHS) Centers for Medicare & Medicaid Services (CMS).

The PRAC and PRA programs both assist low income, non-elderly people with disabilities, but the PRA program differs from the PRAC program in important ways:

- While PRAC offers capital grants, the PRA program provides project-based rental assistance only for units in affordable housing developments built with other federal or state funding, such as Low-Income Housing Tax Credits (LIHTC).
- While PRAC relies on nonprofit sponsors to develop and operate the housing, PRA grants are awarded to state housing agencies that must partner with state health agencies to ensure access to services and supports.
- Those receiving PRA assistance must be eligible for Medicaid-funded home and community-based services (HCBS) or similar state plan services. HCBS provide opportunities for Medicaid beneficiaries with a wide range of disabilities to receive services in their own home or community rather than institutions or other isolated settings. Nonprofit owners of PRAC housing ensure that residents have access to voluntary, community-based services.
- While PRAC funds primarily developments exclusively for people with disabilities, PRA subsidies may be used only in developments where no more than 25 percent of units are set aside for people with disabilities.
- PRA households must have extremely low household incomes, with no more than 30 percent of Area Median Income (AMI), while PRAC households can have up to 50 percent of AMI.

The PRA program was designed to respond to a number of policy priorities:

- To increase the supply of affordable housing for people with disabilities in a cost-effective way, while continuing to serve households with extremely low incomes.
- To provide affordable, community-based housing options for people who might otherwise be, or be at risk of becoming, homeless or unnecessarily institutionalized.
- To offer integrated housing settings where people with disabilities live in multifamily housing that assists people both with and without disabilities.
- To encourage collaboration between state housing and health agencies that results in long-term strategies for providing permanent, affordable housing options for people with disabilities and structured access to services.

The Melville Act required an evaluation of this new approach to providing housing and services for non-elderly people with disabilities. This chapter provides background on the PRA program's requirements and the status of program implementation. It then describes HUD's multi-phase evaluation strategy and provides details on the Phase II evaluation design upon which this report is based. The chapter's last section provides an overview of the remainder of this Final Report.

## 1.1 Section 811 PRA Grant Requirements

The Melville Act that authorized the Section 811 PRA program established requirements for properties that accept PRA subsidies and for residents to be eligible to live in them. HUD developed additional program

requirements. Section 811 PRA program funds are awarded in grant competitions, announced by federal NOFAs. There have been two PRA funding rounds to date: a first round for Fiscal Year 2012 (FY12) in February 2013, and a second round for Fiscal Years 2013 and 2014 in March 2015 (FY13).

The NOFAs specify program requirements for grant applicants, grantees, properties and property owners, and residents. Key requirements are summarized in the text box on the next page.

## 1.2 National Status of PRA Program Implementation

**Congress has approved funding for two rounds of Section 811 PRA program grants, expected to assist approximately 6,000 households.** The Melville Act authorized up to $300 million in PRA funds to be awarded between fiscal years 2011 and 2015. HUD awarded a demonstration round of grants to 13 state housing agencies for FY12 in February 2013 and awarded a second round of grants for FY13 in March 2015. Across the two funding rounds, HUD awarded funding to 30 state housing agencies.

Of the awardees, 27 states had begun PRA programs as of September 2018.[7] The 27 grantees entered into Cooperative Agreements with HUD for a combined $229 million: $88 million in FY12 grant funds and $141 million in FY13 funds. The FY12 grants will subsidize an estimated 2,283 units, and the FY 13 grants are expected to subsidize 3,772 units.[8] The FY12 grants must be disbursed by September 30, 2025; the FY13 grants must be disbursed by September 30, 2026.

### Status of PRA Grants as of September 2018

**Nationally, 75 percent of the FY12 units are under contract with owners for PRA.** PRA grantees are making progress in attracting owners to the program and securing agreements for units to be subsidized by PRA. The FY12 grantees had contracts in place with property owners for an estimated 1,718 PRA units, or 75 percent of the units' grantees planned for in their Cooperative Agreements with HUD. The FY13 grantees had entered into contracts with owners for an estimated 516 PRA units, or 13 percent of the units planned.

**Grantees funded in FY12 are leasing a third of their awarded PRA units.** A total of 945 households were living in PRA-subsidized units as of September 2018, making up 34 percent of FY12 units. FY13 grantees have leased 4 percent of their planned units. Two-thirds of all PRA residents nationally have been assisted by PRA for less than a year.

**At the time they moved into FY12 grantee units, nearly one-third of households (32 percent) had been living in institutions, and nearly one-fourth were experiencing homelessness (23 percent) directly prior to being assisted by PRA.** Six percent of residents moved from group homes, adult care homes, or other residential settings for people with disabilities. Six percent moved other types of housing such as living on their own or with roommates in the community or living with family. Of households that moved into FY13 grant units, nearly one-fourth had been institutionalized (24 percent), and more than one-fifth were experiencing homelessness (21 percent).

Demand for PRA units exceeds supply. As a result, many of the state PRA programs maintain waiting lists of potential PRA applicants. **As of September 30, 2018, grantees in the 27 participating states reported 5,991 applicants on their waiting lists for units available from FY12 grants and 3,302 applicants for units from FY13 grants.**

Nationally, 1,229 households have moved into PRA units since the PRA program began in 2015. **Cumulatively, approximately 20 percent of PRA households (217) have exited the PRA program over that period.** Approximately one-third of these exits were owner-initiated (32 percent): 8 percent for nonpayment of rent and 24 percent for other reasons not specified. Another third of exits were initiated by tenants: 25 percent left for other housing, and 9 percent left for other reasons. An additional 18 percent of residents died, 8 percent moved back into institutional care, and 9 percent left for other or unknown reasons or moved out without giving notice.

## 1.3 The Evaluation of the Section 811 PRA Program

The PRA program represents a new model for providing affordable housing and access to community-based supportive services for non-elderly people with disabilities. The model offers considerable flexibility to states to select target populations, housing types and locations, and service strategies that reflect available resources, address state policy priorities, and meet potential PRA residents' needs and preferences. It is not clear whether

[7] State housing agencies in three states that were awarded PRA grants in FY12 and FY13 chose not to participate in the program: North Carolina (FY12), the District of Columbia (FY13), and Kentucky (FY13).

[8] The estimate is based on the grantee's projections about rent levels and subsidies for PRA units. The actual number of households will depend on actual rents and subsidies.

## Section 811 Project Rental Assistance Program Requirements

### State Agency Partnerships

A partnership agreement between the state housing agency and state Medicaid and/or HHS agency is required as part of the application for PRA grant funds. The agreement outlines the state housing agency's commitment to administering the rental subsidy program and the health agency's commitment to identifying and conducting outreach to the target population(s) to be served by the state's PRA program, as well as ensuring that residents are connected to appropriate, voluntary supportive services.

### Eligibility of Properties for Rental Assistance

The state housing agency grantees select properties to receive PRA subsidies. Eligible properties can be new or existing multifamily developments in which the development costs are subsidized by other sources. These sources include LIHTC, HUD's HOME and Community Development Block Grant (CDBG) programs, and other federal, state, or private sources.

### Rental Assistance Contract Requirements

Property owners must agree to a 30-year use restriction for providing a specified number of units for PRA. Owners must execute a Rental Assistance Contract (RAC) with the state housing agency for at least 20 years. (Both are contingent on continued Section 811 appropriations.) To ensure that community integration goals are achieved under the Section 811 PRA program, the Section 811 statute specifies that no more than 25 percent of the units in the affordable housing development can be set aside for supportive housing or have an occupancy preference for people with disabilities. PRA units should also be dispersed throughout the property and not segregated to one area of a property.

### Section 811 PRA Rents

Grantees determine the maximum rents that property owners may charge for PRA units. PRA rents may not exceed the applicable FMR or small area FMR level for the location of the property unless supported by a market study. The FY12 and FY13 grant competitions included incentives for grantees to commit to PRA rents even lower than FMR.

### Resident Eligibility for PRA

PRA funds may only be provided for units for households with at least one person with a disability who is between the ages of 18 and 61 at the time the person is first assisted by PRA subsidies. PRA residents must also be eligible for home and community-based services funded under Medicaid waivers, Medicaid state plan options, or other comparable programs. Households assisted by PRA must have extremely low household income (no more than 30 percent of AMI).

### Resident Contribution to Rent

Similar to households in other HUD rental subsidy programs, residents living in PRA units pay rent based on their incomes. Total tenant payment (rent and utilities) is calculated as the greatest of 30 percent of adjusted monthly income, 10 percent of monthly gross income, or a state-determined minimum welfare rent.

the PRA approach will be an improvement on the PRAC approach or on other HUD programs that provide housing for people with disabilities. To help answer this question, the Melville Act that authorized the PRA program also required an evaluation of the program's effectiveness. In response, HUD has undertaken a multi-phase evaluation to learn how this new model is implemented and what the outcomes are for PRA-assisted households.

### Phase I Evaluation (2014-2016)

An initial, ***Section 811 PRA Phase I Evaluation*** assessed the early implementation of the PRA program in the first 12 states to receive PRA grants.[9] Covering the period between October 2014 and June 2016, the evaluation documented how state housing and health agencies and their partners developed outreach and referral procedures to identify eligible applicants for PRA units and how they identified and contracted with property owners to lease units to PRA applicants. The Phase I evaluation report assessed the early implementation experience. Given delays in program implementation and challenges with identifying units that met the requirements of the PRA program, however, very few PRA residents were housed by the end of the Phase I study. It was thus too early to evaluate the effects of the program on residents.

### Phase II Evaluation (2016-2019)

This report is the result of the ***Section 811 PRA Phase II Evaluation***, based on research conducted between 2016 and 2019. The Phase II evaluation addresses questions about the PRA program's outcomes and effectiveness. It focuses on PRA programs in six states: California, Delaware, Louisiana, Maryland, Minnesota, and Washington. These states were selected because they housed the largest numbers of PRA residents when the study's research design was finalized in 2017, giving the evaluation the best chance to detect program outcomes for PRA residents. As of September 2018, when data collection for the Phase II evaluation closed, these six states were assisting more than 500 households, representing 62 percent of all PRA residents at the time.

## 1.4 The Phase II Evaluation Design

### Phase II Evaluation Objectives, Research Questions, and Data Sources

***The overarching goals of the Phase II Evaluation are to assess the outcomes and effectiveness of the PRA program and to compare the results to outcomes for similar populations living in other housing settings.*** The research objectives and research questions for the Phase II Evaluation and the data sources to address them are shown in Exhibit 1.1. The evaluation draws on a rich variety of data obtained from administrative sources as well as through in-person interviews with program administrators. In addition, the study team conducted more than 400 in-person surveys with PRA and PRAC residents to gain further insights into their program experiences and their self-reported quality of life and health status.

Exhibit 1.1: Evaluation Objectives, Research Questions, and Data Sources

| Research Questions | Objectives | Data Sources |
|---|---|---|
| How do short-term impacts of the Section 811 PRA program compare to outcomes for similar people served in other HUD housing programs? | Assess the effects of the PRA program on individuals' quality of life and care, housing and neighborhood, and utilization and access to health services and supports compared to similar people living in other settings. | • In-person surveys administered to PRA and PRAC residents<br>• Housing, healthcare utilization, and neighborhood administrative data from HUD, CMS, state Medicaid agencies, and publicly available federal datasets |
| What are costs of the PRA program and how do they compare to costs for other HUD programs serving similar populations? | Estimate the costs and cost effectiveness of providing housing and services to PRA program residents compared to the costs for similar populations assisted in other housing settings. | • PRA program documents and administrative data<br>• Document reviews and follow-up administrative interviews with staff from PRA grantees, state Medicaid agencies, and other PRA program partners<br>• Administrative data on housing and services costs from HUD and CMS, respectively |
| What is the relationship between PRA program features and strategies and program results? | Continue documenting the implementation of the PRA program in six study states, particularly how implementation strategies have changed as the programs have matured and how those strategies may contribute to program results. | • PRA program documents and administrative data<br>• Administrative interviews with HUD staff who administer the PRA program<br>• Administrative interviews with staff from PRA grantees, state Medicaid agencies, and other PRA program partners |

[9] https://www.huduser.gov/portal/section-811-process-evaluation.html

## The Evaluation's Comparison Groups

A key feature of the Phase II Evaluation's design is a comparison of participant characteristics and outcomes for non-elderly people with disabilities across a variety of housing settings. The study compares Section 811 PRA residents to four distinct comparison groups, for three purposes.

**First, the study examines descriptively how non-elderly people with disabilities across living situations are similar or different.** The study compares demographic and socioeconomic characteristics, health diagnoses and chronic conditions, and historical healthcare utilization patterns of PRA residents to non-elderly people with disabilities living in other settings. This helps answer the question, whom is the PRA program serving and how do they compare to people with disabilities living in other settings?

**Second, we use statistical techniques to compare outcomes for PRA residents to outcomes for similar people in other housing settings.** This helps answer the question, how would PRA residents have fared in other housing settings, in the absence of the PRA program?

**Third, the study explores the costs of administering housing and services through the PRA program and, to the extent data are available, how those costs compare to the costs of providing housing and services through other HUD capital or rental subsidy programs.** This analysis helps address questions about the PRA program's cost-effectiveness compared to other settings.

The evaluation's comparison groups were selected to represent a range of housing settings where non-elderly people with disabilities may live. Three groups are made up of people living in HUD-assisted housing. All of the HUD programs assist households with very low incomes (not more than 50 percent of AMI), but other program features vary across programs. The comparison groups and some of their important features are as follows. See Exhibit 1.2 for a comparative matrix of differences across the HUD programs.

### *Group 1: PRAC*

This group is made up of residents in HUD's Section 811 Project Rental Assistance Contract program. The PRAC program's eligibility requirements regarding age, disability, and income are broadly similar to those of the PRA program.[10] PRAC sponsors must make services available to meet tenants' physical health, mental health, and other needs for the duration of the 40-year capital advance period. PRAC sponsors must either provide services directly or partner and coordinate with service providers in the community. Like PRA, services are voluntary for residents. Unlike PRA, PRAC properties predominately house single individuals with disabilities. The cost structure of the PRAC program is also different in that sponsors receive interest-free capital grants and on-going operating subsidies to ensure affordability. The subsidy is, like PRA, project-based. That means residents who move may not take their subsidy with them.

### *Group 2: NED*

This group is made up of people assisted by HUD's Non-Elderly Disabled (NED) voucher program. These vouchers are administered by local public housing authorities (PHAs) and provide tenant-based subsidies to eligible applicants. NED voucher holders may rent a unit of their choice that meets HUD and the PHA's rent and housing quality guidelines. NED voucher holders who move may take their subsidy with them. The NED voucher is a housing subsidy only; HUD does not require a formal mechanism for ensuring voucher recipients' access to services. Some PHAs partner with service agencies to help NED voucher-holders access services.[11] There are no capital subsidies in the NED voucher program.

### *Group 3: Other HUD*

Unlike groups 1 and 2, this group is made up of non-elderly people with disabilities who are living in other HUD-assisted units that are not restricted to people with disabilities. These housing settings include the Housing Choice Voucher program (76 percent of residents in the other HUD group), public housing (22 percent), and other HUD multifamily programs (2 percent). These programs assist very low-income renters, including families, the elderly, and people with disabilities. As in PRA, PRAC, and NED, tenants' rent payments in these programs are generally limited to 30 percent of income. In most cases, there is no requirement to ensure access to services, although some public or multifamily developments may have service coordinators or may partner with service agencies to assist residents. Public housing is built with HUD capital subsidies and also receives an operating subsidy. There are no capital subsidies associated with the HCV. Like NED vouchers, HCV holders who move may take their subsidy with them.

[10] The PRAC program is restricted to households with very low incomes (earning no more than 50 percent of AMI) while the PRA program is restricted to households with extremely low household incomes (earning no more than 30 percent of AMI).

[11] NED Category 2 vouchers, a small percentage of NED vouchers, are targeted to people exiting institutions. PHAs applying for Category 2 vouchers must partner with a state Medicaid or health agency to apply for Category 2 vouchers.

*Group 4: Non-HUD*

Unlike groups 1 through 3, this group consists of people who are enrolled in Medicaid but who are not assisted in any of the HUD programs. The housing setting for this group is unknown, but may include people living in institutions, those living with family, those living independently in unsubsidized housing, or people experiencing homelessness. Because we do not know the housing setting for this group, we cannot assess their housing experiences (for example, costs, affordability relative to income, tenure, neighborhood quality, and so on), but we can compare their healthcare utilization characteristics and outcomes to the PRA group.

Exhibit 1.2: Summary of Program Features for HUD Comparison Programs

| Program Feature | PRA | PRAC | NED | Other HUD |
|---|---|---|---|---|
| Target population | Non-elderly people with disabilities; extremely low-income household | Non-elderly people with disabilities; very low-income household | Non-elderly people with disabilities | Families, elderly, non-elderly people with disabilities |
| Subsidy type | Project-based rental assistance | Project-based capital grants and operating subsidies | Tenant-based rental assistance | HCV: tenant-based rental assistance<br>Public housing: capital and operating subsidy<br>Multifamily: capital subsidy and/or project-based rental assistance |
| Program administrator | State housing agencies partnering with state health agencies | Non-profit sponsors | Local housing authorities | Local housing authorities or (for HUD multifamily) affordable housing owner/manager |
| Approach to supportive services | Coordination with state health agency to ensure access to HCBS | Property service plan describes how residents will be ensured access to services provided by the sponsor or partner providers | Housing subsidy only, housing authority may partner with service providers | HCV: no formal service strategy<br>Public/multifamily housing: PHA or property owner may partner with service providers or provide on-site service coordinators |
| Housing integration | Mixed population housing; not more than 25 percent of units set aside for people with disabilities | Housing exclusively for people with disabilities | Used in private rental housing, no restrictions regarding population type | HCV: Used in private rental housing, no restrictions regarding population type<br>Public/Multifamily: Mixed population housing |

## Limitations of the Evaluation's Design

The evaluation leverages a diverse set of data sources, including information collected directly from a wide range of program stakeholders, from state agency administrators to service providers and property managers to PRA subsidy recipients. There are, however, limitations to the analysis we were able to conduct:

- **Limited post-occupancy follow-up period for PRA residents.** The healthcare utilization and outcomes analysis relies on state Medicaid data to compare healthcare utilization before PRA residents moved into their PRA unit with their post-move-in experiences. The study attempted to collect post-occupancy healthcare utilization data for as many PRA residents as possible, for as long as possible after they moved into their units. Given lags in data availability and the relatively slow pace of PRA lease-ups, we only observe approximately 7 months of healthcare utilization after residents moved into their units. Results from this brief follow-up period may not reflect longer-term patterns that may be observed in the future.
- **Resident survey data limited to PRA and PRAC residents.** The evaluation budget did not permit surveys with residents from all of the comparison

groups. Priority was given to surveying PRA and PRAC residents.

- **No cost-effectiveness analysis for the non-HUD group.** As noted in the comparison group description, the non-HUD group is made up of a sample of Medicaid beneficiaries who are not receiving HUD assistance. The sample was drawn from Medicaid data, so the study can report on some demographic and health characteristics and on healthcare utilization and costs for this group. There is no information on housing costs for this group, which precluded a cost-effectiveness analysis for this comparison group.
- **Other data limitations.** The study drew on a variety of administrative data sources to produce the most complete and robust analyses possible, but some analyses were limited by incomplete or unavailable data for some comparison groups. These limitations are noted throughout the report.

## 1.5 Structure of This Report

Including this introductory chapter, this report consists of nine chapters, a conclusion, and several appendices:

- ***The second chapter: PRA Programs in the Six Study States*** presents an overview of the PRA programs in the six study states and an update of the progress made toward their PRA grants as of September 2018, the third full year of grant administration.
- ***The third chapter: Characteristics of PRA Residents and How They Differ from Comparison Groups*** presents descriptive data on who the PRA program serves and how PRA residents compare to non-elderly people with disabilities who are served by other HUD programs.
- ***The fourth through seventh chapters: Short-Term Outcomes of PRA Residents and How They Differ from Comparison Groups*** presents early evidence of how outcomes of the PRA program compare to outcomes of other HUD programs and housing situations for non-elderly people with disabilities. Outcomes are compared in three areas: neighborhood characteristics and resident satisfaction with their neighborhood, property characteristics and resident satisfaction with their property, home and community-based services and housing tenancy, and healthcare diagnoses and utilization.
- ***The eighth chapter: Costs of the PRA Program and How They Compare to Other HUD Programs*** discusses the housing, services, and program administrative costs of the PRA program, and how these costs are allocated among funding sources. To the extent that data are available, the section also assesses how cost-effective the PRA program compared to other HUD programs that serve similar populations.
- ***The ninth chapter: Relationship Between PRA Program Strategies and Program Results*** explores the relationship between elective features or strategies established by state PRA partnerships and the early results of the program. The section discusses how the selection and prioritization of state-selected PRA target population(s) affect whom the PRA program assists, and what strategies have been successful in reaching and referring eligible members of the states' target populations. The section also discusses how states have addressed challenges in getting high-quality, cost-effective units under contract for PRA, what strategies have been successful in matching applicants to units that meet their needs, and how states coordinate tenancy supports for PRA residents. Finally, the section discusses what strategies state agency staff report have been successful in building and maintaining effective, sustainable PRA partnerships.
- ***Conclusion: How Effective States Have Been in Meeting the Goals of the PRA Program*** brings together the results from the report's three main sections. The chapter offers a final assessment of how successful state agencies and their partners have been in meeting the goals of the PRA program, and how early outcomes of the PRA program compare to similar people not assisted by PRA.
- ***Appendices:*** The appendices include an update of all 27 PRA grant programs as of September 2018 (Appendix A) and a description of the study's data sources and methods (Appendix B).

# PRA Programs in the Six Study States

This evaluation focuses on PRA implementation and outcomes in 6 of the 27 states that are administering PRA grants: California, Delaware, Louisiana, Maryland, Minnesota, and Washington. This chapter describes the states' programs and their progress through September 2018, representing the first full 3 years of PRA implementation. This chapter provides a brief overview of the PRA program's design in the study states and the progress they made in implementing the program in their state as of September 2018.

HUD awarded $66.5 million in PRA grants to the state housing agencies in the six study states in the FY12 and FY13 funding rounds. As of September 2018, grantees in the six states had entered into agreements with property owners for more than half of the 1,373 units the PRA programs in those states expect to assist with their grants. Between 2015 and 2018, more than 700 households have been assisted by PRA in these states. In general, the Section 811 PRA programs are assisting people in two distinct, but potentially overlapping groups—people living in nursing facilities or other facilities with institutional levels of care and people experiencing or at risk for homelessness.

## 2.1 PRA Grants in the Study States

**HUD awarded $66.5 million in PRA grants to the state housing agencies in the six study states over two funding rounds.** For the FY12 round of funding, the PRA partnerships in the six states combined $44.7 million in grant funds for an estimated 948 PRA units (Exhibit 2.1). Three of the study states (California, Maryland, and Minnesota) also received PRA grants in FY13, the second year of funding, for an additional combined $25 million in grant funds. The two funding rounds are expected to assist an estimated 1,373 units of rental assistance—948 units for FY12 and 425 units for FY13. Each PRA "unit" represents 5 years of rental assistance.

Exhibit 2.1: PRA Grant Amounts and Planned Units in the Study States, by State and Grant Year

| | FY12 | | FY13 | |
|---|---|---|---|---|
| State | Grant Amount | Planned Units | Grant Amount | Planned Units |
| California | $11,870,256 | 233 | $11,985,436 | 200 |
| Delaware | $5,246,276 | 148 | | |
| Louisiana | $8,489,928 | 199 | | |
| Maryland | $10,917,383 | 150 | $9,808,054 | 150 |
| Minnesota | $3,085,500 | 85 | $3,000,000 | 75 |
| Washington | $5,739,717 | 133 | | |
| **Total** | **$45,348,060** | **948** | **$24,793,490** | **425** |

**Note: Planned units based on number in Cooperative Agreements with HUD as of September 2018.**

**Sources: "Section 811 Project Rental Assistance: Bringing Supportive Service Rental Housing to Scale. Status Report to Congress," April 2017, and data provided by HUD's Office of Multifamily Programs.**

## 2.2 State PRA Target Populations

Section 811 PRA rental subsidies are set aside for households that meet the program's requirements for age, household income, and eligibility for HCBS. Within these federal requirements, the PRA state agency partnerships have flexibility in determining which populations their PRA program will serve. PRA grantees identify target populations based on the unmet needs for people with disabilities and their states' policy priorities.

Some grantees view the PRA program as a resource for achieving compliance with the Americans with Disabilities Act (ADA) (as affirmed by the Olmstead decision) to allow people with disabilities to live in the least restrictive settings possible that meet their needs and preferences, and for helping to achieve the goals of state plans to reduce homelessness. PRA partnerships also consider available resources from state-administered supportive housing programs or initiatives as they determine where the PRA program fits in their state context.

All six states participate in the Money Follows the Person (MFP) rebalancing demonstration program, a federal initiative to give people needing long-term services and supports (LTSS) more choice about where they live and receive care, and to increase the capacity of state LTSS systems to serve people in community settings.[12] Four states (California, Delaware, Minnesota, and Washington) specifically target PRA units to individuals participating in their state's MFP program and coordinate outreach to potential PRA residents within their MFP programs.

California and Maryland also target participants of specific HCBS Medicaid waiver programs. Under HCBS waivers, states can "waive" certain Medicaid program requirements in order to provide people long-term care services and supports in their home, rather than in an institutional setting. CMS must approve any waivers, and the number and types of Medicaid waivers vary among states.

People experiencing homelessness are eligible for PRA units in all six states. Four states (California, Louisiana, Maryland, and Minnesota) specifically identify people who are homeless or at risk for homelessness as one of their target populations. State agencies in these states partnered with homeless outreach organizations to identify people who could benefit from PRA. People experiencing homelessness may be receiving services under Medicaid waiver programs, through state or locally funded programs, or may not be receiving any services at the time they apply to the PRA program.

Exhibit 2.2 lists the target population of the study states FY and FY13 grants. See the chapter titled ***PRA Program Practices that May Lead to Successful Results*** for more information about how the selection and prioritization of targeted populations in the study states affected who applies for PRA and who ends up being assisted by PRA.

Exhibit 2.2: Target Population of Section 811 PRA Programs

| State | Target Populations of FY12 and FY13 PRA Grants |
|---|---|
| California | • People residing in inpatient facilities and enrolled in the California Community Transitions Money Follows the Person (MFP) program<br>• People receiving Medi-Cal long-term home and HBCS waiver or state plan services who are at risk for placement in inpatient facilities<br>• FY13 grants also target people who are homeless or at risk for homelessness |
| Delaware | • People exiting the Delaware Psychiatric Center and/or with serious and persistent mental illness<br>• People exiting institutions with emphasis on MFP participants<br>• Identified as at risk of being admitted to long-term care facilities |
| Louisiana | • People who are inappropriately institutionalized<br>• Homeless people<br>• People who are at risk of homelessness (including those living in transitional housing) and those at risk of institutionalization |
| Maryland | • People with disabilities living in institutions<br>• People at risk of institutionalization due to current housing situation, such as those who are homebound or living in sub-standard housing<br>• People who want to move from a group home, Alternative Living Unit, or Residential Rehabilitation Program or HCBS Options Waiver participants moving from a licensed assisted living facility to independent renting<br>• Homeless people |
| Minnesota | • People experiencing long-term homelessness who have severe mental illness<br>• People with physical or mental disabilities exiting institutional settings and who are assisted by Minnesota's MFP program |
| Washington | • People served through the Roads to Community Living program<br>• People with developmental disabilities served through the Developmental Disabilities Division<br>• People with functional disabilities served through the Home and Community Services Division<br>• People with mental illnesses served through the Division of Behavioral Health and Recovery |

**Source: 2012 and 2013 PRA funding applications and information provided through administrative interviews with state housing and health agencies.**

## 2.3 PRA Program Profiles in the Six Study States

This section provides brief profiles of the PRA programs in the six study states.

### California

California's PRA program is a partnership among five state agency partners: the California Housing Finance Agency (CalHFA), California Tax Credit Allocation Committee, the Department of Housing and Community Development; the Department of Health Care Services (DHCS), and

[12] https://www.medicaid.gov/medicaid/ltss/money-follows-the-person/index.html

the Department of Developmental Services. CalHFA and their state partners applied for the maximum grant amount in the FY12 funding round. The state received FY12 and FY13 grants of approximately $12 million each. Combined, CalHFA expects to assist 433 units with the two grants. CalHFA issued a NOFA and invited owners of existing multifamily properties, as well as properties under development, to apply for PRA subsidies.

The FY12 California PRA program targets persons with disabilities who are eligible for Medicaid and who are either living in an institution and interested in living in the community or at risk of institutionalization. The PRA program targets people in California Community Transitions, the state's MFP program, and others eligible for Medicaid services. The FY13 grant added people experiencing homelessness as a target population. Two service agencies that are under California's 13-agency DHCS are PRA partners: The Department of Developmental Disabilities and the Department of Health Care Services that administers the state's Medicaid and MFP programs.

### Delaware

Delaware's Section 811 PRA program is administered by the Delaware State Housing Authority (DHSA), partnering with the Delaware Department of Health and Social Services (DHSS). The state received a FY12 grant of over $5 million for 148 PRA units. Delaware's Section 811 PRA program built on Delaware's State Rental Assistance Program (SRAP), which launched in 2011. SRAP provides vouchers for people with low income who are especially vulnerable to homelessness, such as youth exiting foster care or those exiting long-term care institutions. DSHA identified PRA units by establishing points in their LIHTC programs for properties to accept PRA units in new and rehabilitated properties.

The target populations for Delaware's PRA program are, in order of priority, (1) the population covered under a 2011 Department of Justice Settlement Agreement[13] who are DHSS clients exiting the Delaware Psychiatric Center and/or with serious and persistent mental illness; (2) DHSS clients exiting institutions, with an emphasis on MFP participants; and (3) people at risk of admission to long-term care facilities. Four divisions in DHSS administer the program for their respective populations: Division of Services for Aging and Adults with Physical Disabilities; Developmental Disabilities Division; Division of Medicaid and Medical Assistance (which administers the MFP program); and the Division of Substance Abuse and Mental Health. DHSS case managers or DHSS-approved service providers identify applicants for the PRA program.

### Louisiana

Louisiana's PRA program builds on the state's Permanent Supportive Housing (PSH) program developed in response to the 2005 hurricanes in the Gulf region. The state received a FY12 grant of $8 million, which is expected to fund 199 units. The PSH program targets people with disabilities who have supportive service needs. PRA partners are the Louisiana Housing Corporation (LHC) and the Department of Health and Hospitals. An Executive Management Council made up of representatives from a number of state agencies oversees the program. With the PRA grant, LHC expanded the PSH program from the Gulf region to other parts of the state. PRA also helps address priorities in the state's Ten-Year Plan to End Homelessness and the terms of a class-action lawsuit settlement under Olmstead (*Barthelemy v. Louisiana Department of Health and Hospitals*[14]). Louisiana identified PRA units through a NOFA for existing multifamily properties already funded with LIHTC or other housing subsidies.

Louisiana's FY12 PRA grant targets people who are inappropriately institutionalized, are homeless, or are at risk of institutionalization or homelessness. The PSH program office at LHC coordinates centralized outreach, with waitlists and referrals organized and tracked by parishes. Units targeted for the PRA program are largely funded through the LIHTC program or HUD's HOME program.

### Maryland

In Maryland, the PRA program partners are the Departments of Housing and Community Development for identifying properties for PRA units; Health and Mental Hygiene for providing services to residents and applicants; and Developmental Disabilities for managing applications, waiting lists, and referrals to units. Maryland's MFP program, housed in the Department of Health and Mental Hygiene, provides substantial staff support to the PRA program. The state received a FY12 grant of $11 million for 150 units and an FY13 grant of approximately $10 million for an additional 153 units. Maryland built its PRA program approach on two existing programs. The Bridge Program provides temporary tenant-based rental subsidies to assist low-income people with disabilities until they could obtain a housing choice voucher. The Weinberg Apartments program provides rental housing in tax credit properties to people with disabilities with

[13] United States v. Delaware, Civil Action No. 11-591-LPS (July 6, 2011)

[14] Barthelemy v. Louisiana Dept. of Health and Hospitals (U.S. Dist. Ct., E.D. La., No. 00-1083, Oct. 17, 2001)

incomes between 15 and 30 percent of area median income. The state housing agency identified PRA units in a mix of existing multifamily properties and properties under development.

Maryland's FY12 PRA program focused on the Washington and Baltimore metropolitan areas. The FY13 grant expands the program statewide. Maryland's PRA target populations are, in order of priority, (1) people who are living in an institution, (2) people at risk of institutionalization, (3) Community Pathways Waiver and Residential Rehabilitation program participants who are transitioning to community-based settings and people experiencing homelessness who are enrolled in Medicaid, and (4) people transitioning from group homes or assisted living facilities. The Department of Developmental Disabilities maintains a combined waiting list, organized by priority and desired county of residence, for applicants for PRA assistance, the Bridge Program, and Weinberg Apartments.

### Minnesota

Minnesota's PRA program is administered by the Minnesota Housing Finance Agency (MN Housing) and the state Medicaid agency, the Department of Human Services. The state received a FY12 grant of $3 million for 85 PRA units and a FY13 grant for an additional $3 million for PRA 75 units. The two agencies have a long history of working together. The PRA program built on the state's MFP and supportive housing initiatives for people experiencing homelessness and serious mental illness. In addition, the state views the PRA program as an important source of community-based housing to help the state respond to an Olmstead settlement. MN Housing allocated their FY12 units through a NOFA for owners of existing multifamily properties and allocated their FY13 units through incentives in their state LIHTC program for new construction or rehabilitated properties.

The Minnesota PRA program targets people experiencing long-term homelessness and serious mental illness and people with mental illness or physical disabilities who are exiting institutions and who are enrolled in the MFP program. The state views PRA units as a source of community-integrated housing to support members of the Jensen Settlement Agreement.[15]

### Washington

In Washington, the Department of Commerce (Commerce) and the Department of Social and Health Services (DSHS) are the key PRA program partners. Commerce received a FY12 grant of $5.7 million and expects to subsidize 133 units. DSHS has three regional housing program managers who coordinate housing referrals in the state. The contractor administers the PRA rental assistance. The Washington Housing Finance Agency and the State Health Care Authority (the state Medicaid agency) coordinate with Commerce and DSHS, but do not play active roles in PRA program management. Commerce issued a NOFA and invited owners of existing multifamily properties, as well as properties under development, to apply for PRA subsidies. The state agencies also actively conducted outreach to property owners of multifamily properties that received capital subsidies through state affordable housing programs.

The PRA program fills gaps in Washington's existing housing programs for people with disabilities and provides a permanent housing option for people served in two state-funded transitional housing programs. Washington's PRA target populations are MFP participants and other Medicaid waiver clients with developmental disabilities, mental illness, or functional disabilities.

## 2.4 PRA Program Status in the Study States

This section provides a brief update on the study states' progress with PRA implementation as of the end of September 2018, which is the end of the third full PRA program fiscal year. The data come from the most quarterly progress reports that grantees submitted to HUD. The quarterly reports update HUD on the number of units under contract with owners and under lease by PRA residents, as well as provide some summary characteristics of PRA applicants, residents, and units under contract.

### Status of Units under Contract and under Lease

**As of September 2018, the study states had about half of the total number of planned PRA units under contract with owners for PRA subsidies.** All PRA partnerships in the study states have made progress in identifying properties and units, entering into contracts with property owners, and leasing PRA units to eligible people with disabilities, as shown in Exhibit 2.3. The exhibit compares each state's progress to the number of units the grantee expects to assist with its FY12 and FY13 grants. Grantees in the six study states had identified 104 percent of their planned FY12 PRA units (Louisiana and Maryland both identified more units than they expect to fund), had 78 percent of planned units under contract with owners, and had 51 percent under lease by PRA residents. For FY13 grants, 56 percent of planned units were identified, 7 percent were under contract, and 3 percent were under lease by PRA residents as of September 2018.

[15] https://mn.gov/dhs/general-public/featured-programs-initiatives/jensen-settlement/

Exhibit 2.3: Status of Planned 811 PRA Units in the Study States, September 2018

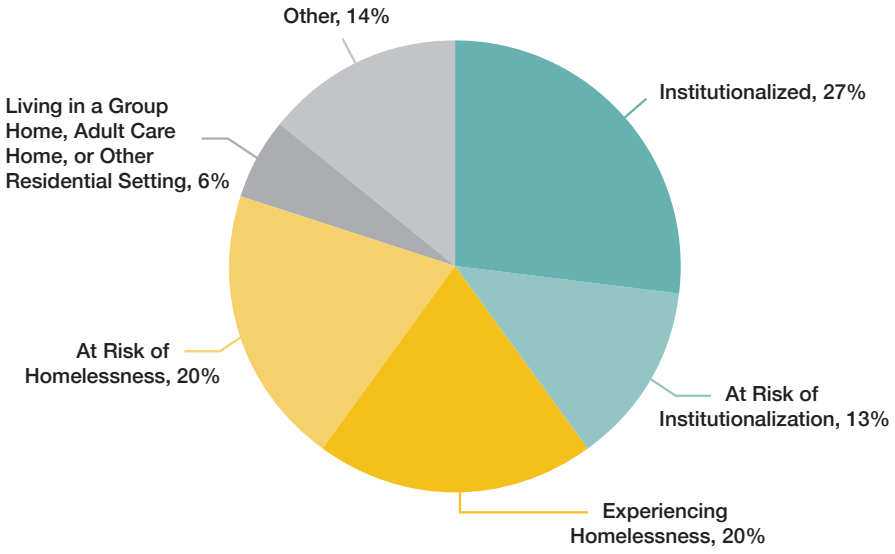
| State | FY12 # of Planned Units | FY12 % of Units Identified | FY12 % Units under Contract | FY12 % Units Leased | FY13 # of Planned Units | FY13 % of Units Identified | FY13 % Units Under Contract | FY13 % Units Leased |
|---|---|---|---|---|---|---|---|---|
| California | 233 | 96% | 55% | 36% | 200 | 17% | 0% | 0% |
| Delaware | 148 | 82% | 78% | 42% | | | | |
| Louisiana | 199 | 128% | 128% | 62% | | | | |
| Maryland | 150 | 115% | 49% | 49% | 150 | 86% | 5% | 4% |
| Minnesota | 85 | 99% | 99% | 91% | 75 | 104% | 37% | 13% |
| Washington | 133 | 100% | 65% | 52% | | | | |
| **Total** | **948** | **104%** | **78%** | **51%** | **425** | **56%** | **7%** | **3%** |

Source: Abt analysis of 811 PRA Quarterly Reports for the period ending September 30, 2018.

## PRA Residents Assisted During 2015-2018

Between 2015 and September 2018, the study states had assisted 725 households. Grantees report that PRA residents came from a variety of previous living situations (Exhibit 2.4). More than a quarter of PRA residents (27 percent) moved directly from nursing facilities or other institutional care settings, and an additional 13 percent were at risk for institutionalization if they could not access affordable housing. Approximately 20 percent of residents were experiencing homelessness, and another 20 percent were at risk for homelessness. Six percent of residents moved from a group home, adult care home, or other residential setting, and the previous living situation was not reported for the remaining 14 percent of PRA residents.

Exhibit 2.4: PRA-Assisted Residents in the Study States by Previous Living Situation, September 2018




Note: Percentages may not add to 100 percent due to rounding.
Source: Abt analysis of 2015-2018 Section 811 PRA Quarterly Reports in six study states.

## Duration of PRA Resident Tenancy

Given the recency of the program funding and relatively slow pace of PRA unit occupancy, most residents in PRA-assisted units had not lived in their units for very long at the time of the evaluation. Among the 519 households reported living in PRA units as of September 2018: 22 percent had moved into PRA units within the last 6 months, and 23 percent had moved in between 7 and 12 months ago. A third (33 percent) had moved in between 1 and 2 years ago, and 21 percent had lived in their units for more than 2 years.

**In the first 4 years of the program, almost one-fifth of PRA residents exited the program in the study states.** Cumulatively, 193 PRA households (19 percent) exited in the first 4 years of the program (Exhibit 2.5). While the number of exits increased over time, the percent of residents who left each year declined as overall participation grew. The percent of residents exiting PRA units decreased from 23 percent in 2016 and 24 percent in 2017 to 17 percent in 2018.

The states selected for the Phase II Evaluation were chosen because they had made the most progress leasing PRA units by spring 2017 when the study team finalized the research design.

Exhibit 2.5: PRA Residents Exiting Housing in the Study States, Program Years 2015–2018

| | Total 2015–2018 |
|---|---|
| Leased residents at end of year | 504 |
| Number of residents exiting PRA units | 193 |
| Percent of leased residents exiting PRA units | 19% |

**Note: Percentage of PRA residents exiting housing in the study states based on the number of residents residing in PRA units at the end of the fiscal year.**

**Source: Abt analysis of 2015-2018 Section 811 PRA Quarterly Reports through the period ending September 30, 2018, in six study states.**

During the research period, these states continued to outpace other states in housing PRA residents. In addition to providing a sizable sample for the evaluation's outcomes analyses, these six states' PRA programs also present a variety of partnership structures, targeting approaches, outreach and housing placement strategies, and other program features. They may not be representative of the larger group of 27 states that are administering PRA grants, but they do reflect a diversity of program settings and approaches and can offer lessons for the program going forward.

# Chapters 3-7: Early Evidence from the PRA Program

As described in the fourth section of the first chapter, a primary goal of the Phase II evaluation is to **assess the outcomes and effectiveness of the PRA program and to compare to outcomes for similar populations living in other housing settings**. The third through seventh chapters in this section review the early evidence from the study.

The analyses are based on available individual-level data from HUD, CMS, and state Medicaid agencies in the six study states. Where data are available, the study compared outcomes of PRA residents to outcomes of residents in the four comparison groups described in the chapter titled "PRAC, NED, other HUD, and non-HUD."

The comparison groups are limited to households with non-elderly people with disabilities. The PRA, PRAC, and NED comparison groups include all individuals under age 65 in the six study states who receive rental assistance through those programs. For the other HUD group, we include all individuals under age 65 who report having a disability and who receive assistance from the public housing, HCV, and other HUD multifamily programs.

We supplement the administrative data analyses in this section with data from our survey of Section 811 residents in a sample of PRA and PRAC properties. We use the survey results to compare how PRA residents and PRAC residents rate their housing, neighborhood, community-based services and supports, and overall health and well-being.

The first chapter in this section presents descriptive analyses of the demographic characteristics of the study groups. We then present results of the impact analyses that compare outcomes for PRA residents and similar individuals in the comparison groups in neighborhood outcomes, property characteristics, and resident experience with community-based services and housing tenancy outcomes. The seventh chapter presents the health status and healthcare utilization patterns across the study's comparison groups.

# Demographic Characteristics of PRA Residents and Comparison Groups

In order to place the findings of the impact analysis in context, and to construct appropriate comparison groups, the study team analyzed demographic data on PRA program residents and other HUD program residents. This analysis also provides insight into who the PRA program is supporting, relative to other HUD programs that provide assisted housing. The data come from several HUD databases.[16]

These demographic comparisons are intended to help readers interpret the results of the differences in program outcomes presented in the subsequent chapters. Secondly, we use these demographic and household characteristics (race, ethnicity, gender, age, any dependents, and income) to select individuals for comparison groups who are most similar to PRA residents. Constructing similar comparison groups means differences in program outcomes can be attributed to the program (PRA, PRAC, NED, or other HUD), rather than to individual characteristics.

The study found numerous differences between PRA households and households in the comparison groups in the six study states:

- PRA residents have fewer single-person households than PRAC residents but more than NED and other-HUD programs.
- PRA residents are less likely to be white non-Hispanic, are younger, and have lower incomes compared to non-elderly people with disabilities served in other HUD programs in the same states.

## 3.1 Household and Demographic Characteristics

### Household Size

**PRA residents are less likely to be single-person households than PRAC residents, but more likely than NED and other-HUD residents.** The PRA program assists households of varying sizes, although the majority of PRA households are single-person households. The average household size is 1.3 for PRA, 1.1 for PRAC, 1.9 for NED, and 1.8 for other HUD. As shown in Exhibit 3.1, 78 percent of PRA residents live alone, 15 percent live in two-person households, and 7 percent live in three-person or larger households. By contrast, most PRAC residents (92 percent) live alone. More than half of NED (55 percent) and other-HUD assisted residents (61 percent) live alone. The remaining NED and other-HUD assisted households are approximately evenly distributed between two and three-person (or larger) households.

**Both PRA and PRAC residents lived in units with an approximate average of 1.0 bedrooms, lower than for NED residents (1.9 bedrooms) and other HUD residents (1.5 bedrooms).** The distribution of bedroom sizes of the units mirrors the household sizes served across these programs (see Exhibit 3.1).

Exhibit 3.1: Household and Bedroom Size of PRA, PRAC, NED, and Other HUD-Assisted Households in the Study States, March 2018

| Characteristics of HUD-Assisted Households | PRA | PRAC | NED | Other HUD-Assisted |
|---|---|---|---|---|
| **N** | **540** | **3,194** | **2,532** | **62,661** |
| **Household Size** | | | | |
| 1 Person Household | 78% | 92% | 55% | 61% |
| 2 Person Household | 15% | 6% | 22% | 19% |
| 3+ Person Household | 7% | 2% | 23% | 21% |
| Average Household Size | 1.32 | 1.1 | 1.93 | 1.81 |

(cont)

[16] The non-HUD comparison group does not receive HUD assistance; therefore, we do not have comparable demographic data on that group.

Exhibit 3.1: Household and Bedroom Size of PRA, PRAC, NED, and Other HUD-Assisted Households in the Study States, March 2018 (cont)

| Characteristics of HUD-Assisted Households | PRA | PRAC | NED | Other HUD-Assisted |
|---|---|---|---|---|
| N | 540 | 3,194 | 2,532 | 62,661 |
| **Bedroom Count** | | | | |
| 0 Bedroom | 27% | 7% | 3% | 12% |
| 1 Bedroom | 50% | 85% | 42% | 43% |
| 2+ Bedroom | 23% | 8% | 34% | 28% |
| 3+ Bedroom [a] | | | 21% | 17% |
| Average No. of Bedrooms | 0.97 | 1.04 | 1.86 | 1.53 |

[a] Three and four bedrooms combined with two bedrooms for PRA and PRAC only due to small sample reporting restrictions.

Source: Abt analysis of unweighted household data from HUD databases iREMS and PIC as of March 2018 in the six study states.

## Age

**Adults in PRA households are younger than residents assisted by other HUD programs.** On average, PRA residents are age 45, compared to 46 for PRAC, 47 for NED and 50 for other HUD-assisted residents (Exhibit 3.2). The PRA, PRAC, and NED programs require that the individual with a disability be age 61 or younger on their move-in date. In order to create an appropriate comparison population from the other HUD-assistance programs, we included in the sample only households with adult members with disabilities who are younger than age 65. Differences in age may be related to differences in residents' tenure as described in the next section.

## Race, Ethnicity, and Gender

A larger share of PRA residents are African-American and a smaller share are non-Hispanic white or Hispanic than residents in the comparison groups. As shown in Exhibit 3.2, a higher proportion of PRA residents identified as African American or black (45 percent) when compared to PRAC residents (32 percent), NED recipients (31 percent), and other HUD residents (43 percent). Similarly, less than half of PRA residents identified as white non-Hispanic (42 percent), compared to 51 percent of PRAC residents, 50 percent of NED residents, and 41 percent of other HUD residents. PRA and PRAC residents are less likely to identify as Hispanic (6 percent) than NED resident (13 percent) and other HUD residents (12 percent).

PRA programs assist slightly more women than men, 54 percent vs. 46 percent. NED and other HUD-assisted residents also have more women than men. The opposite is true for PRAC residents, who are 52 percent male.

Exhibit 3.2: Demographic and Socioeconomic Characteristics of PRA, PRAC, NED, and Other HUD-Assisted Households in the Study States, March 2018

| Characteristics of HUD-Assisted Households | PRA | PRAC | NED | Other HUD-Assisted |
|---|---|---|---|---|
| N | 540 | 3,194 | 2,532 | 62,661 |
| **Age of Individual w/ Disability** | | | | |
| 18-30 | 19% | 16% | 15% | 10% |
| 31-40 | 19% | 19% | 16% | 15% |
| 41-50 | 19% | 19% | 18% | 17% |
| 51-62 | 40% | 38% | 42% | 43% |
| 63+ | 3% | 8% | 9% | 15% |
| Average Age | 45 | 46 | 47 | 50 |

(cont)

Exhibit 3.2: Demographic and Socioeconomic Characteristics of PRA, PRAC, NED, and Other HUD-Assisted Households in the Study States, March 2018 (cont)

| Characteristics of HUD-Assisted Households | PRA | PRAC | NED | Other HUD-Assisted |
|---|---|---|---|---|
| **N** | **540** | **3,194** | **2,532** | **62,661** |
| **Race and Ethnicity** | | | | |
| White/Caucasian (not Hispanic) | 42% | 51% | 50% | 41% |
| Black/African American | 45% | 32% | 31% | 43% |
| Asian | 0% | 3% | 4% | 3% |
| Hispanic | 6% | 6% | 13% | 12% |
| Other or Unknown | 7% | 8% | 2% | 1% |
| **Gender** | | | | |
| Female | 54% | 48% | 59% | 55% |
| Male | 46% | 52% | 41% | 45% |

**Note: Households could report more than one race or ethnicity so totals for race and ethnicity may not add to 100 percent.**

**Source: Abt analysis of unweighted household data from HUD databases iREMS and PIC as of March 2018 in the six study states.**

## Household Income

PRA residents have lower average household incomes than any of the other HUD-assisted groups. PRA residents' average unadjusted annual total income was $8,578, compared with PRAC residents ($10,716), NED residents ($14,729), and other HUD residents ($14,205) (see Exhibit 3.3). Average income is also affected by the number of households that report zero income which is 5 percent for PRA household and 6 percent for PRAC households, compared to 1 percent for NED and other HUD households. The PRA program targets households with lower household incomes than the other HUD comparison programs. To be eligible, PRA households must have extremely low household incomes (no more than 30 percent of AMI), compared to 50 percent of AMI for other HUD programs.

Exhibit 3.3: Household Income of PRA, PRAC, NED, and Other HUD-Assisted Households in the Study States, March 2018

| Characteristics of HUD-Assisted Households | PRA | PRAC | NED | Other HUD-Assisted |
|---|---|---|---|---|
| **Annual Household Income** | | | | |
| N | 540 | 3,194 | 2,532 | 62,661 |
| Average household income | $8,578 | $10,716 | $14,729 | $14,205 |
| Percentage of households that report zero household income | 5.4% | 5.8% | 0.9% | 1.3% |

**Source: Abt analysis of unweighted household data from HUD databases TRACS and IMS/PIC as of March 31, 2018, in the six study states.**

Differences in household income across programs may be related to a number of factors. NED and other HUD households are more likely to have more than one household member than PRA or PRAC households. Average income is also affected by residents' source of income. More than half of PRA residents (54 percent) receive Supplemental Security Income (SSI). This percentage is higher than for PRAC residents (48 percent), but lower than for NED (60 percent) and other HUD (59 percent) households. Only a third of PRA households (34 percent) report Social Security disability or retirement income, compared to 56 percent of PRAC households, 57 percent of NED, and 49 percent of other HUD-assisted households. Fewer PRA households have employment or business income, 6 percent, compared to 15 percent for PRAC, 17 percent for other HUD, and 20 percent for NED.

## Exhibit 3.4: Sources of Household Income of PRA, PRAC, NED, and Other HUD-Assisted Households in the Study States, March 2018

| Source of Income | PRA | PRAC | NED | Other HUD-Assisted |
|---|---|---|---|---|
| N | 506 | 2,998 | 2,450 | 60,411 |
| Percentage with Supplemental Security Income | 54% | 48% | 60% | 59% |
| Percentage with Social Security | 34% | 56% | 57% | 49% |
| Percentage with general assistance or welfare | 15% | 17% | 20% | 19% |
| Percentage with TANF | 6% | 2% | 8% | 10% |
| Percentage with any wage or own business income [b] | 6% | 15% | 20% | 17% |
| Percentage with unemployment insurance | 0% | 0% | 1% | 1% |
| Percentage with child support | <3% [a] | 0% | 6% | 4% |
| Percentage with pension | 0% | 1% | 3% | 6% |
| Percentage with other non-wage income | 4% | 5% | 8% | 8% |

[a] Percentage not shown due to small sample reporting restrictions.

[b] Percentage with any wage includes "PHA Wage," "Federal Wage," "Other Wage," and "Business Income."

Note: Households may have more than one source of income. Sample sizes differ from Exhibit 3.3 because of missing source of income information for some households.

Source: Abt analysis of unweighted household data from HUD databases TRACS and PIC as of March 31, 2018, in the six study states.

# Neighborhood Characteristics for PRA Residents and the Comparison Groups

Prior research has documented that different housing assistance approaches and programs can result in differences in the characteristics of neighborhoods where housing assistance recipients live (Galvez, 2010; Finkel et al., 2016; McClure, 2008). The quality of life and health for people with disabilities can be related to features of the properties where they live, but they may also be related to characteristics of the neighborhoods where they live. This section compares the characteristics of neighborhoods where PRA-assisted households live to the characteristics of the neighborhoods where similar people assisted by PRAC, NED, and other HUD programs live. We present findings for four types of neighborhood characteristics: household demographics, share of individuals with a disability, education and income, and indicators of livability.

The study found numerous statistically significant differences in certain characteristics of the neighborhoods where PRA residents live and where residents in the comparison groups live. PRA residents are significantly more likely to live in neighborhoods with higher concentrations of poverty, lower rates of owner-occupied units, higher residential density, lower education rates, and higher percentages of people with a disability than the neighborhoods where other HUD-assisted, non-elderly people with disabilities live. While PRA residents live in neighborhoods that have somewhat higher rates of access to public transportation, they are also significantly more likely to live in neighborhoods with higher exposure to harmful environmental toxins than those in the PRAC, NED, and other HUD-assisted groups

## 4.1 Approach to Comparison of Neighborhood Characteristics

Using census tract-level data from the American Community Survey (ACS), an annual update of the decennial census, and geocoded data on properties from HUD administrative data, the study team compared average characteristics for neighborhoods where PRA residents and the residents in the study's comparison groups live.

Exhibit 4.1 reports the number of residents in the neighborhood analysis sample, the number of properties (for PRA and PRAC only), and the number of census tracts in which they live, based on the census tracts provided in the HUD data.[17]

Exhibit 4.1: Number of Households, Properties, and Census Tracts in Neighborhood Analysis, by Study Group in the Study States, March 2018

| Comparison Group | Individuals in Neighborhood Analysis Sample | Number of Section 811 Properties in Which Households Live | Number of Census Tracts in Which Households Live |
|---|---|---|---|
| PRA | 540 | 58 | 66 |
| PRAC | 6,479 | 484 | 574 |
| NED | 8,823 | -- | 1,838 |
| Other HUD-assisted | 177,434 | -- | 6,803 |
| **All six study states** | **193,276** | -- | **9,281** |

**Note: There may be more census tracts than properties because both PRA and PRAC properties may have multiple locations under some circumstances.**

**Source: Abt analysis of TRACS and PIC household data from the quarter ending March 31, 2018.**

[17] A small number of individuals in the NED and other HUD comparison groups were dropped from this analysis because of missing values in the neighborhood data due to small-cell reporting restrictions in the American Community Survey.

## 4.2 Neighborhood Demographic and Household Characteristics

### Residential Density and Urban/Rural Classification

The study compared two measures of residential density in census tracts where PRA residents and comparison group members live: rates of single-family owner occupancy and the percentage of buildings with more than 50 units. These measures can be indicators of neighborhood stability. Single-family owner-occupants have a longer average length of time in a property as compared to renters, so neighborhoods with higher percentages of single-family owners are likely to have more long-term residents. The number of units by building size also helps us understand how many people live in each neighborhood.

**On average, PRA residents live in neighborhoods with a lower owner-occupancy rate than the comparison groups.** Just over a third of properties in PRA residents' neighborhoods (36 percent) are owner-occupied, compared to almost half of properties (50 percent) in PRAC residents' neighborhoods, 46 percent for NED, and 42 percent for other HUD-assisted programs. The statewide average for the study states is 59 percent. See Exhibit 4.2.

**PRA residents also live in neighborhoods with more buildings with 50 or more units than residents in the comparison groups.** On average, 22 percent of buildings in PRA neighborhoods are that large, compared to only 8 percent for PRAC, 7 percent for NED, and 12 percent for other HUD-assisted programs. Less than half of buildings in neighborhoods where PRA residents live are single-family homes or other one-unit structures (45 percent), compared to 60 percent for PRAC, 58 for NED, and 53 for other HUD-assisted residents.

As shown in Exhibit 4.2, PRA residents are more likely to live in urban areas than PRAC, NED, and other HUD-assisted groups are. The U.S. Census categorizes census tracts or blocks as either urban or rural areas. Urban areas are comprised of Urbanized Areas (UAs) that have more than 50,000 people or Urban Clusters (UC) that have at least 2,500 and less than 50,000 people. Rural Areas encompass all areas not included in an urban area (UA or UC). Most PRA residents, 97 percent, live in Urbanized Areas compared with 82 percent of PRAC residents, 86 percent of NED, and 80 percent of other HUD-assisted residents.

Exhibit 4.2: Neighborhood Characteristics of HUD-Assisted Households in Study Groups, March 2018

| Neighborhood Characteristics | PRA Mean | PRAC Mean | NED Mean | Other HUD-Assisted Mean | Statewide Average |
|---|---|---|---|---|---|
| **N** | 540 | 3,197 | 2,719 | 66,687 | 24,112,942 |
| **Owner Occupancy Rate of Housing** | | | | | |
| Percentage of properties that are owner occupied | 36.2% | **49.7%**** | **46.0%**** | **42.2%**** | 59.4% |
| **Building Size** | | | | | |
| Percentage of buildings with 1 unit | 44.8% | **59.6%**** | **58.1%**** | **53.1%**** | 67.4% |
| Percentage of buildings with 2-9 units | 13.1% | **16.7%**** | **17.8%**** | **18.0%**** | 12.2% |
| Percentage of buildings with 10-49 units | 18.2% | **11.5%**** | **13.3%**** | **13.3%**** | 9.5% |
| Percentage of buildings with 50+ units | 21.7% | **8.0%**** | **6.8%**** | **12.0%**** | 6.1% |
| **Urban/Rural Classification** | | | | | |
| Percentage of households living in Urbanized Areas | 96.9% | **81.6%**** | **86.2%**** | **80.3%**** | 80.7% |
| Percentage of households living in Urban Clusters | <3%[a] | **<19%[a]**** | **8.5%**** | **14.9%**** | 7.9% |
| Percentage of households living in Rural Areas | <3%[a] | **<1%[a]**** | **2.1%**** | **2.9%**** | 11.4% |

[a] Exact percentages not shown due to small sample reporting restrictions.

**Indicates a statistically significant difference between PRA and the comparison group with a p-value of .05.

Note: Statewide averages provided for comparison.

Sources: Abt analysis of ACS Factfinder and Affirmatively Furthering Fair Housing Data; and TRACS and PIC household data from the quarter ending March 31, 2018, in six study states.

## Percentage of Residents Who Report a Disability

**For all age groups, PRA residents live in neighborhoods where a higher share of the population reports a disability, based on self-reported data from the American Community Survey.**[18] However, some differences are small and not statistically significant. The largest difference was in the percentage of residents with disability age 35-64, who make up 22 percent of residents in PRA neighborhoods, compared to 16 percent for PRAC, 18 percent for NED, and 20 percent for other HUD-assisted residents. (Most PRA residents also fall into the 35-64 age group.) See Exhibit 4.3.

PRA residents live in neighborhoods with relatively the same percentages of people with disabilities over age 64 and between 18 and 34 as in the comparison groups. The ACS asks respondents a series of questions about six different types of disabilities.[19] Respondents who report any one of the six disability types are considered to have a disability.

## Education and Income

Based on ACS data, **PRA residents live in neighborhoods with a lower percentage of residents with an Associate degree or higher.** PRA residents live in neighborhoods where, on average, 46 percent of the adult population has a high school diploma or less as their highest level of educational attainment. This is a higher share than neighborhoods where PRAC and NED residents live, but similar to the share for residents in the other HUD comparison group.

**PRA residents live in neighborhoods with higher percentages of households with incomes below the poverty line.** On average, 28 percent of households in neighborhoods where PRA residents live have incomes below the federal poverty level, which is a significantly higher share than for neighborhoods where the other study groups live.[20] By contrast, the poverty rate is 18 percent in PRAC neighborhoods, 22 percent in NED neighborhoods, and 25 percent in neighborhoods of other HUD-assisted residents.

## Racially and Ethnically Concentrated Areas of Poverty Neighborhoods

One-third of PRA residents live in neighborhoods identified as Racially and Ethnically Concentrated Areas of Poverty, significantly more than in the comparison groups. Racially/Ethnically Concentrated Areas of Poverty (R/ECAP) have a non-white population of 50 percent or more and have more than 40 percent of households living below the poverty line. HUD's Affirmatively Furthering Fair Housing (AFFH) database defines R/ECAP as census tracts that have high concentrations of poverty with a minority of residents who are non-Hispanic white. Almost a third of PRA residents (30 percent) live in R/ECAP areas, compared to 8 percent for PRAC, 13 percent for NED, and 18 percent for the other HUD-assisted group. (See Exhibit 4.3.)

Exhibit 4.3: Neighborhood Demographic Characteristics of HUD-Assisted Households in Study Groups, March 2018

| Neighborhood Characteristics | PRA Mean | PRAC Mean | NED Mean | Other HUD-Assisted Mean | Statewide Average |
|---|---|---|---|---|---|
| **N** | 540 | 3,197 | 2,719 | 66,687 | 63,246,812 |
| **Population with Disabilities by Age** | | | | | |
| Percentage of residents with disabilities age 18-34 | 8.4% | **6.8%**** | 8.3% | **7.8%**** | 5.5% |
| Percentage of residents with disabilities age 35-64 | 21.9% | **16.1%**** | **18.4%**** | **20.2%**** | 11.9% |
| Percentage of residents with disabilities over age 64 | 5.7% | **5.2%**** | 5.6% | 5.6% | 5.0% |
| Percentage of residents with cognitive disability, all ages | 8.9% | **6.1%**** | 7.1% | **7.4%**** | 4.6% |
| Percentage of residents with ambulatory disability, all ages | 10.5% | **7.9%**** | 8.7% | **9.1%**** | 6.3% |

(cont)

[18] Disabled population by age (ACS Factfinder).

[19] The six types of disabilities in the ACS are: hearing difficulty, vision difficulty, cognitive difficulty, ambulatory difficulty, self-care difficulty, and independent living difficulty. Retrieved from https://www.census.gov/topics/health/disability/guidance/data-collection-acs.html

[20] The federal poverty level is defined by the U.S. Department of Health and Human Services: for 2018 it is $12,140 for the first person and $4,320 for each additional person.

Exhibit 4.3: Neighborhood Demographic Characteristics of HUD-Assisted Households in Study Groups, March 2018 (cont)

| Neighborhood Characteristics | PRA Mean | PRAC Mean | NED Mean | Other HUD-Assisted Mean | Statewide Average |
|---|---|---|---|---|---|
| **Education Level of Residents** | | | | | |
| Percentage of adults age 25 and over with associate degree or higher | 53.8% | **55.9%**** | **51.8%**** | **51.7%**** | 60.0% |
| Percentage of adults age 25 and over with high school diploma | 81.5% | **82.6%**** | 80.2% | **80.0%**** | 83.4% |
| **Poverty Level** | | | | | |
| Percentage of household below the poverty line | 28.2% | **18.4%**** | **21.7%**** | **24.9%**** | 13.7% |
| **Racially/Ethnically Concentrated Areas of Poverty** | | | | | |
| Percentage of properties in R/ECAP Areas | 29.6% | **7.9%**** | **12.7%**** | **17.8%**** | 4.4% |

R/ECAP = Racially/Ethnically Concentrated Areas of Poverty

**Indicates a statistically significant difference between PRA and the comparison group with a p-value of .05.

Note: Statewide averages provided for comparison.

Sources: Abt analysis of ACS Factfinder and Affirmatively Furthering Fair Housing Data; and TRACS and PIC household data from the quarter ending March 31, 2018, in six study states.

## Neighborhood Livability Indicators

Neighborhood livability may also affect quality of life for non-elderly people with disabilities. Using publicly available data at the census tract level from HUD's AFFH database and from the federal Environmental Protection Agency, we compared measures of use of public transportation, walkability, and environmental quality in neighborhoods where PRA residents and other HUD-assisted residents live.

Using publicly available data from the U.S. Environmental Protection Agency,[21] we compared a transit trips index score that measures the likelihood residents in a neighborhood use public transportation. The score ranges from 0 to 100, with a higher score representing better access to public transit. **On average, PRA residents live in neighborhoods with greater access to public transit than the comparison groups (Exhibit 4.4).** The transit score is 68 for PRA—similar to those for PRAC (66) and NED (67), but significantly higher than those for other-HUD assisted residents (64).

The National Walkability Index[22] score ranges from 1 to 20, with higher scores for areas that are considered more "walkable." Walkability is a measure used to characterize the relative ease of pedestrian travel in a census tract block group.[23] A higher walkability score means that it is more likely people walk as a mode of travel in that census block.

**PRA residents live in neighborhoods with higher rates of walkability than PRAC, NED, and other HUD-assisted residents.** On average, the National Walk Index Score is 12.6 for PRA neighborhoods, compared to 12.0 for PRAC, 10.5 for NED, and 11.6 for neighborhoods where other HUD-assisted residents live.

Environmental health is measured by the Environmental Health Index from HUD's Affirmatively Furthering Fair Housing Data and Mapping Tool.[24] The index measures potential exposure to harmful toxins within a census block. Scores range from 0 to 100. The higher the score a census tract has, the less exposure to harmful toxins, and the better the environmental quality. **PRA residents lived in neighborhoods with slightly, but statistically significantly, higher exposure to harmful environmental toxins than those in the PRAC, NED and other HUD-assisted groups.** The Environmental

[21] https://www.epa.gov/smartgrowth

[22] Environmental Protection Agency. National Walkability Index. 2010-2012. Published December 23, 2015. https://www.epa.gov/smartgrowth/smart-location-mapping

[23] The Walkability Index is a composite index that characterizes every Census 2010 block group in the U.S. based on its relative walkability. The rankings were determined at the block group level and have been aggregated to higher-level geographies by way of population-weighted block apportionment.

[24] The Environmental Health Hazard Index summarizes potential exposure to harmful toxins at a neighborhood level. The index uses standardized EPA estimates of air quality carcinogenic, respiratory, and neurological hazards. https://www.hudexchange.info/resource/4867/affh-data-and-mapping-tool/

Exhibit 4.4: Comparison of Neighborhood Livability Indicators of HUD-Assisted Households in Study Groups, March 2018

| Neighborhood Characteristics | PRA Mean | PRAC Mean | NED Mean | Other HUD-Assisted Mean | Statewide Average |
|---|---|---|---|---|---|
| N | 540 | 3,197 | 2,719 | 66,687 | 63,246,812 |
| **Transit Measure** | | | | | |
| Transit Index Score | 68.3 | 66.2 | 67.0 | **64.0**** | 61.8 |
| **Walkability** | | | | | |
| National Walk Index Score (1-20) | 12.6 | **12.0**** | **10.5**** | **11.6**** | 10.5 |
| **Environmental Health** | | | | | |
| Environmental Hazard Index | 33.3 | **37.7**** | **40.4**** | **38.2**** | 34.4 |

**Indicates a statistically significant difference between PRA and the comparison group with a p-value of .05.

Note: Statewide averages provided for comparison.

Sources: Abt analysis of ACS Factfinder and Affirmatively Furthering Fair Housing Data and analysis of TRACS and PIC household data from the quarter ending March 31, 2018.

Health Index for neighborhoods where PRA residents live is an average of 33.3, compared to 37.7 for PRAC, 40.4 for NED, and 38.2 for other HUD-assisted.

## 4.3 Access to Services and Transportation

It is important for residents to be able to access the services they need to live an independent and full life. Staff from state agencies in five of the study states discussed the value of being near transit and paratransit (transportation services that meet or exceed requirements under the American Disabilities Act (ADA)). Service providers noted that, when transportation is not available, property location is a problem, limiting resident access to services and supports.

To measure how well residents are able to access services and transportation in their neighborhoods, the study team surveyed PRA and PRAC residents about how long it takes them to get places and whether they have problems navigating their neighborhood. Residents were asked how long it takes them to get to the nearest grocery store and pharmacy and whether they often or sometimes have trouble getting around their neighborhood.

### Differences in Survey Responses Between Section 811 PRA and PRAC Residents

Evaluators interviewed 403 PRA and PRAC residents in their homes between January and May 2018. The two groups were selected to be relatively similar in the length of time they had been assisted by Section 811 and also close geographically. The survey results were adjusted and weighted to make the two groups similar based on demographic and healthcare utilization characteristics. This allows us to compare differences between PRA residents and otherwise similar PRAC residents. Throughout the fourth through sixth chapters, the shaded text boxes compare resident survey results for PRA and PRAC residents. ***Statistically significant findings at the 5 percent level are noted and highlighted in bold and italics.***

**Most residents said it takes them between 15 minutes and 1 hour to get to the nearest grocery store or pharmacy.[25] Few PRA residents reported that they have trouble or sometimes have trouble (21 percent) getting around their neighborhood.** Of those who reported they did have trouble getting around, the most common reasons were that they did not have enough money for transportation (69 percent), or it that it takes too long (60 percent), that there is no public transportation in their area (49 percent), and that the neighborhood is not physically accessible enough for them (31 percent).

***PRAC residents and PRA residents are about as likely to report problems getting around their neighborhood.*** Less than a quarter of residents (21 percent of PRA residents and 23 percent of PRAC residents) said they sometimes have trouble getting around their neighborhood (Exhibit 4.5). Among those who report issues, the reasons are somewhat different for PRA and PRAC residents.

More PRAC residents said they have trouble getting around their neighborhood because it takes them too long to get where they wanted to go. ***Nearly all PRAC residents (94 percent) who said they have trouble getting around their neighborhood cited this as a reason, compared to 60 percent of PRA residents, a statistically significant difference.***

More PRA residents cite the lack of public transportation as a reason they have trouble getting around their neighborhood (49 percent of PRA residents compared to 36 percent of PRAC residents). This difference is not statistically significant, however. Similar percentages of PRA and PRAC residents reported having trouble getting around their neighborhood because they did not have enough money for transportation (69 percent of PRA and 66 percent of PRAC), and because their neighborhood was not accessible enough for them (31 percent for both groups).

Exhibit 4.5: PRA and PRAC Neighborhood Accessibility Measures

| Measure | PRA N | PRAC N | PRA% | PRAC% | Difference in Means |
|---|---|---|---|---|---|
| Percentage of residents who report they have trouble getting around their neighborhood at least sometimes | 180 | 207 | 20.9% | 23.4% | -2.6% |
| Because it is not physically accessible enough for them | 35 | 28 | 31.4% | 31.3% | 0.1% |
| Because their neighborhood has no public transportation | 33 | 28 | 48.5% | 36.2% | 12.3% |
| Because it takes them too long to get to where they need to go | 37 | 29 | 59.5% | 93.8% | **-34.4%**** |
| Because they do not have enough money for transportation | 35 | 26 | 68.6% | 66.0% | 2.6% |

****Indicates a statistically significant difference between PRA and the comparison group with a p-value of .05.**

**Note: PRAC results were adjusted and weighted for multiple comparisons.**

**Source: Abt analysis of Section 811 resident survey results administered in six states between January and May 2018.**

[25] Many PRA residents noted that they do not need to travel to a pharmacy to obtain their medications because they receive prescription drugs through the mail.

## 4.4 Resident Perception of Neighborhood

We surveyed PRA residents about their perception of the neighborhoods where they live in terms of the neighborhood's safety, accessibility, public transportation, and access to services and amenities. We also asked residents to report their overall satisfaction with their neighborhood.

**The majority of PRA residents reported that they like the neighborhood where they currently live and feel safe there.** Almost three-fourths of PRA residents (73 percent) said they liked their neighborhood (Exhibit 4.6). An additional 13 percent of PRA residents reported that they sometimes liked the neighborhood where they live. The majority of PRA residents (68 percent) reported that they felt safe in their neighborhood. Another 12 percent of residents reported that they sometimes felt safe, and less than 10 percent reported they do not feel safe in their neighborhood.

PRAC residents are more likely to report liking their current neighborhood (84 percent, compared to 73 percent of PRA residents), but the difference is not statistically significant. ***When compared to PRA residents, PRAC residents are significantly more likely to report feeling safe in their neighborhoods, 87 percent, compared to 68 percent of PRA residents.*** (See Exhibit 4.6.)

While about a third of PRA and PRAC residents said they wanted to move at the time of the survey (33.5 percent of PRA and 32.1 percent of PRAC residents), their reasons were different. PRA residents were significantly more likely to want to move because they don't feel safe or because their unit was not well maintained or managed. PRAC residents were significantly more likely to want to move because they want to live by themselves.

Exhibit 4.6: Section 811 PRA and PRAC Neighborhood Measures

| Measure | PRA N | PRAC N | PRA% | PRAC% | Difference in Means |
|---|---|---|---|---|---|
| Percent of residents who say they like their neighborhood | 180 | 207 | 72.8% | 83.8% | -11.0% |
| Percent of residents who say they feel safe in their neighborhood | 182 | 206 | 67.6% | 86.6% | **-19.0%**** |
| Percent of residents who say they want to move from their unit | 185 | 206 | 33.5% | 32.1% | 1.4% |
| Percentage of residents who want to move because they don't feel safe there | 104 | 106 | [a] | <10%[a] | **10.4%**** |
| Percentage of residents who want to move because their building or unit is not well maintained or managed | 104 | 106 | [a] | <10%[a] | **12.4%**** |
| Percentage of residents who want to move because they would like to live by themselves | 104 | 106 | <10%[a] | [a] | **-21.2%**** |

[a] Percentages not shown due to small sample reporting restrictions.

**Indicates a statistically significant difference between PRA and the comparison group with a p-value of .05.

Note: PRAC results were adjusted and weighted for multiple comparisons.

Source: Abt analysis of Section 811 resident survey results administered in six states between January and May 2018.

### Service Provider Perceptions of Neighborhoods Where PRA Units Are Available

The study team asked service providers who work with PRA applicants and residents and owners of properties where PRA residents live about their perceptions of the neighborhoods where PRA units are located and whether the neighborhoods meet the needs of the state's PRA target populations.

Service providers reported that the neighborhood factors that are most important to PRA applicants are:

- Being near current family and support networks
- Having a choice between suburban and urban options
- Being in a safe neighborhood
- Having access to public transit and door-to-door transit service
- Being close to community services, healthcare services, and shopping

State agency staff reported a number of challenges finding properties in neighborhoods or metro areas that were desirable to program applicants. State housing agencies have a limited set of owners and properties with which to partner. As a result, some residents move not only to different neighborhoods but also to different parts of the state entirely to find an affordable place to live. Such moves can interfere with a person's existing support network. Service providers from four states (Delaware, Louisiana, Maryland, and Washington) reported that some applicants may be reluctant to move away from their current families and support networks. In addition, some applicants may fear or dislike moving from a small country town or suburban area to a larger city. Service providers report that these concerns have prompted at least some applicants to turn down an available unit.

Service providers reported that some properties with PRA units are located in undesirable or high crime areas, are far from services or shopping, or are not accessible to public transit. Providers also noted that available PRA units did not always align with the preferences of residents to be near family or to be in an urban area or not. Preferences in housing location are personal, so it is difficult to generalize about how neighborhood features influence resident satisfaction.

Staff from five state agencies also reported that neighborhood safety was an issue for residents living in at least one of their properties. In two states, safety concerns have deterred residents from accepting an available unit or even from visiting the property to view the unit. Interviewees made comments such as ***"The neighborhoods aren't great from a safety perspective"*** and ***"Neighborhood safety is an issue, particularly in terms of drug activity"*** or that it is ***"not a nice neighborhood."*** These comments are generally associated with comments on high rates of drug activity and/or violence in the area.

# PRA and PRAC Property Characteristics

PRA subsidies are awarded to state housing agencies that are responsible for selecting properties where PRA can be used. Properties must have capital funding from other sources and meet HUD's physical quality standards. Units set aside for people with disabilities may not exceed 25 percent of all units in the property. Rents must not exceed the greater of either the Fair Market Rent or Small Area Fair Market Rent[26] and must be affordable to residents earning up to 50 percent of area median income. Grantees were provided incentives in the FY12 and FY13 grant competitions if they would agree to contract for units with rents below FMR.

Within these broad PRA program and rent requirements, state housing agencies have the flexibility to select properties where PRA can be used. This chapter describes the types of properties that were selected for PRA residents to live in, how they compare to the properties where Section 811 PRAC residents live, and how PRA and PRAC residents rate the quality of their properties and satisfaction with them. Using HUD administrative data, the study team reviewed the characteristics of properties with PRA units under agreement with owners and compared them to properties where PRAC residents live.

The study team compared property characteristics for PRA and PRAC residents only, and not for the NED and other HUD groups. Property data was not available for properties housing people with tenant-based assistance in the NED and the HCV program (HCVs are the majority of the other HUD comparison group). This chapter also draws on the study's surveys of PRA and PRAC residents about their experience and satisfaction with where they live, to determine whether the two groups differ.[27]

The study found that:

- Properties in the six study states where PRA and PRAC residents live are very different on average. Properties with PRA units under contract have an average of 72 units, while PRAC properties have an average of 14 units. The majority of PRA units are in larger developments of more than 50 units, in either walk-up or elevator buildings, while only 3 percent of PRAC residents live in properties with more than 50 units.
- On average in the study states, PRA units make up 10 percent of units in properties that have PRA units. This is well below the 25 percent cap but does not account for other units occupied by people with disabilities who are not PRA-assisted. Some properties have set-asides under other housing subsidy programs.
- The majority of PRA residents report they like where they live and feel safe, but a third of surveyed residents report wanting to move. The most common reasons PRA residents reported for wanting to move were that they would prefer to live in a different neighborhood, their building is not well maintained or managed, or they do not feel safe.
- PRAC residents are significantly more likely than PRA residents to report that the condition of their property is excellent or good and significantly more likely to feel safe in their property. A third of PRAC residents also report they would like to move from their current home, but for different reasons.
- Approximately three-fourths of PRA and PRAC residents reported maintenance issues in their units since they moved in, but residents report most problems have been resolved.

## 5.1 Section 811 Property Characteristics

Using HUD administrative data as of September 2018, the study team compared the building characteristics of properties where PRA units are under contract (including both units under lease by PRA residents and those that are not being assisted yet) and properties where PRAC residents live. Properties with PRA assistance must have at least five units and comply with the 25 percent cap on set-asides for people with disabilities, but otherwise, there are no restrictions on, for example, building type or maximum property size.

We expect to see differences in property characteristics in PRAC properties, given PRAC program rules regarding property size and configuration. PRAC capital grants may be used to build (1) group homes where residents share kitchen and living areas, (2) independent living facilities where each unit has a kitchen and bath, and (3)

[26] The Fair Market Rent is used as a standard for rents in the HCV and other affordable housing programs and is determined annually by HUD.

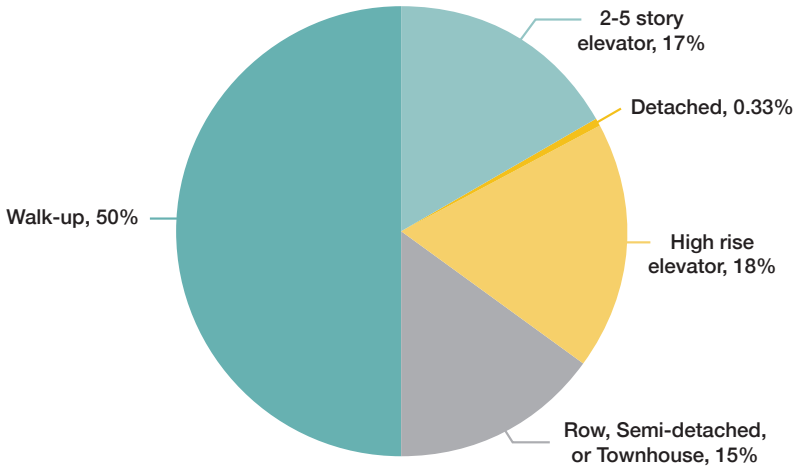
[27] The survey results were regression-adjusted and propensity score weighted to ensure similar populations. For details on adjustments and weighting, see Appendix B.

condominium units. Most PRAC properties have fewer than 25 units in a single location or, in some cases, across two or more locations.

## Building Type

**PRA units under contract with owners are heavily concentrated in larger developments of more than 50 units, in either walk-up or elevator buildings.**[28] Some 50 percent of PRA units are in walk-up properties, and 35 percent are in elevator buildings. Smaller shares of units are in row house developments (4 percent), semi-detached buildings (4 percent), or townhouses (7 percent).

Exhibit 5.1: Section 811 PRA Building Types for Occupied Units in the Study States, September 2018




Note: Percentages may not add to 100 percent due to rounding.

Source: Abt analysis of iREMS data as of September 2018 in the six study states.

## Property Size

**The average number of units per property with PRA units under contract is 72.** Almost three-fourths (74 percent) of units under contract are in properties with 50 or more units, and 44 percent have between 26 and 50 units. The remaining 2 percent of PRA units are in properties with fewer than 25 units. (See Exhibit 5.2.)

**As expected, PRAC properties are smaller on average than properties where PRA residents live. The PRAC properties in our sample have 14 units on average.** The majority of PRAC properties (67 percent) have between 10 and 25 units, compared to just 4 percent for PRA properties. Most of the remaining third of PRAC properties (33 percent) have between 2 and 9 units. Only three PRAC properties in the six study states have 50 or more units; these properties house 3 percent of all PRAC residents. An additional 7 percent of PRAC residents are housed in properties with between 26 and 49 units.

Also, **more PRAC properties are scattered site properties than is the case for PRA.** Scattered site properties are those that have units "scattered" throughout multiple locations or properties. Eight percent of PRAC properties are reported as being scattered site properties, compared to just two PRA properties (<1 percent).

[28] Property characteristics data are from HUD's iREMS system. Property data was not available for 140 of the 778 units under contract with owners as of September 2018. Data on building type was not available for most PRAC properties.

Exhibit 5.2: Size of Properties with PRA Units and PRAC Units in the Study States, September 2018

| No. of Units in Property | PRA Properties N | PRA Properties % | PRAC Properties N | PRAC Properties % |
|---|---|---|---|---|
| 2-9 units | 1 | 1% | 155 | 33% |
| 10-25 units | 3 | 4% | 317 | 67% |
| 26-49 units | 28 | 36% | 2 | <1% |
| 50+ units | 45 | 58% | 3 | <1% |
| **Total** | **74** | **100%** | **477** | **100%** |
| **Missing Unit Size** | 4 | | 0 | |
| Average size | 72 | | 14 | |
| % scattered-site | | <1% | | 8% |

**Note: Percentages may not add to 100 percent due to rounding.**

**Source: Abt analysis of iREMS data as of September 2018 in six study states.**

## Age and Development Status of PRA Units under Contract

**Most PRA residents live in properties that have been constructed or substantially rehabilitated in the last 20 years, but some residents live in older properties built in the 1970s and 1980s.** For 78 properties under contract with owners for PRA as of September 2018, almost two-thirds (62 percent) were constructed or substantially rehabilitated since 2010 (Exhibit 5.3). Most PRA residents (85 percent) live in these properties: 55 percent of PRA residents live in properties built or rehabilitated since 2010, and an additional 30 percent of residents live in properties built or rehabilitated between 2000 and 2009. Only one property with 11 PRA units was built in the 1970s, and two properties with a combined 13 PRA units were built in the 1980s.

The units under contract as of September 2018 represent approximately a third of the total number of units that the study states expect to assist with their 2012 and 2013 grants. When all the estimated units are fully leased, the vast majority of PRA residents will live in properties that are newly constructed or substantially rehabilitated.

Exhibit 5.3: Year of Construction or Last Rehabilitation for PRA and PRAC Properties in the Study States, September 2018

| Year Constructed or Substantially Rehabilitated | PRA Properties N | PRA Properties % | # of PRA Units in Properties | % of PRA Units in Properties | PRAC Properties N | PRAC Properties % | PRAC Units in Properties | % of PRAC Units in Properties |
|---|---|---|---|---|---|---|---|---|
| 1970-1979 | 1 | 1% | 11 | 2% | 0 | 0% | 0 | 0% |
| 1980-1989 | 2 | 3% | 13 | 2% | 1 | <1% | 12 | <1% |
| 1990-1999 | 8 | 10% | 74 | 12% | 190 | 40% | 2,412 | 47% |
| 2000-2009 | 18 | 23% | 189 | 30% | 242 | 51% | 2,726 | 53% |
| 2010-2017 | 48 | 62% | 345 | 55% | 43 | 9% | 13 | <1% |
| **Total** | **77** | **100%** | **632** | **100%** | **476** | **100%** | **5163** | **100%** |
| **Missing** | **1** | | **1** | | **1** | | **19** | |

**Note: Percentages may not add to 100 percent due to rounding.**

**Source: Abt analysis of iREMS data as of September 2018 in six study states.**

## For-Profit Status of Owner

More than two-thirds of owners with properties receiving PRA units are for-profit entities, representing 73 percent of all PRA units under contract as of September 2018.

By contrast, owners or sponsors of Section 811 PRAC properties are required to be nonprofit organizations, and 100 percent of PRAC residents live in properties with nonprofit owners.

## 5.2 Residents' Satisfaction with Their Housing

The 2018 survey of PRA and PRAC residents asked respondents about their satisfaction with where they live and how they rate the quality of their property.

**The majority of PRA residents reported that they liked where they live (76 percent) and felt safe in their building (77 percent).** Some PRA residents reported that they wanted to move, however (34 percent). The most common reasons PRA residents reported for wanting to move were that they would prefer to live in a different neighborhood (41 percent of residents who said they want to move), their building was not well maintained or managed (20 percent), they did not feel safe in their building (17 percent), and they would like to live closer to family or friends (14 percent). Other reasons were that they preferred to live in a different type of building, have better access to public transportation, or pay less-expensive rent.

Similar percentages of PRA and PRAC residents report that they like where they live. Some 76 percent of PRA residents and 80 percent of PRAC residents report that they like where they live (Exhibit 5.4). PRAC residents have more-favorable opinions regarding the quality and safety of their homes compared to PRA residents, however. ***Significantly more PRAC residents reported feeling safe living in their building than PRA residents (92 percent, compared to 77 percent of PRA residents.)***

While about one-third of PRAC residents (32 percent, or 66 residents surveyed) report they wanted to move, the reasons stated are different from those reported by PRA residents. PRAC residents report they want to move because they would prefer to live alone in their own apartment (39 percent of PRAC residents who want to move), would prefer a different neighborhood (29 percent), or would like to live closer to family or friends (20 percent).

Exhibit 5.4: Comparison of Section 811 PRA and PRAC Resident Satisfaction with Housing

| Percentage of Residents Who Report That | PRA N | PRAC N | PRA % | PRAC % | Difference in Means |
|---|---|---|---|---|---|
| They like the place where they live now | 184 | 207 | 75.5% | 79.8% | -4.2% |
| The condition of the place is excellent or good | 187 | 208 | 69.0% | 82.8% | **-13.9%**** |
| They feel safe living in their building | 187 | 204 | 76.5% | 91.7% | **-15.2%**** |
| They want to move from their place of residence | 185 | 206 | 33.5% | 32.1% | 1.4% |

****Indicates a statistically significant difference between PRA and the comparison group with a p-value of .05.**

**Note: PRAC results were adjusted and weighted for multiple comparisons.**

**Source: Abt analysis of Section 811 resident survey results administered in six states between January and May 2018 in six study states.**

## 5.3 Physical Quality of PRA Units

The Section 811 PRA program includes requirements and processes that help to ensure that units under lease for PRA residents meet a certain standard of physical quality. HUD requires property inspections every 3 years according to Uniform Physical Condition Standards (UPCS) that require properties to be decent, safe, sanitary, and in good repair. In practice, study states report conducting inspections more frequently than HUD's 3-year requirement, usually because other funding sources (such as LIHTC) require it. Five of the six study grantees conduct formal inspections annually, and one (California) conducts inspections every 2 years.

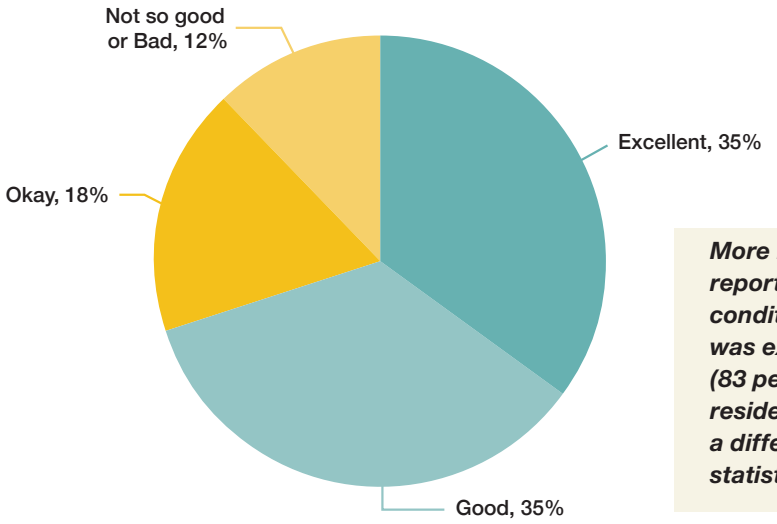
UPCS inspections are not required prior to grantees executing contracts with property owners, although all states report trying to visit the property prior to entering into an agreement with the owner, if feasible. In addition, as part of the PRA leasing requirements, all new residents (sometimes accompanied by their case managers) conduct a visual inspection and sign off on a checklist prior to moving in their unit. In two of the study states, state agency staff conduct visual inspections of all new PRA units prior to new residents moving in.

Inspection results for properties with PRA units were not available to the research team for this study, but we did ask state agencies, program partners, and residents for their perceptions about housing quality.

## PRA Resident Views on the Physical Quality of Their Housing

**Residents' views on the quality of their PRA housing are mixed.** More than two-thirds (70 percent) of PRA residents surveyed reported that their unit was either in "excellent" (35 percent) or "good" (35 percent) condition. The remainder said their unit was in "okay" (18 percent), or either "not so good" or "bad" (12 percent) condition. (See Exhibit 5.5.)

Exhibit 5.5: Section 811 PRA Resident Report of Property Condition




***More PRAC residents reported that the condition of their unit was excellent or good (83 percent) than PRA residents (70 percent), a difference that is statistically significant.***

Note: N=193 PRA residents.

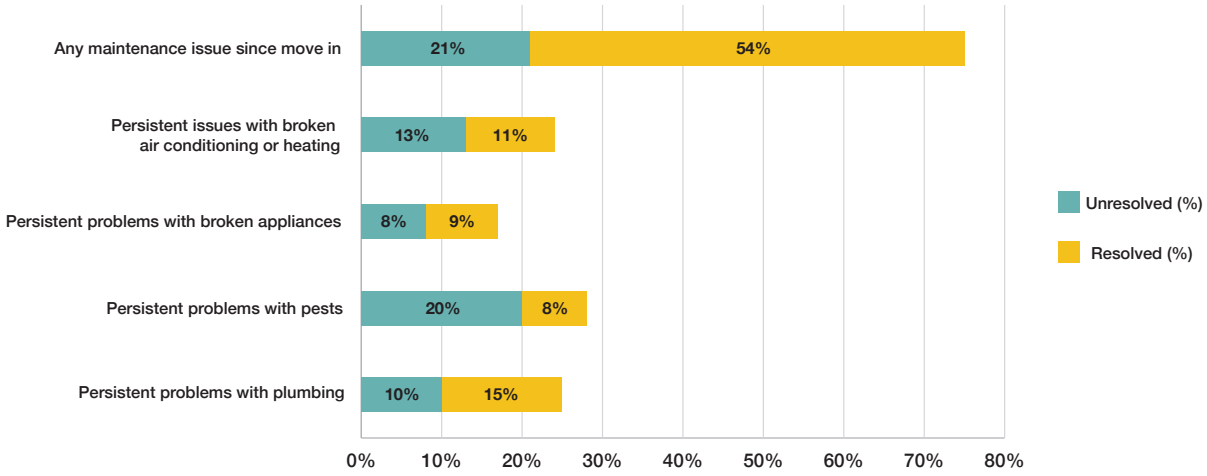
Source: Abt analysis of Section 811 resident survey results administered in six states between January and May 2018.

## Maintenance Issues Since Resident Moved into Unit

**Three-fourths of PRA residents reported at least one maintenance issue in their units since they moved into their apartments (Exhibit 5.6).** PRA residents reported problems in their unit with pests (28 percent of residents), plumbing (25 percent), broken air conditioning or heating (24 percent), or broken appliances (17 percent).

While the majority of residents report one or more maintenance issues, most residents also report that their maintenance issues were not persistent and had been resolved by property management and maintenance staff. **At the same time, more than a fifth of PRA residents (21 percent) reported unresolved maintenance issues.** The most common unresolved issue was with pests; 20 percent of PRA residents reporting persistent issues with these.

Exhibit 5.6: Unresolved and Resolved Maintenance Issues Reported by PRA Residents




Note: N = 193 PRA residents.

Source: Abt analysis of Section 811 resident survey results administered in six states between January and May 2018.

***Similar percentages of PRA and PRAC residents report having had at least one maintenance issue since they moved in, but fewer PRAC residents report persistent or unresolved maintenance issues.*** Compared to PRA residents, fewer PRAC residents report persistent problems with broken appliances (33 percentage points less), broken air conditioning or heating (14 percentage points less), and plumbing (13 percentage points less). PRAC residents reported slightly more unresolved issues with their apartments overall (2 percentage points more), and more unresolved issues with pests (4 percentage points) than PRA residents.

### Program Partner Perceptions of the Quality of PRA Units

Staff from the state housing agencies and service provider organizations we interviewed reported that PRA units rarely fail inspection but that the quality of the program ranges widely even within states. Properties range from newly built developments with extensive amenities to older properties with maintenance and accessibility problems, such as persistent vermin infestations or broken elevators. According to one service provider who works with PRA applicants looking for housing, ***"Some properties are better than others. Some I wouldn't want to live in."*** In three states, interview respondents indicated there were one or more properties with serious maintenance issues.

In contrast, some service providers and state agency staff described well- maintained properties. One was described as follows: ***"[Property] is wonderful. Furnishings were supplied for the units. The property is very pleasing visually. Lots of windows, light and airy . . . It is impressive—quality of furnishings is high. There is a sense of dignity for people to move into a place of that caliber."***

## 5.4 Unit Accessibility Features and Needs of Residents

Given the target populations of the PRA program, it is likely that some PRA residents will need accessibility features for people with disabilities in their units. HUD asks PRA grantees to report the number of accessible units under contract for PRA, but because PRA units can "float" within a property, owners cannot typically identify what accessibility features are available until a unit is vacant and available for lease to a PRA resident. For this reason, accessibility features are unknown for 448 units, or 58 percent of the 778 units under contract in the six study states.[29]

**Of the units under contract for which accessibility is reported, 19 percent have accessibility features for residents.** According to PRA grantee reported data, the majority of reported accessible units have accessibility features for people with mobility impairments (13 percent). Only 2 percent of units under contract are reported to

[29] In their quarterly PRA reports, grantees report the share of accessible units in the units under contract, but missing data rates are high, so these data should be viewed with caution. Further, while owners may have agreed to make accessible units available, they do not commit to lease specific units. Rather, units "float" within the development.

have accessibility features for hearing impairments, 1 percent for visual impairments, and 3 percent for some combination of impairments.

### Reported Accessibility Needs of PRA Residents

State agency and service provider staff report that the small number of available accessible units has not prevented the match of PRA applicants to a unit that meets their needs. According to state agency staff, few PRA applicants have reported needing fully accessible units.

While most PRA residents may not need fully accessible units, they may request modifications as reasonable accommodation after they move in. In resident surveys conducted for this study, about a quarter of respondents living in PRA units (24 percent) said they had requested modifications to their units, and 20 percent said they had asked for special equipment (see Exhibit 5.7). Most requests were minor, such as installing grab bars, lowering countertops, accommodating a service animal, or moving a client to a first-floor unit. Interviewees did not report issues with completing reasonable accommodation requests for their units, and most indicated that the requested accommodations were provided.

Since the study team interviewed only Section 811 residents, and not applicants, we cannot speak to the accessibility needs of those who may be eligible for PRA units but who have not received assistance yet. Property owners and service providers reported that, while some applicants have turned down units because the units did not meet their accessibility needs, the issue is not widespread.

***Residents we surveyed in PRAC properties were significantly less likely than PRA residents to report that they needed changes to their units or asked for special equipment.*** More than a third of PRA residents (35 percent) asked for changes or special equipment, compared to 16.4 percent of PRAC residents. High proportions of both groups reported they received the accommodations they asked for (81 percent for PRA, and 99 percent for PRAC).

Exhibit 5.7: Reported Accessibility Needs of Section 811 PRA and PRAC Residents

| Residents Who Reported That: | PRA N | PRAC N | PRA % | PRAC % | Difference in Means |
|---|---|---|---|---|---|
| They have either needed changes to their building or requested special equipment | 186 | 205 | 34.8% | 16.4% | **18.4%**** |
| They reported needing a change or special equipment and their case manager or property manager made the changes they requested sometimes or all the time | 32 | 19 | 81.3% | 98.6% | -17.3% |

****Indicates a statistically significant difference between PRA and the comparison group with a p-value of .05.**

**Note: PRAC results were adjusted and weighted for multiple comparisons.**

**Source: Abt analysis of Section 811 resident survey results administered in six states between January and May 2018.**

## 5.5 Integration of PRA Units within Properties

A goal of the PRA program is to house people with disabilities in properties where people with and without disabilities live. PRA grant funds provide rental subsidies in properties with no more than 25 percent of their units set aside for PRA or people with disabilities served by other housing programs. Beyond the 25 percent cap, the proportion of PRA units in a given property reflects several factors. These factors include the number of other (non-PRA) supportive housing units in the property, other property requirements or restrictions established by the grantee or the funding source for the property, and the owner's decision about how many units to set aside for PRA subsidies within the limits set by the program.

Through September 2018, state housing agencies entered into contracts with owners for an average of 10 PRA units per property. **On average for all properties with PRA units under contract, PRA units make up 10 percent of units, considerably less than the PRA program's 25-percent limit.**

The number of PRA units under contract with owners is the maximum number of units that, based on program rules and the owner's preference, can be assisted by

PRA funding at that property. The actual number of units occupied by PRA residents could be less than the number under contract for a few reasons. Not all units under contract may be available for PRA residents because they are still leased by other non-PRA tenants. Applicants may also lack interest in specific properties, resulting in fewer lease-ups to PRA residents.

Setting limits on the percentage of units set aside specifically for people with disabilities does not necessarily mean that the percentage of people with disabilities living in these properties is limited to 25 percent. According to HUD's Picture of Assisted Housing data,[30] an estimated 21 percent of HUD-assisted households include someone with some type of disabling condition, making it likely that properties will have other individuals with disabilities besides PRA residents living in them. A few property owners interviewed by the study team estimated that the percentage of residents living in their buildings with physical or mental health disabilities was closer to 50 percent.

### Resident Perspectives on Community Integration and Independence

To measure how well Section 811 residents are integrated into their communities, the survey asked residents whether they knew and talked to other people in their building and neighborhoods. Most PRA residents (82 percent) said they knew other people in their building. While only 38 percent of PRA residents say they know the other people in their neighborhood, 68 percent of PRA residents say they have spoken to other people in their neighborhood more than twice in the past month.

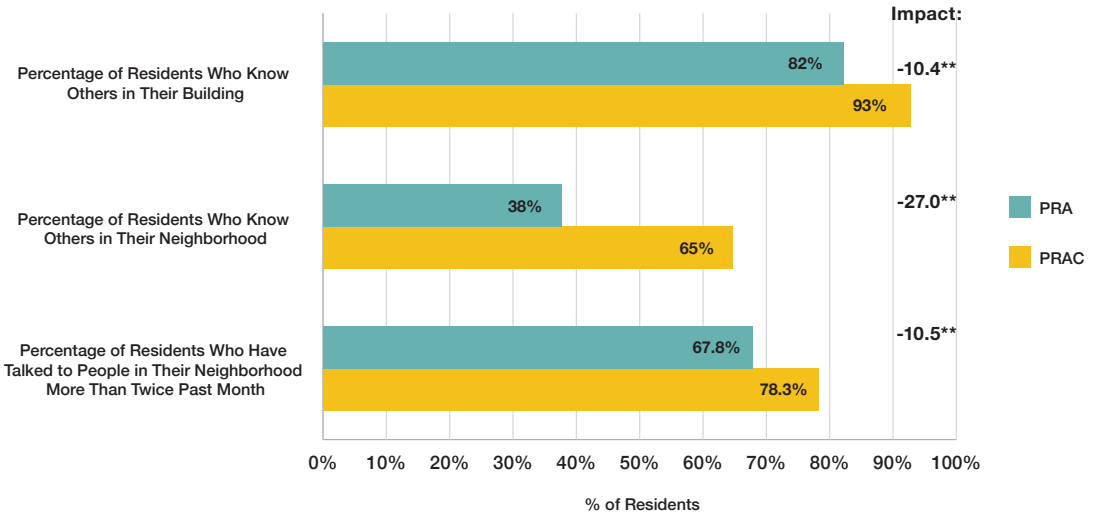
The survey also asked residents about their autonomy and independence in personal life choices. Most PRA residents (95 percent) said they could be alone when they wanted to be, and almost all (99.5 percent) said they could eat when they wanted to. The majority of PRA residents (72 percent) said they could see family and friends when they wanted to see them.

The study found significant differences in reports of community integration for PRA and PRAC residents. ***PRAC residents were also significantly more likely to report knowing others in their neighborhood (65 percent) compared to PRA residents (38 percent).*** **(See Exhibit 5.8.)** How well residents know their neighbors may be a reflection of how long residents have lived in their neighborhood. PRAC survey respondents were selected to be relatively similar to PRA residents as to how long they had lived in their unit when they were surveyed, but we did not adjust the survey results for length of tenure.

***PRAC residents were significantly more likely to say they could see their friends and family when they wanted to see them than PRA residents were, 88 percent of PRAC residents compared to 72 percent of PRA residents, a statistically significant difference.*** Compared to PRA residents, slightly fewer PRAC residents said they could be alone when they wanted to be (88.5 percent compared to 95 percent of PRA residents) or eat when they wanted to (95 percent of PRAC residents compared to 99.5 percent of PRA residents). These differences were not statistically significant, however.

[30] https://www.huduser.gov/portal/datasets/assthsg.html

## Exhibit 5.8: Section 811 Community Integration Measures




****Indicates a statistically significant difference between PRA and the comparison group with a p-value of .05.**

Note: PRAC results were adjusted and weighted for multiple comparisons.

Source: Abt analysis of Section 811 resident survey results administered in six states between January and May 2018.

# PRA and PRAC Community-Based Services

The Section 811 program, including both PRA and PRAC approaches, is a supportive housing program that seeks to ensure residents have access to high-quality affordable housing and the community-based services and supports they need to be successful tenants in the community. PRA residents are required to be eligible for Medicaid or state programs that provide home and community-based services (HCBS). As a result, PRA residents should have access to voluntary services and supports that assist them as they move into and get settled in their new homes. PRA residents should also have access to ongoing support services to help residents stay in their apartments for as long as they want to live there. As discussed in the first chapter, HUD's other housing programs for non-elderly people with disabilities also offer housing affordable to low-income renters, but residents housed in other settings may or may not have ensured access to community-based services and supports.

This chapter focuses on the community-based services that support residents in their homes. These services include both **tenancy supports** that help PRA residents apply for, move to, and remain stably housed in community-based housing and **other community-based services** that ensure residents' health and wellbeing (for example, personal care assistance, home healthcare, or transportation assistance).

To learn more about the differences between PRA and PRAC, the study team interviewed staff from PRA partnering agencies in the six study states in late 2017 and early 2018. The study team also conducted interviews with a sample of service providers who assist PRA residents as they move into their homes and who provide ongoing community-based services, as well as with a sample of property managers at properties where units are under contract for PRA. Finally, the study team surveyed a sample of PRA and PRAC residents living in the study states in 2018[31] to learn about their tenancy experiences, including access to tenancy supports and other services, and their assessments of their quality of life and health status. PRAC residents were selected to participate in the survey based on length of time in housing assistance and, to ensure that they were in areas with similar access to services, on geographic proximity.

Overall, we learned that:

- The majority of PRA and PRAC residents report receiving tenancy supports and other services that meet their needs. Overall, they report a positive experience with their home-based care, but some report gaps in services.
- PRA and PRAC residents report no significant differences in ongoing tenancy supports and community-based services received, the amount of care they receive from friends and family, and their quality of care by service providers.
- Most PRA and PRAC residents rate their quality of life and overall health as at least "okay," but significantly more PRAC residents than PRA residents rate their quality of life and overall health as "good" or "excellent."
- PRA and PRAC residents have similar rates of exit, but PRA residents are significantly more likely than PRAC residents to leave for owner-initiated reasons.

## 6.1 Availability and Use of Community-Based Services

Tenancy supports encompass a wide range of services to help people who have been living in an institution or experiencing homelessness to transition to and live independently in the community. People with disabilities or chronic conditions may need assistance in finding affordable community-based housing and moving into and establishing their new home. They may also need personal care, behavioral health support, or other ongoing arrangements to support their daily lives. PRA grant funds cannot be used to pay for services. Services are generally funded by Medicaid and provided through Medicaid waivers or programs. To ensure residents have the home- and community-based services they need, the state housing agency must partner with the agency responsible for administering Medicaid or other healthcare programs in the state to apply for PRA grant funds.

The community-based services available to PRA residents can be characterized in three phases: (1) housing locator services to help people find affordable community housing options; (2) transition services as they move

[31] The study team conducted surveys with 403 Section 811 PRA and PRAC residents between January and May 2018 in six states: California, Delaware, Louisiana, Maryland, Minnesota, and Washington. PRAC residents were selected based on how long they had lived in their units, to be similar to PRA residents, who have a shorter average tenancy.

into community housing; and (3) ongoing personal and community supports that help people live independently in the community. Community-based services initially offered in one phase may continue into the next. Exhibit 6.1 shows examples of the types of services offered within each phase.

Exhibit 6.1: The Three Phases of Community-based Services

**Types of Housing Locator Services**

- Help individuals understand and locate affordable housing in their community
- Assist with transportation to view housing options and neighborhoods
- Help individuals complete and submit housing applications
- Help individuals meet housing eligibility requirements
  - Obtain proper identification and proof of income or benefits
  - Settle outstanding utility bills
  - Correct credit reports to meet credit standards
  - Helping provide explanations for or expunge criminal records
- Help individuals appeal rejections by landlords
- Help individuals pay security deposit requirements

**Types of Transition Services**

- Assist individuals in procuring furniture or household goods
- Assist with the physical move to the new property, including packing, transportation, and unpacking
- Accompany individuals on their move-in day
- Assist with move-in paperwork, inspections, and obtaining keys to the building, unit, and/or mailbox
- Ensure needed medical equipment is delivered and set up prior to move-in
- Set up community services
  - Establish a healthcare provider
  - Transfer prescriptions to a community pharmacy
  - Apply for food and utility assistance benefits
  - Set up meal delivery
- Orient individuals to a new neighborhood

**Types of Ongoing Supports**

- **Ongoing Tenancy Supports**
  - Assistance with establishing financial services, such as a checking account
  - Assistance with developing and following a household budget
  - Prompts to follow community rules
  - Linkages to social supports that foster a sense of belonging
  - Assistance with applications for utility or food assistance
  - Mediation to resolve disputes with neighbors or property management
  - Assistance with annual recertification of income and eligibility
- **Other Community-based Services**
  - Nursing care
  - Home health aides
  - Assistance with eating, bathing, or dressing
  - Medication reminders
  - Durable medical equipment
  - Homemaker services
  - Meal preparation
  - Supported employment
  - Transportation

**Source: Abt Associates**

## Housing Locator Services

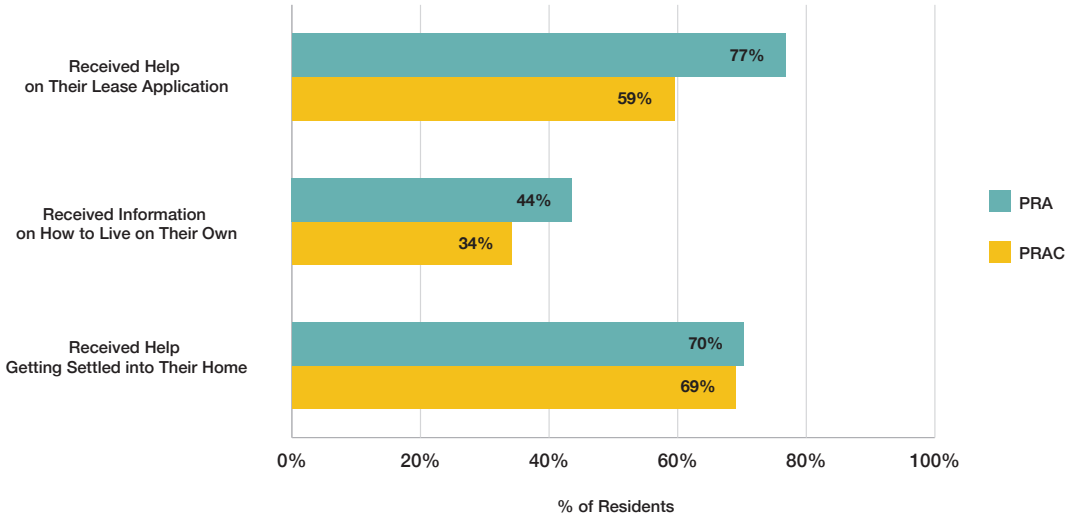
**Housing locator services help individuals find and apply for affordable community housing.** Housing locator service providers take people to view available apartments, help them complete rental applications and gather necessary documentation to support the applications, and help applicants access funds to pay security deposits.

The intensity of the housing locator assistance varies by state. For example, in Delaware, qualified nursing home residents who express an interest in moving to the community are mailed a notice from the grantee when a PRA unit becomes available. It is then the resident's responsibility to visit the apartment and complete an application. In contrast, caseworkers in Louisiana accompanied potential tenants to visit properties and helped them complete applications. In some states, property managers reported they sometimes assisted PRA applicants with completing an application if no case manager was present.

The majority of PRA and PRAC residents surveyed reported they received assistance from community-based housing locator service providers in identifying and applying for affordable housing. ***Compared to PRAC residents, significantly more PRA residents report receiving support with applying to housing. While 77 percent of PRA residents reported receiving help with their housing application to move into their current unit, only 59 percent of PRAC residents reported they received the same assistance. See Exhibit 6.2.***

Fewer than half of both PRA and PRAC residents report they looked at least one other apartment than where they currently live in their housing search: 44 percent of PRA residents and 46 percent of PRAC residents said they looked at more than one available unit. Of those who looked at more than one available apartment, 90 percent of PRA residents and 91 percent of PRAC residents said they looked at apartments in more than one neighborhood.

Exhibit 6.2: Use of Tenancy Supports by PRA and PRAC Residents




****Indicates a statistically significant difference between PRA and the comparison group with a p-value of .05.**

**Note: PRAC results were adjusted and weighted for multiple comparisons.**

**Source: Abt analysis of Section 811 resident survey results administered in six states between January and May 2018.**

## Transition Services

**Transition services begin once an applicant is approved for a specific PRA unit.** Transition services are those related to the physical move into a PRA apartment, which can include obtaining household goods, moving and unpacking, and stocking food and cleaning supplies. They also include connecting utilities and establishing independent living skills. PRA residents receive transition services mainly from community-based service providers, primarily funded by Medicaid. State, local, and charitable organizations may also provide funding for transition services in some states, but funding is limited. In rare instances, property owners may employ a service coordinator who assists residents with obtaining small furniture items or provides a starter supply of household goods. Transition service providers also often assist residents with applying for benefits such as utility assistance and SNAP (food stamps), to help support their independent living.

Funding for transition services is covered for Medicaid MFP participants but not for other enrollees. Service providers we interviewed told us that outfitting an apartment is one of their major expenses and that funding for these items is always a patchwork, cobbled together through a variety of sources. Service providers in the six study states generally have excellent connections to state and county social services agencies, as well as to private philanthropic entities that assist with transitions to community-based living. Many PRA residents do not own furniture or other household goods such as cooking utensils or sheets and towels. For example, in parts of Minnesota, a county agency offers support with buying furniture. In some states, resources to assist residents with the physical move to a PRA residence are scarce. A property manager from Delaware said, ***"When it comes to the physical moving, boxing up everything…there is nothing…. They have to hire movers and a lot of them can't afford it."*** Some transition managers are extremely resourceful and leverage all available federal, state, county, and philanthropic resources to help residents move in and set up their homes. Other transition managers were frustrated by an inability to fill certain needs, such as assisting with food stamp eligibility or procuring household cleaning products.

Similar percentages of PRA and PRAC residents surveyed report receiving help with getting settled into their home: 70 percent of PRA residents and 69 percent of PRAC residents. More PRA residents (44 percent) reported receiving information on how to live on their own when moving into their unit than PRAC residents (34 percent), but this difference is not statistically significant (Exhibit 6.2).

## Ongoing Tenancy Supports

**Ongoing tenancy supports are personal and community supports that help an individual continue to live independently in his or her home.** Ongoing personal and community supports include two kinds of services: 1) tenancy supports that assist individuals with their responsibilities as tenants; and 2) community-based long-term services and supports that help individuals with disabilities with personal care needs, transportation, or other community linkages.

Once residents are established in their PRA units, the frequency of their interactions with community and property-based service providers varies widely. The type and intensity of service provider interaction is, in large part, based on individual residents' established service needs. Each individual who is served by Medicaid or a similar state plan services typically has a case manager who develops a service plan specifically for that individual. The service plan identifies the services that the individual needs and is eligible to receive. Individuals in the MFP program are eligible to receive case management and tenancy supports for 12 months after they move into their units.

However, some services may be limited by what is allowable under a particular Medicaid waiver or by available community resources. For example, service providers in some communities report a shortage of home health aides or other home and community-based providers.

Similar percentages of PRAC and PRA residents report needing help with medication, meals, and bathing. Thirty percent of PRA residents and 27 percent of PRAC residents report needing help taking medication. Similarly, 29 percent of PRA residents and 26 percent of PRAC residents report needing help preparing meals and snacks, and 22 percent of PRA residents and 19 percent of PRAC residents report needing help with bathing.

The majority of PRA and PRAC residents report receiving ongoing tenancy supports. More than half of PRA (52 percent) and PRAC residents (55 percent) report receiving ongoing help with activities like paying bills, resolving conflicts with landlords or neighbors, and following the rules of the property.

In addition to paid caregivers, 44 percent of PRA residents also report receiving additional weekly help from family and friends, compared to 54 percent of PRAC residents. Respondents mentioned that family or friends may run errands or shop for groceries for them. Family members who live with the respondent may provide daily help with meals, bathing, or dressing. PRA residents report receiving more hours of help from family and friends than PRAC residents receive. Of residents who receive support from family and friends, 44 percent of PRA residents receive at least 5 hours of such assistance per week, compared to only 27 percent of PRAC residents. The difference in hours of week of assistance is not statistically significant.

## 6.2 Resident Experience with Community-based Services and Alignment with Needs

### Resident Experience with Community-based Services

Most of the PRA residents who reported receiving help with everyday activities[32] (68 percent of PRA residents surveyed), reported positive experiences with the help they received. Most PRA residents with paid caregivers reported that the people who work with them are knowledgeable about the support they need (more than 94 percent[33]), that they come to work when they are supposed to most of the time (91 percent), and that they treat them the way they want to be treated (89 percent).

PRAC residents also rated their experience with people who work with them highly. The difference is not statistically significant. Most PRAC residents report that the people who work with them know the services they need (89 percent), that they treat them the way they want to be treated (80 percent), and that they show up to work on time most of the time (78 percent).

The survey did reveal that a small share of PRA and PRAC residents are not receiving the services they need. Only 12 percent of PRA residents reported that they need more help with ongoing tenancy than they are currently getting. While more PRAC residents report needing more help with tenancy support than they are getting (26 percent), this difference is not statistically significant.

Only a small number of residents reported going without the help they need with medication, meals, or bathing. Similar percentages of PRA and PRAC residents report going without the help they need, with one exception. ***A significantly higher percentage of PRA residents who report needing help taking their medications have gone without taking medication when needed (64 percent), compared to only 15 percent for PRAC residents.***

### Quality of Life and Health Status

The study team asked PRA and PRAC residents to rate their quality of life and overall health as "excellent," "good," "okay," or "poor." **The majority of PRA residents (58 percent) rate their quality of life as either excellent or good, and 42 percent rate their overall health as excellent or good.** While the majority (87 percent) of residents report that their mental or emotional health is excellent, good, or okay, the majority of PRA residents (69 percent) also report that they had symptoms of mental or emotional health conditions in the past week.

[32] As defined as a response of "Yes," "No," "Don't know," or "Refuse" to the question of "Do the people who work with you know what kind of help you need with everyday activities, like getting ready in the morning, getting groceries, or going places in your community?"

[33] Exact percentage not shown due to small sampling restrictions.

***More PRAC residents than PRA residents reported their overall quality of life and overall emotional and mental health as "excellent" or "good." Almost three-fourths of PRAC residents (73 percent) report that their overall quality of life is "excellent" or "good," compared to 58 percent of PRA residents, a statistically significant difference. (See Exhibit 6.3).***

***Two-thirds of PRAC residents (67 percent) report their mental and emotional health as excellent or good, compared to 49 percent of PRA residents, also a statistically significant difference.*** Most residents also report periodic issues with their mental or emotional health. Approximately two-thirds of both PRA (69 percent) and PRAC residents (64 percent) report that they have been bothered by "feeling sad, blue, nervous, or cranky" at least sometimes in the past week.

Exhibit 6.3: Statistically Significant Differences in Reported Health and Quality of Life of Section 811 Residents

| Percentage of Residents Who Report | PRA N | PRAC N | PRA % | PRAC % | Difference in Means |
|---|---|---|---|---|---|
| Their quality of life is excellent or good | 186 | 206 | 58.1% | 72.7% | **-14.7%**** |
| Their mental or emotional health is excellent or good | 183 | 207 | 49.2% | 67.2% | **-18.1%**** |

****Indicates a statistically significant difference between PRA and the comparison group with a p-value of .05.**

Note: The PRAC survey results were adjusted and weighted based on demographic and healthcare utilization characteristics of PRA and PRAC residents.

Source: Abt analysis of Section 811 PRA Resident Survey administered January through May 2018 in the six study states.

## 6.3 Housing Tenancy and Program Exits

A goal of affordable, community-based housing is to avoid unnecessary institutionalizations of people with disabilities, and to allow people to live successfully in the community with supports. The PRA option may lead to longer stays for residents than similar programs that assist non-elderly people with disabilities, or PRA residents may have different reasons for leaving the program. Using HUD administrative data, the study team compared rates of program exit and reasons for exits for PRA and PRAC residents.

As described in the first chapter, PRA residents have had fairly short durations of tenancy as a result of the recency and slow implementation of the PRA program. **On average, as of September 2018, PRA residents had lived in their housing for a little over a year.** The PRA residents with the longest tenure had been housed for less than four years; some 45 percent of PRA residents had been assisted for less than a year. Not surprisingly, the average length of tenancy of the PRAC group is much longer than for PRA residents. PRAC residents on average had lived in their housing for 7 years.

According to grantee-reported data, 193 PRA households had exited their unit in the first 3 years of the PRA program. PRA tenants initiated 27 percent of these exits, and owners initiated 30 percent (Exhibit 6.4). Of the 51 households that left of their own accord, 36 exited for other housing, and 15 left for other, unknown reasons. Of the 59 exits that were owner-initiated, 24 were for nonpayment of rent and 35 were for other lease violations. An additional 19 percent of residents died, and 8 percent moved to institutional care.

Exhibit 6.4: Reasons Tenants Had Left PRA Housing as of September 2018

| Reason | PRA N | PRA % |
|---|---|---|
| Tenant initiated–left for other housing | 36 | 19% |
| Tenant initiated–other | 15 | 8% |
| Owner initiated–nonpayment of rent | 24 | 12% |
| Owner initiated–other | 35 | 18% |
| Death | 37 | 19% |
| Institutionalized | 16 | 8% |
| Unit transfer FY12 to FY13 | <10[a] | <6%[a] |
| Unknown/disappeared | <10[a] | <6%[a] |
| Other | 17 | 9% |
| **Total** | **193** | **100%** |

[a] Exact values are not shown due to small sample reporting restrictions.

Source: Abt analysis of 2015-2018 Section 811 PRA Quarterly Reports.

Using HUD administrative data, the study team compared program exit rates and reasons for exiting for PRA and PRAC residents.[34] PRA and comparable PRAC residents leave the Section 811 program at similar rates. For both PRA and PRAC, in the first 3 years after they moved in, residents exited the program at a rate of just over 20 percent per year. After the third year, the rate of exit leveled off for both groups.

Because PRAC residents in our sample have, on average, earlier move-in dates than PRA residents and thus have a longer period over which to exit, PRAC residents who exited had been assisted by PRAC for an average of 17 months. Through September 2018, PRA residents who exited had been assisted by PRA for an average of 11 months.

Based on reason-for-exit codes in TRACS administrative data, PRA residents are almost six times more likely to exit for nonpayment of rent (owner-initiated) than are comparable PRAC residents. We also find suggestive evidence that the likelihood of tenant-initiated exits may be somewhat lower in PRA. Our analysis indicates such exits are half as likely for PRA residents as compared to PRAC residents, but the difference is not statistically significant. The analysis did not find any statistical differences in the likelihood of exits due to death or primary householder or due to other owner-initiated reasons besides nonpayment of rent.

Exhibit 6.5 shows hazard ratios for reasons for exiting the program. Each row is a separate Cox model regression reporting the coefficient on PRA residents relative to PRAC. For example, the hazard ratio of 5.74 for owner-initiated nonpayment of rent shows that PRA residents are 5.74 more likely to exit for nonpayment of rent than PRAC residents. In this exhibit, the only statistically significant differences in reasons for exits are for owner-initiated nonpayment of rent and for tenant-initiated reasons. However, this large difference in hazards for PRA corresponds to a very low prevalence, on the order of half a percent a year (compared to about one in a thousand for PRAC). In contrast, the point estimate on tenant-initiated (other) reasons corresponds to a larger gap in prevalence of exit, with exits on the order of 14 percent a year for PRA and 7 percent a year for PRAC; however this difference could be due to chance (that is, the hazard ratio does not differ statistically from 1).

[34] We estimated a Cox proportional hazard model of program exit. This model uses the same coefficients and propensity score weighting approach as the other impact models. The model estimates the likelihood of exiting the program taking into account the varying lengths of time a resident has already received assistance in addition to individual baseline demographic and health characteristics. Coefficients of the model are interpreted as hazard ratios, which in our model indicate the ratio of share of PRA residents expected to exit the program in a given month to the share of PRAC residents expected to exit that program in a given month. Hazard ratios greater than one reflect higher likelihood of exit for PRA as compared to PRAC, while ratios less than one reflect a lower likelihood of exit.

Exhibit 6.5: Hazard Ratios for Reasons for Program Exits for PRA and PRAC Residents, 2013–2018

| Exit Definition | Hazard Ratio | Standard Error | P-Value |
|---|---|---|---|
| Owner initiated for nonpayment of rent | 5.74 | 1.84 | 0.00 |
| Owner initiated—other | 0.99 | 0.24 | 0.95 |
| Tenant initiated | 0.50 | 0.09 | 0.00 |
| Death | 0.90 | 0.25 | 0.69 |

**Source: Abt analysis of program exit data from TRACS for PRA and PRAC residents as of September 2018.**

# Healthcare Conditions and Utilization

The PRA program provides stable, affordable housing, with connections to Medicaid or state programs that provide home and community-based services. HUD and HHS hypothesize that this housing and services model will decrease unnecessary institutionalization, improve access to healthcare, and reduce the use of emergency services. To assess whether that will happen, in Chapters 3 through 6, we looked at whom the program is serving, what types of properties and neighborhoods they live in, and the tenancy supports they need and receive. In this chapter, we look at PRA residents' use of healthcare services before and after being assisted by PRA, including how use during PRA tenancy differs from healthcare use by the study's comparison groups.

We found more than two-thirds of PRA residents had a mental health condition, and this was higher than for people in the NED, other HUD, and non-HUD groups. PRA residents were also more likely than the other groups to have a chronic or disabling condition and had higher rates of healthcare utilization in the pre-occupancy period—that is, before weighting the comparison groups to match them based on pre-occupancy healthcare utilization.

Propensity score weighting is used to calculate averages in a way that places more importance on individuals in the comparison group with characteristics similar to the individuals in the PRA program, which makes the comparison group's weighted averages representative of the PRA group's averages had they not been assigned to PRA units. After propensity score weighting, we found few statistically significant differences in the use of expensive emergency or institutional long-term care services when we compared PRA residents' healthcare utilization patterns after moving-in to similar people living in other settings. In less than 1 year of follow-up after moving in, PRA residents tended to use inpatient hospital, emergency department, medical transportation, and inpatient long-term care services at lower rates than similar individuals in the comparison groups. In contrast, we found that PRA residents were more likely to use personal care attendant or case management services. Because the comparison groups have been matched on individual characteristics, including their healthcare utilization in 2015, lower use of medical services may reflect greater access to or coordination of services, while the greater use of personal care attendants and case management services may reflect a history of unmet need prior to PRA tenancy. **Since few of the estimated differences were statistically significant, some of the observed differences could be due to chance.**

To examine healthcare characteristics and utilization patterns, the study team obtained 2 years (2015–2016) of medical claims and managed care encounter data from the Medicaid agencies in the six study states.[35] We sent unique identifiers for the members of the PRA and the three HUD comparison groups (PRAC, NED, and other HUD) to the Medicaid agencies, who then linked the PRA resident identifiers to data on Medicaid enrollees and to three HUD comparison groups. We also obtained Medicaid data from each state for a sample of Medicaid enrollees who were not assisted by HUD programs. For brevity, this comparison group is referred to as the "non-HUD" group.

We used the 2016 Medicaid data to examine PRA residents' healthcare utilization for those who moved in during 2016, and for individuals in the HUD comparison groups who moved into their units between 2013 and 2016.[36] Exhibit 7.1 shows the number of PRA residents and individuals in the comparison groups.

[35] These were the most recent data available for all states. Two states, Minnesota and Washington, provided claims and encounter data for 2 years and 6 months (from January 2015 through June 2017).

[36] The earliest year that a PRA resident had moved into their unit was 2013. Additionally, we also include individuals in the PRA and comparison groups who live in Minnesota and Washington and moved in during the first half of 2017 since they could be linked to post-occupancy data on utilization.

Exhibit 7.1: Healthcare Utilization Comparison Samples

| State | PRA | | PRAC | | NED | | Other HUD | | Non-HUD | |
|---|---|---|---|---|---|---|---|---|---|---|
| | N | % | N | % | N | % | N | % | N | % |
| California | 35 | 14% | 106 | 9% | <10[a] | <4%[a] | 61 | 9% | 814 | 1% |
| Delaware | 24 | 9% | 122 | 11% | <10[a] | <4%[a] | 103 | 16% | 4,987 | 8% |
| Louisiana | 61 | 24% | 223 | 20% | 44 | 16% | 110 | 17% | 40,000 | 68% |
| Maryland | 19 | 7% | 168 | 15% | 0 | 0% | 78 | 12% | 5,461 | 9% |
| Minnesota | 68 | 26% | 235 | 21% | ≥10 | ≥4% | 133 | 21% | 2,183 | 4% |
| Washington | 50 | 19% | 288 | 25% | 209 | 76% | 161 | 25% | 5,701 | 10% |
| **Total** | **257** | | **1,142** | | **275** | | **646** | | **59,146** | |

[a] Exact percentages are not shown due to small sample reporting restrictions.

Notes: Since the non-HUD group was not linked to HUD administrative data and data on demographic characteristics came from Medicaid data, it was necessary to restrict both the PRA and non-HUD sample to individuals enrolled in Medicaid for at least 1 month in 2015. This dropped less than 11 PRA residents from analyses comparing PRA residents to the Non-HUD sample in Delaware, Minnesota, Washington, and Louisiana.

Sources: Abt Associates analysis of TRACS and PIC household data from the quarter ending on March 31, 2018; and Medicaid claims and encounter data for 2015-2016 (June 2017 for Minnesota & Washington) received from the State Medicaid agencies for California, Delaware, Louisiana, Maryland, Minnesota, and Washington.

## 7.1 Healthcare Conditions and Prior Healthcare Utilization

PRA residents have a range of disabilities and chronic conditions and therefore varying service needs and rates of healthcare utilization. In this section, we present 2015 Medicaid data to describe residents' rates of chronic and disabling conditions and healthcare utilization for the period prior to receiving PRA assistance. To understand the characteristics of PRA residents relative to the other study groups, we examined these rates in the comparison groups prior to weighting the groups to match them to the PRA residents. In this analysis, we found that the prevalence of chronic and disabling conditions tended to be higher among PRA residents than in the comparison groups. Likewise, PRA residents tended to utilize healthcare services at higher rates than individuals in the comparison groups. Greater prevalence of chronic and potentially disabling conditions among PRA residents could be related to the target groups the states selected for their PRA programs. PRA is more explicitly targeting people leaving institutions or leaving homelessness than other HUD programs in our study. The requirement that PRA residents must be eligible to receive Medicaid HCBS or similar services may also be playing a role. Although PRAC residents also have coordinated access to services, there are no such Medicaid eligibility requirements in PRAC or NED or the other HUD programs.

### Chronic and Potentially Disabling Conditions

We used diagnoses listed on 2015 Medicaid claims and encounter data[37] and applied criteria defined by the Centers for Medicare & Medicaid Services (CMS) to identify individuals with any of 27 common chronic conditions or 33 other chronic or potentially disabling conditions.[38] We grouped the 60 chronic and potentially disabling conditions into 19 categories. For example, we grouped depression, anxiety, post-traumatic stress, bipolar personality, and psychotic disorders into one category related to mental health. Hip fractures, osteoporosis, and rheumatoid arthritis were categorized as musculoskeletal, while chronic kidney disease, diabetes, and hypothyroidism were categorized as endocrine and renal. The full list of conditions for each category is listed in Appendix B.

**More than half of PRA residents have mental health conditions (71 percent) and musculoskeletal conditions (61 percent.)** Just under one-third (32 percent) have endocrine or renal conditions, and a little less than one-quarter have pulmonary conditions (24 percent) (Exhibit 7.2). Prior to weighting the comparison groups to match them to the PRA residents, PRA residents were most similar to PRAC residents in the prevalence of chronic and disabling conditions. Only cardiovascular conditions and other conditions (including fibromyalgia, ulcers, or viral hepatitis) were more

[37] Managed Care Organizations contracted with a Medicaid program submit "encounter" claims with the same information about the healthcare service provided, the treating provider, and other patient-level detail found in fee-for-service claims but, for some states, the encounter data does not include information on reimbursement to providers.

[38] https://www.ccwdata.org/web/guest/condition-categories

prevalent among PRA residents than PRAC residents. Developmental disorders, mental health conditions, and mobility impairments were more prevalent among PRA residents than in the other HUD group. There was no difference in the prevalence of cancer, HIV/AIDS, leukemia and lymphoma, liver conditions, neurological disorders, or sensory impairments between PRA residents and any of the comparison groups. **Nearly all of the other 13 categories of conditions were more prevalent among PRA residents than among individuals in the NED and non-HUD groups**.

Exhibit 7.2: Unweighted Comparisons of Chronic and Potentially Disabling Conditions among PRA Residents and Individuals in the Comparison Groups Enrolled in Medicaid in 2015 and 2016

| Category/Measure | PRA (N=251) Percent | PRAC (N=1,112) Percent | NED (N=268) Percent | Other HUD (N=624) Percent | Non-HUD (N=59,146) Percent |
|---|---|---|---|---|---|
| Cancer | <4%[a] | 1.3% | <4%[a] | <2%[a] | 1.1% |
| Cardiovascular | 15.9% | **11.0%**** | **4.9%**** | 13.8% | **5.4%**** |
| Developmental disorders or disabilities | 16.7% | 21.7% | **7.1%**** | **7.1%**** | **10.7%**** |
| Endocrine and renal | 31.9% | 27.0% | **20.5%**** | 26.8% | **15.3%**** |
| HIV/AIDS | <4%[a] | 3.6% | <4%[a] | 2.9% | 1.9% |
| Leukemia and lymphomas | <4%[a] | <1%[a] | <4%[a] | <2%[a] | 0.2% |
| Liver conditions | 4.8% | 3.6% | <4%[a] | 3.8% | 2.2% |
| Mental health | 70.9% | 67.8% | **40.7%**** | **47.8%**** | **39.4%**** |
| Mobility impairments | 6.8% | 5.6% | **<4%[a]**** | **2.2%**** | **1.5%**** |
| Musculoskeletal | 60.6% | 62.1% | **69.0%**** | 58.8% | **28.2%**** |
| Neurological disorders | 13.9% | 16.8% | 10.8% | 9.5% | 10.0% |
| Obesity | 13.5% | 10.1% | **6.0%**** | 14.1% | **6.5%**** |
| Ophthalmic | 4.8% | 5.5% | 4.5% | 6.1% | **1.7%**** |
| Other chronic conditions [b] | 45.4% | 41.5% | **26.9%**** | 45.2% | **27.1%**** |
| Other conditions [c] | 24.7% | **18.7%**** | 20.5% | 19.7% | **15.9%**** |
| Peripheral vascular disease | 4.8% | 4.0% | **<4%[a]**** | 3.0% | **1.4%**** |
| Pulmonary | 23.5% | 18.1% | **13.4%**** | 23.4% | **12.0%**** |
| Sensory impairment | **<4%[a]** | 3.1% | <4%[a] | 1.8% | 0.8% |
| Tobacco use disorders | 17.5% | 13.4% | **<4%[a]**** | 13.0% | 15.6% |

****Statistically significant difference compared to PRA residents at the 5 percent level ($p<.05$).**

[a] Exact percentages not shown due to small sample reporting restrictions.

[b] Includes anemia, hyperlipidemia, hypertension, and benign prostatic hyperplasia.

[c] Includes fibromyalgia, pressure or chronic ulcers, and viral hepatitis.

Notes: PRA residents moved in during 2016 (or first two quarters of 2017 for Minnesota & Washington); PRAC, NED, and other HUD residents moved into their unit during 2013-2016 (or first two quarters of 2017 for Minnesota & Washington). Non-HUD individuals were enrolled in Medicaid for at least part of 2015 and 2016.

Sources: Abt Associates analysis of TRACS and PIC household data from the quarter ending on March 31, 2018; and Medicaid claims and encounter data for 2015-2016 (June 2017 for Minnesota & Washington) received from the State Medicaid agencies for California, Delaware, Louisiana, Maryland, Minnesota, and Washington.

## 7.2 PRA Impacts on Healthcare Utilization

Using the Medicaid data from the study states, we created seven measures to examine the use of "acute-care" services (that is, hospital admissions, emergency department visits, and medical transportation) and three measures related to the long-term use of institutional services. Some of the measures are subsets of other measures (for example, 30-day readmission can only

follow admission, so anyone who was not admitted is not at risk of readmission).

Because the PRA program requires residents to be eligible for Medicaid or state-funded HCBS, we were interested in differences in the "take-up" of HCBS between PRA residents and individuals living in other settings. There was not a way to reliably and consistently identify HCBS in every state's data, and the bundle of services offered varies by state. To proxy HCBS use, we created two binary measures for whether PRA residents or the comparison groups used any personal care attendant (PCA) or case management services, post-occupancy. PCA services are designed to help persons with disabilities with everyday activities (such as bathing or dressing) and are typically services included in Medicaid HCBS programs. Case managers coordinate the various services offered in Medicaid HCBS programs. Case management services may also be offered to a broader population, for reasons unrelated to HCBS for people with disabilities.

We compared average rates of healthcare utilization among PRA residents and the comparison groups using the following measures:

- Number of inpatient hospital admissions (per quarter)
- Number of inpatient days (per quarter)
- Number of 30-day readmissions to a hospital (per quarter)
- Number of inpatient hospital admissions for mental health conditions (per quarter)
- Number of emergency department visits (per quarter)
- Number of emergency department visits not resulting in inpatient admission (per quarter)
- Number of emergency and non-emergency medical transportation events (per quarter)
- Number of long-term inpatient days (per quarter)[39]
- Number of admissions for long-term inpatient care (per quarter)
- Any admission for long-term inpatient care (yes/no)
- Any use of personal care attendant services (yes/no)
- Any use of case management services (yes/no)

To calculate these measures, we used the 2016 Medicaid data to examine PRA residents' healthcare utilization for those who moved in during 2016 and for people in the PRAC, NED, and other HUD comparison groups who moved into their units between 2013 and 2016.[40,41] We accounted for the number of months in 2016 that PRA residents were enrolled in Medicaid, after they moved into their PRA unit, by calculating individual utilization rates as the number of events per quarter (that is, three months).[42,43] The 2015 Medicaid data were used to weight the comparison groups to match PRA residents based on various chronic and disabling conditions and prior rates of healthcare utilization. HUD administrative data (or Medicaid data for the non-HUD group) were used to match based on demographic characteristics.

We limited this comparison to individuals who are similar to PRA residents in terms of race and ethnicity, gender, age, any dependents, income, rent, prior Medicaid enrollment, chronic and disabling conditions, and prior healthcare utilization,[44] so that differences in population characteristics would not be driving the results. In the figures below impacts that were statistically significant either at the 1-percent or 5-percent levels, before adjusting for multiple hypothesis testing, are shown with an asterisk **(* for significance at the 10-percent level, ** for significance at 5-percent level, and *** for significance at the 1-percent level).**[45]

**After we adjusted for multiple comparisons, however, the only differences that are statistically significant are those comparing PRA residents to otherwise similar Medicaid enrollees not receiving HUD assistance. Therefore, some of the observed differences discussed in this section could be due to chance, and some relatively large differences may be reflecting chance variation in small samples. The**

[39] We use the term "long-term inpatient days/care" to refer to all inpatient admissions lasting longer than 28 days, for any reason other than hospice or substance abuse, and regardless of the type of provider (for example, nursing facility, acute care hospital, long-term care hospital, inpatient rehabilitation facility, intermediate care facility, and so on). We could not confidently distinguish the type of inpatient provider from the claims in all six study states, therefore we could not identify individuals admitted to a nursing facility or other type of facility with the specific intention of residing there to receive "long-term care."

[40] We also include individuals in the PRA and comparison groups who live in Minnesota and Washington and moved in during the first half of 2017 since they could be linked to post-occupancy data on utilization.

[41] The earliest year that a PRA resident had moved into their unit was 2013.

[42] We calculated the rates as the total number of events of interest, divided by the number of months in the period, multiplied by three. For the non-HUD group, we examined their utilization in 2016 accounting for the number of months they were continuously enrolled in Medicaid.

[43] The average number of months of follow-up in 2016 (and 2017 for Washington and Minnesota residents) for PRA residents was 6.8 months, 12.0 months for PRAC residents, 15.6 months for the NED group, 11.8 months for the other HUD group, and 9.4 months for the non-HUD group.

[44] The non-HUD group could not be matched to PRA residents based on any dependents, income, or rent since they were not linked to HUD administrative data.

[45] We adjusted p-values using the Benjamini-Hochberg multiple testing correction to understand how likely any statistically significant impact estimates were due simply to chance.

**housing situation is unknown for individuals in the non-HUD group and may include people who receive housing assistance from sources other than HUD.**

Detailed descriptions of the variables, comparison groups, and methodology used in the analysis below are provided in Appendix B.

## Prior Healthcare Utilization of PRA Residents and the Comparison Groups

We compared average rates of healthcare utilization among PRA residents before they were assisted by PRA to average rates of utilization among comparison groups, prior to weighting them to match them to the PRA residents. The PRA group tended to utilize healthcare services more often than the comparison groups prior to being assisted by PRA, possibly reflecting their greater prevalence of chronic and disabling conditions and lack of appropriate and stable housing. Prior to PRA assistance, residents enrolled in Medicaid during 2015 utilized inpatient hospital services, emergency department services, and medical transportation services more often than people in the PRAC, NED, other HUD, and non-HUD groups. As expected, given the states often target PRA units to people leaving institutions and these people represent more than a quarter of PRA residents assisted between 2015 and 2018, they also used long-term inpatient care more often than all comparison groups prior to PRA assistance.[46]

Exhibit 7.3: Unweighted Comparisons of Healthcare Utilization, 2015 (prior to moving in for PRA residents)

| Category Measure | PRA (N=251) Mean | PRAC (N=1,112) Mean | NED (N=268) Mean | Other HUD (N=624) Mean | Non-HUD (N=59,146) Mean |
|---|---|---|---|---|---|
| Days admitted to an inpatient hospital, per quarter | 1.98 | 0.87 | **0.16**** | **0.38**** | **0.56**** |
| Number of inpatient hospital admissions, per quarter | 0.18 | **0.09**** | **0.03**** | **0.06**** | **0.07**** |
| Number of 30-day readmissions to a hospital, per quarter | 0.05 | 0.02 | **0.004**** | **0.01**** | **0.01**** |
| Number of inpatient hospital admissions for mental health conditions, per quarter | 0.08 | 0.03 | **0.01**** | **0.01**** | **0.03**** |
| Number of emergency department visits, per quarter | 1.11 | **0.49**** | **0.27**** | **0.44**** | **0.66**** |
| Number of emergency department visits not resulting in inpatient admission, per quarter | 0.96 | **0.41**** | **0.25**** | **0.38**** | **0.62**** |
| Number of emergency and non-emergency medical transportation events, per quarter | 1.96 | 1.51 | **0.48**** | 1.33 | **0.39**** |
| Days of long-term inpatient care, per quarter | 8.42 | **1.35**** | **0.82**** | **0.32**** | 5.33 |
| Number of admissions for long-term inpatient care, per quarter | 0.05 | **0.01**** | **0.01**** | **0.004**** | **0.02**** |
| Any admission for long-term inpatient care | 11.6% | **2.5%**** | **<4%[a]**** | **<2%[a]**** | **4.8%**** |
| Any use of personal care attendant services | 10.3% | **15.4%**** | 11.9% | 12.0% | **3.1%**** |
| Any use of case management services | 19.5% | 20.7% | **4.9%**** | **10.7%**** | **3.7%**** |

****Statistically significant difference compared to PRA residents at the 5 percent level ($p<.05$).**

**[a] Exact percentages not shown due to small sample reporting restrictions.**

**Notes: PRA residents moved in during 2016 (or first two quarters of 2017 for Minnesota & Washington). PRAC, NED, and other HUD residents moved into their unit during 2013-2016 (or first two quarters of 2017 for Minnesota & Washington). Non-HUD individuals were enrolled in Medicaid for at least part of 2015 and 2016. We could not identify personal care attendant services using Maryland Medicaid fee-for-service claims or encounter data, thus Maryland was dropped from comparisons of personal care attendant use.**

**Sources: Abt Associates analysis of TRACS and PIC household data from the quarter ending on March 31, 2018; and Medicaid claims and encounter data for 2015.**

[46] This result is also partly due to inclusion criteria for the sample. A proportion of individuals in the PRAC, NED, and other HUD groups had moved into their residences prior to 2015 so were less likely to have used long-term inpatient care in 2015.

Prior to being assisted by PRA, PRA residents were somewhat less likely than PRAC residents to use PCA services, more likely than the non-HUD group, and no more likely than the NED and other HUD groups. The PRAC and NED programs target individuals with disabilities who may need PCA or similar support services to live independently in the community, while the other HUD and non-HUD sample is more diverse. Prior to PRA tenancy, the PRA residents were no more likely than PRAC residents to use case management services, but more likely to use these services than the NED, other HUD, and non-HUD groups.

### Early PRA Tenancy Findings

We found that after less than 1 year of being assisted by PRA, PRA residents tended to use inpatient hospital, emergency department, and medical transportation at lower rates than similar individuals in the PRAC, NED, and non-HUD groups, as well as to be less likely to have long-term institutional stays. The opposite pattern was observed with respect to the other HUD group. Few of the estimated differences were statistically significant, however. That is, some of the observed differences could be due to chance, including some relatively large differences that may be reflecting chance variation in small samples.

We also found that PRA residents were approximately 5 to 10 percent more likely to use PCA or case management services than similar individuals in each of the comparison groups. PRA residents were 20 percent more likely than the non-HUD group to use case management services. These results most likely reflect higher rates of use of HCBS by PRA residents since, unlike the other HUD programs, they are required to be eligible for services, and PRA grantees and their partners work to make sure that the residents can access these services. The traditional PRAC program is similar to the PRA program in that it provides stable, affordable housing with structured access to services. In contrast, the NED voucher program and other HUD housing programs provide rental assistance but with no formal provisions for coordinated access to services.

**This analysis of healthcare utilization rates of PRA residents suggests that the PRA program could have a substantive long-term impact on healthcare utilization in a population with many unmet healthcare needs.** We cannot draw definitive conclusions, however, because of the absence of statistically significant differences. The 1-year period we were able to observe after PRA residents moved in is likely too short to detect or attribute changes in patterns of healthcare utilization to the PRA program, particularly for rare outcomes like transitions to long-term care institutions. Additionally, weighting and regression models cannot adjust for unobserved factors that influence rates of healthcare utilization that could differ between PRA residents and the comparison groups, including Medicaid eligibility requirements. Although we match the comparison group to PRA residents based on 60 different types of chronic and disabling conditions, the groups may still differ with respect to the severity of those conditions and overall cognitive or functional status.

**In addition, while many people with disabilities receiving HUD assistance are dual-enrolled in Medicaid and Medicare, we were only able to measure post-occupancy utilization using Medicaid claims and managed care encounter data collected from the state Medicaid agencies.** Medicare is the primary payer for hospitalizations, physician services, post-acute care services, hospice care, and prescription drugs among dual-enrolled individuals. Medicaid only pays for specific services not covered by Medicare and sometimes covers the cost of premiums, deductibles, co-pays or co-insurance (benefits vary across states). While the Medicaid data do contain “crossover claims” (a claim billed to Medicaid for the Medicare deductible or coinsurance), payment policies vary by state and we cannot be certain that we captured services that were entirely paid by Medicare. Thus, it is likely we have underestimated healthcare utilization by PRA residents and the comparison groups. Moreover, about 20 percent of the PRA residents were dual-enrolled in 2016 (they had one or more crossover claims) while between 40 and 50 percent of PRAC, NED, and other-HUD groups were dual-enrolled. Although we matched the comparison groups to PRA residents based on likely determinants of dual-enrollment (disability status, prior utilization rates, and income levels), we still may have under or overestimated the impact of PRA on healthcare utilization since being assisted by PRA, to some degree.

## 7.3 Comparison of Healthcare Utilization for PRA Residents and Each Comparison Group

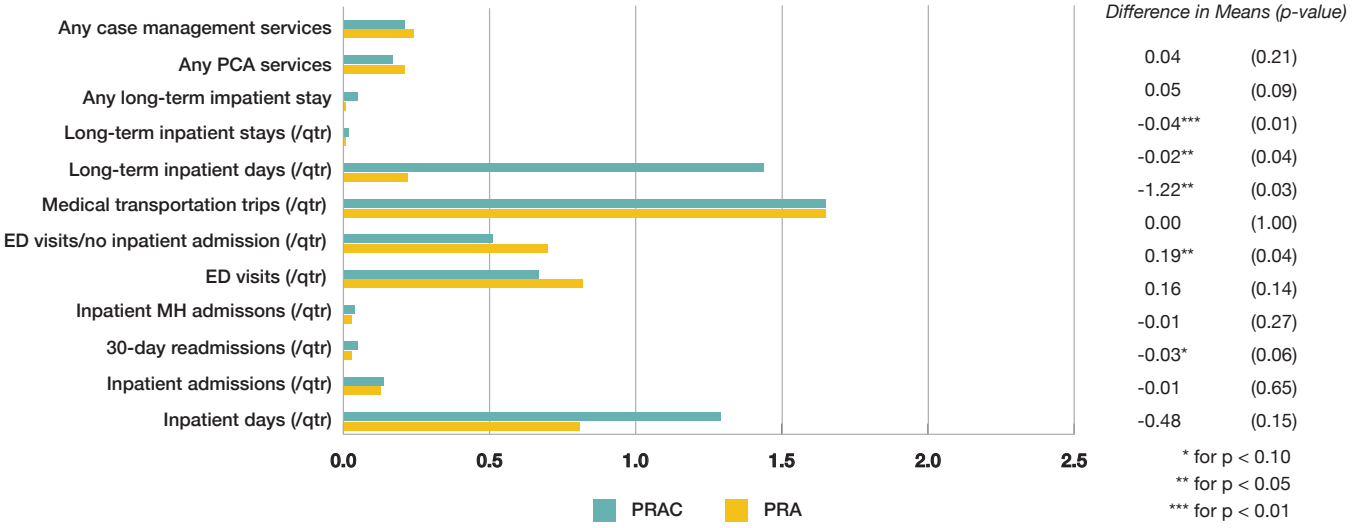
To assess the impacts of PRA on residents’ healthcare utilization, we compare PRA residents’ post-occupancy healthcare utilization rates in 2016 to those of people in the PRAC, NED, other HUD, and non-HUD groups after weighting the comparison groups to match the PRA residents based on prior rates of healthcare utilization and other characteristics.

## PRA and PRAC Comparison

The traditional PRAC program is similar to the PRA program in that it provides stable, affordable housing with coordinated access to services. We found no statistically significant differences between PRA and PRAC residents with respect to the number of inpatient admissions, inpatient admissions for mental health conditions, or medical transportation events. (Exhibit 7.4). Compared to similar PRAC residents, PRA residents were less likely to have a long-term inpatient stay (lasting 28 days or longer) in a hospital, nursing facility, or other institutional setting, after they became a PRA resident. There were 3.8 percent fewer PRA residents admitted for a long-term stay, they had 0.02 fewer such admissions, and they spent about 1.2 fewer days per quarter. PRA residents visited the emergency department more often than PRAC residents, particularly when the visit did not lead to an inpatient admission (0.19 more visits per quarter). On the other hand, PRA residents had fewer 30-day readmissions to an inpatient hospital (0.03 fewer readmissions per quarter), and while they spent fewer days than PRAC residents admitted to an inpatient hospital (0.81 versus 1.29 days per quarter), the impact was not statistically significant.

The proportion of PRA residents who used PCA services was 5 percent higher than among PRAC residents (21.4 percent versus 16.5 percent), but similar proportions of the two groups used case management services (24.1 percent for PRA versus 20.5 percent for PRAC). Therefore, PRA residents may have somewhat higher rates of use of HCBS than similar PRAC residents, if we assume PCA is a proxy for a wider array of community-based supports.

Exhibit 7.4: Average Rates of Healthcare Utilization of PRA Residents Relative to PRAC Residents, 2016




Notes: ***After we adjusted for multiple comparisons, none of the estimated differences were statistically significant.*** PRA residents moved in during 2016 (or first two quarters of 2017 for Minnesota & Washington); PRAC residents were first assisted 2013 through 2016 (or first two quarters of 2017 for Minnesota & Washington). We could not identify PCA services using Maryland Medicaid fee-for-service claims or encounter data, thus Maryland was dropped from comparisons of PCA use.

Sources: Abt Associates analysis of TRACS and PIC household data from the quarter ending on March 31, 2018; and Medicaid claims and encounter data for 2015.

## PRA and NED Comparison

Unlike PRA, NED voucher holders do not need to be eligible for or necessarily have access to HCBS to receive housing assistance. On average, PRA residents tended to use somewhat less acute care and had fewer inpatient stays longer than 28 days than did similar NED voucher recipients. There were few statistically significant differences in healthcare utilization rates, and none of the differences were statistically significant after adjusting for multiple comparisons.

PRA residents visited the emergency department less often than the NED group (0.82 versus 1.14 visits per quarter), particularly for visits that did not result in an inpatient hospital stay (0.70 versus 1.04 visits per quarter) (Exhibit 7.5). PRA residents and the NED group were as likely to have a long-term inpatient stay but, on average, PRA residents had slightly shorter stays after they moved into their unit (0.22 versus 0.51 days per quarter). PRA residents also spent fewer days admitted to an inpatient hospital (0.81 versus 1.11 days per quarter) despite similar

rates of inpatient hospital admissions. PRA residents also used medical transportation less often than the NED group (1.65 versus 2.39 events per quarter).

The proportion of PRA residents who used PCA services was 10 percent higher than in the NED group (21.4 percent versus 11.6 percent), but similar proportions of the two groups used case management services (24.1 percent for PRA versus 27.3 percent for NED). Therefore, PRA residents may have somewhat higher rates of use of HCBS than NED voucher recipients.

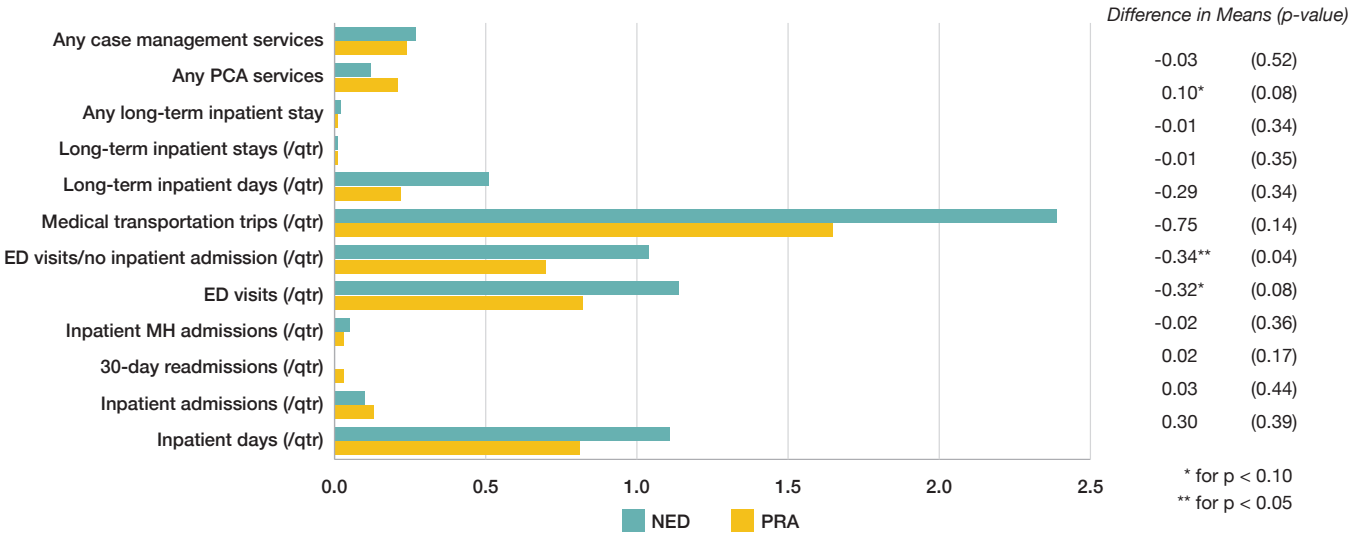
### PRA and Other HUD Comparison

Like the NED group, members of the other HUD group are not necessarily eligible for Medicaid HCBS, or other types of services. Compared to the other HUD group, PRA residents used healthcare services at somewhat higher rates. Few of the differences estimated were statistically significant, however, and none were statistically significant after adjusting for multiple comparisons.

PRA residents and the other HUD group had similar rates of admission to an inpatient hospital or admission for long-term inpatient care (Exhibit 7.6). On average, though, PRA residents spent more days admitted to an inpatient hospital (0.81 versus 0.60 days per quarter) and spent more days in a long-term inpatient stay (0.22 versus 0.07 days per quarter). While PRA residents visited an emergency room more often than the other HUD group (0.82 versus 0.68 visits per quarter), they used medical transportation less often than the other HUD group (1.65 versus 2.52 events per quarter).

About 5 percent more PRA residents used PCA services (21.4 percent versus 16.8 percent), and about 6 percent more PRA residents used case management services (24.1 percent versus 18.1 percent) than individuals in the other HUD group, suggesting there may have been somewhat higher rates of post-occupancy HCBS use among PRA residents.

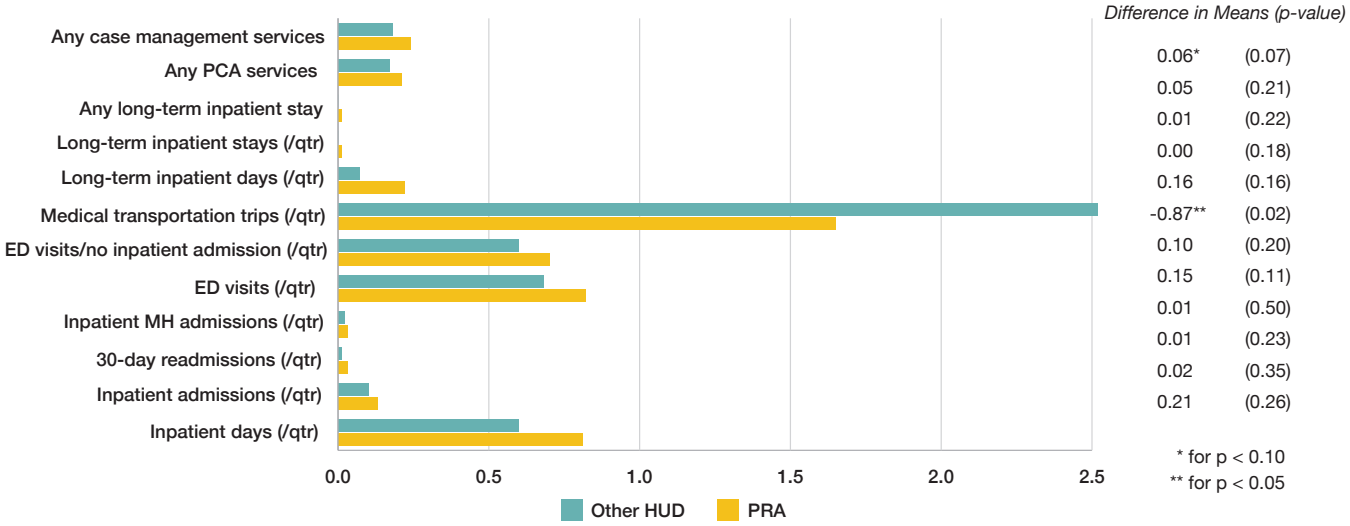
Exhibit 7.5: Average Rates of Healthcare Utilization by PRA Residents Relative to NED Voucher Holders, 2016




Notes: ***After we adjusted for multiple comparisons, none of the estimated differences were statistically significant.*** PRA residents moved in during 2016 (or first two quarters of 2017 for Minnesota & Washington); PRAC residents were first assisted 2013 through 2016 (or first two quarters of 2017 for Minnesota & Washington). We could not identify PCA services using Maryland Medicaid fee-for-service claims or encounter data, thus Maryland was dropped from comparisons of PCA use.

Sources: Abt Associates analysis of TRACS and PIC household data from the quarter ending on March 31, 2018; and Medicaid claims and encounter data for 2015.

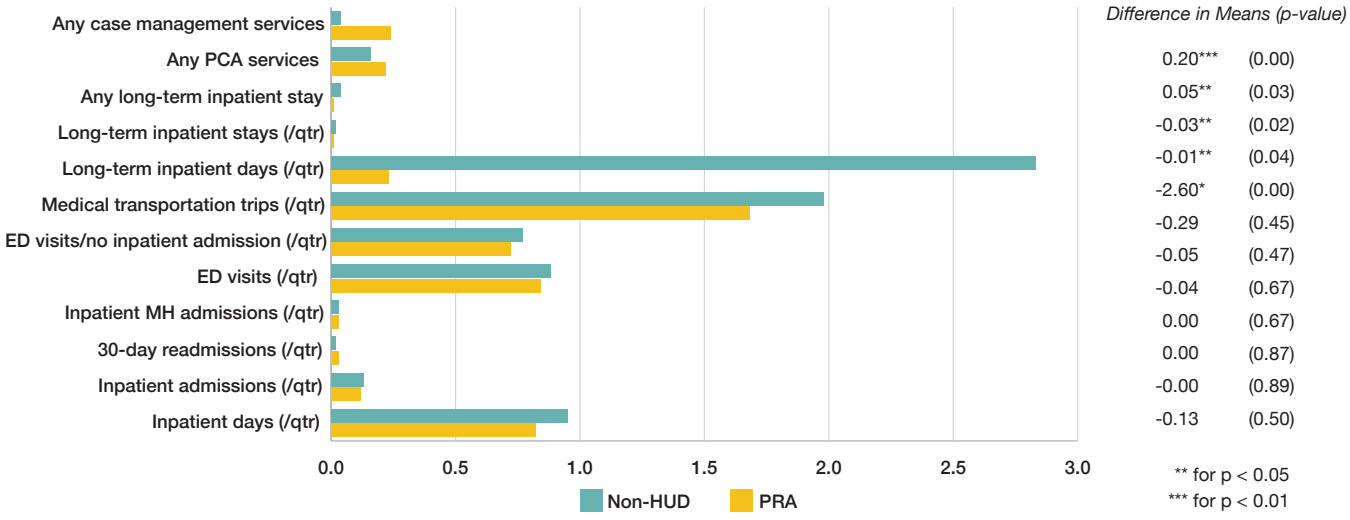
## Exhibit 7.6: Average Rates of Healthcare Utilization by PRA Residents Relative to Recipients of Other HUD Assistance, 2016




Notes: ***After we adjusted for multiple comparisons, none of the estimated differences were statistically significant.*** PRA residents moved in during 2016 (or first two quarters of 2017 for Minnesota & Washington); PRAC residents were first assisted 2013 through 2016 (or first two quarters of 2017 for Minnesota & Washington). We could not identify PCA services using Maryland Medicaid fee-for-service claims or encounter data, thus Maryland was dropped from comparisons of PCA use.

Sources: Abt Associates analysis of TRACS and PIC household data from the quarter ending on March 31, 2018; and Medicaid claims and encounter data for 2015.

## Exhibit 7.7: Average Rates of Healthcare Utilization for PRA Residents Relative to Medicaid Enrollees Not Receiving HUD Assistance, 2016




Notes: ***After we adjusted for multiple comparisons, none of the estimated differences were statistically significant.*** PRA residents moved in during 2016 (or first two quarters of 2017 for Minnesota & Washington); PRAC residents were first assisted 2013 through 2016 (or first two quarters of 2017 for Minnesota & Washington). We could not identify PCA services using Maryland Medicaid fee-for-service claims or encounter data, thus Maryland was dropped from comparisons of PCA use.

Sources: Abt Associates analysis of TRACS and PIC household data from the quarter ending on March 31, 2018; and Medicaid claims and encounter data for 2015.

### PRA and Non-HUD Comparison

The non-HUD comparison group includes people who were enrolled in Medicaid in 2015 and 2016 but were not simultaneously receiving any form of HUD assistance. PRA residents used long-term inpatient care services less often than the non-HUD group. There were 2.8 percent fewer PRA residents ever admitted for a long-term inpatient stay, they had 0.01 fewer admissions for such stays per quarter, and they spent about 2.6 fewer days per quarter (Exhibit 7.7).

PRA residents had 0.29 fewer medical transportation events per quarter and about 0.05 fewer emergency department visits per quarter, but there were no substantive differences between PRA residents and the non-HUD group with respect to the number of inpatient hospital admissions, 30-day readmission, or inpatient admissions for mental healthcare.

Compared to the non-HUD group, a greater proportion of PRA residents used PCA services (21.6 percent versus 16.3 percent) and case management services (24.3 percent versus 4.4 percent). Only the estimated differences in long-term inpatient days and the proportion of residents using case management services remained statistically significant at the 5-percent level.

### Summary

Comparisons of the prevalence of chronic and disabling conditions showed that the PRA program serves a potentially higher-need population than PRAC, NED, and other HUD programs, with higher rates of healthcare utilization before being assisted by PRA. There were few statistically significant differences when we compared PRA residents' rates of healthcare utilization during PRA tenancy to a matched comparison group of residents of other HUD-assisted housing and to a group who were enrolled in Medicaid but not receiving any rental assistance through HUD programs. These findings suggest that PRA residents did not have substantially different patterns of healthcare utilization after entering the PRA program than they would have had in a different living situation.

The only statistically significant differences in healthcare utilization were between PRA and the group without HUD assistance: lower use of long-term inpatient care services and higher use of case management services by PRA residents. This could mean that whether a household receives HUD housing assistance may have a positive effect on health outcomes regardless of the type of HUD assistance the household receives. This inference should be viewed with caution, however. Because of data limitations, we could only follow PRA residents' use of healthcare services for a relatively small sample in six states and for less than 1 year after entering the program, and we cannot draw any conclusions about how the PRA program would impact the use of healthcare services over a longer time period.

We did find that PRA residents were more likely to use personal care attendants or case management services than similar individuals in other housing settings, and this pattern could be associated with greater use of a wide array of community-based supports. However, the only differences that are statistically significant after accounting for multiple comparisons are those comparing PRA residents to otherwise similar Medicaid enrollees not receiving HUD assistance. While we cannot determine whether the PRA program is superior to other housing programs serving low-income individuals with disabilities, we can conclude that those receiving HUD assistance exhibit a different pattern of medical care (higher case management and lower rates of long-term inpatient stays) than otherwise similar individuals not receiving HUD assistance. We also might anticipate a longer-term impact of the PRA program on healthcare utilization to emerge once PRA residents have been in the program for longer periods and more households are assisted through the program nationally. This study only analyzed post-occupancy healthcare utilization for PRA residents on average less than a year after initial occupancy and only for a small percentage of households the PRA program will eventually assist.

# Economic Study of the PRA Program

The Section 811 PRA program is intended to be cost-effective in providing supportive affordable housing to people with disabilities and includes requirements related to cost-effectiveness. The program leverages units in high-quality affordable housing developments built with other capital funding sources and program funds are allocated through a grant competition that encourages states to subsidize more units by negotiating rents that are below the local area FMR.[47] At the same time, state housing agency grantees will want to select properties that they expect will meet the needs of their target populations. As a result, the costs of the PRA program can vary, depending on how the grantees and their partners implement the program in their states.

To determine whether the PRA program is meeting its cost-effectiveness goals, the team conducted an economic study to describe how the PRA program requirements drive costs and to discuss differences in costs between PRA and the PRAC, NED, and other HUD housing assistance programs in the six study states. The economic study consists of an analysis of what PRA and other housing subsidy programs cost and a discussion of differences across the programs in how costs are allocated between HUD, other federal funding sources, and state and local agencies. This chapter concludes with a discussion of the cost-effectiveness of the PRA program.

To summarize the findings of the economic study:

- Average PRA rental subsidies were $586 per unit, per month, which is $69 per month higher than the average PRAC rental subsidy and lower than monthly subsidies in NED and other HUD housing assistance programs.
- The LIHTC program funds, on average, 72 percent of development costs for properties in which PRA program units are located. This represents a distinct shift in the source of housing subsidy relative to the PRAC program, for which HUD capital grants fund approximately 84 percent of development costs.
- Total rental plus capital subsidies average $11,810 annually for each PRA unit. This is similar to the $12,052 total annual average per-unit rental plus capital subsidy provided by the PRAC program.[48]
- Early evidence suggests that healthcare costs for PRA residents, as compared to PRAC residents, may shift away from inpatient hospitalization and long-term inpatient care towards greater HCBS costs.
- PRA grantee and state agency partner average total per-unit annual administrative costs were approximately $5,380 in 2017 and consist primarily of staffing costs. Averaging across the six study states, grantees costs represent just less than half (46 percent) of the administrative costs. These costs substantially exceed the amount of administrative funds drawn down, and several states report that staffing needs have been higher than anticipated.
- Taking the cost and impact findings around housing together, we conclude that the PRA program provides housing at a comparable or slightly lower cost than the PRAC program, which produces housing quality and experience that is comparable to or slightly less desirable than the PRAC program. For healthcare and supportive services, we conclude that, if short-term patterns persist, the PRA program has positive impacts that are approximately cost neutral. This comparable cost-effectiveness of the PRA program currently appears to come at a higher administrative cost. However, given key differences between the PRA and comparison programs, further research is needed to assess the cost-effectiveness of the administrative costs.

## 8.1 Analyzing Costs and Cost-Effectiveness of PRA and Comparison Programs

In this chapter, we report costs associated with assistance provided to PRA residents in our six study states. We developed per-individual, annual cost estimates in four areas: housing rental subsidies, housing capital subsidies, healthcare and supportive services, and program administration. Where data allow, the study compares PRA costs in these four areas to the same costs for individuals in the PRAC, NED, and other HUD comparison groups. The study also compares the source(s) of funds or resources for each type of estimated cost and describes total estimated costs for the four areas combined.

A detailed summary of our approach to the economic study, including an overview of methods and data sources, is in Appendix B.

[47] The cost-effective use of PRA funds is a topic in the PRA Notices of Funding Availability: https://www.hudexchange.info/resources/documents/Section-811-PRA-Demo-FY2012-NOFA.pdf.

[48] This study did not gather capital subsidy data for properties housing residents in NED or other HUD programs.

## Approach to Cost and Cost Allocation Analyses of PRA and Comparison Programs

The costs of the PRA and comparison group programs depend on the design of each program, as well as how programs are implemented. Thus, the role of different categories of costs differs from program to program.

***Housing rental subsidies*** are the primary cost of the PRA program and the primary or a key cost of each of our comparison programs. The rental subsidies are paid monthly to property owners in the PRA program and in each of the programs serving our comparison groups. Because we use household-level administrative data from HUD, computing average per-individual rental subsidy costs is straightforward.[49] In order to relate the costs of different programs to serving comparable people, we compute the average per-unit, per-month subsidy amount using analysis weights derived using the same propensity-score matching approach as we used in the impact analyses in the seventh chapter, as detailed in Appendix B. We report sample sizes for the rental subsidy analysis in Exhibit 8.1. For the cost allocation analysis, we note that HUD bears the costs of all rental subsidies that we observe.

Average rental subsidies for similar people may differ across the programs because of differences in the housing itself—that is, the size, quality, or location of the units—or because of differences in how the unit is subsidized. The PRA and each of the comparison HUD programs all require households to contribute approximately 30 percent of their income to rent, and the programs subsidize the difference between what tenants pay and the unit's rent. The total rent that can be subsidized is subject to a variety of HUD limitations, depending on the program. Properties with larger up-front capital subsidies have lower rents and so require lower ongoing rental subsidies.

***Housing capital subsidies*** play an indirect but important role in the costs of the PRA program, and are a direct expenditure in the PRAC program. PRA grantees use program rental subsidies in affordable multifamily housing developed with other federal, state, or private sources. A single development often receives subsidies from multiple programs at the federal and state and local levels. Because this leveraging is explicit in the PRA program design, we consider the cost of these subsidies in the cost of the PRA program.

The PRAC program includes a direct, development-level capital subsidy from HUD to the nonprofit sponsor. PRAC properties also received additional capital subsidies from other programs, but to a much lesser extent than PRA properties.[50] For both programs, we convert the cost of the capital subsidies incurred as a lump sum when the property was developed to a per-unit, annualized cost in 2018 using a number of necessary and standard assumptions for allocating costs across units and amortizing the value of grants and low-interest loans across time.[51] We report the share of capital subsidies provided by HUD programs, the LIHTC, state and local programs, and other sources.

***Healthcare and disability-related supportive services costs*** are not directly subsidized by PRA or any of our comparison programs. Housing quality and location can affect both health and healthcare and supportive services utilization patterns. Because of the resulting possibility for cost-shifting across the housing and health domains, we also estimate and compare healthcare and supportive services costs for residents in PRA and the comparison programs. Our primary approach for analysis builds directly on our analysis of healthcare utilization outcomes, by incorporating state-specific average cost estimates into the utilization analysis. We analyze Medicaid payments on fee-for-service Medicaid claims associated with a key set of measures used in the analyses of healthcare utilization: inpatient days, emergency department visits, medical transportation, days of facility-based long-term care, and case management services as a proxy for HCBS services. The estimates of healthcare costs are supplemented by information learned from interviews with state Medicaid agencies and service providers who work with PRA applicants and residents. The staff provided information about sources of funding for healthcare and supportive services utilization that may not be captured by state Medicaid data.

***Program administrative costs*** are the final cost area of our analysis. We estimate per-individual average annual costs of program administration for the PRA program and

[49] Rental subsidy amounts for the PRA and PRAC programs are included in the Tenant Rental Assistance Certification System (TRACS) data, while amounts for NED and other HUD programs are elements of the PIH Information Center (PIC) data. The study reports average subsidy amounts for all households receiving assistance as of March 2018. In both PRA and PRAC, in some circumstances, property owners are eligible for payments when units contracted into the programs go vacant. We also discuss these potential payments in our analysis of rental subsidy costs.

[50] Throughout this chapter we refer to "PRA properties" and "PRAC properties" as shorthand for properties that include units receiving subsidies through the respective Section 811 programs.

[51] Complete details of our methodology are included in Appendix B. We apportion the initial subsidy among units that vary in size and amortize over the period for which the property provides low-income rental assistance, using a 3.5 percent discount rate (for example, 30 years for LIHTC funding and 40 years for PRAC grants). We value the entire amount of grants and forgivable loans as a subsidy and estimate the value of assistance provided as low-interest, but repayable, loans as the implied lifetime savings relative to a market-rate loan provided by the lower rate.

draw comparisons to estimates for PRAC, NED, and other HUD programs. Our estimates of administrative costs include both grantee costs and costs to HUD. To calculate these estimates, we use data collected from PRA program grantees and partners through a cost and effort survey and from consultation with HUD staff. Costs estimates for the PRAC program are based on consultation with HUD staff, and we additionally reviewed PRAC grantee annual financial report data and publicly available information for a limited number of sponsoring organizations' websites. Our estimates for NED and other HUD administrative costs are based on prior research on administrative costs for the PHAs that administer these programs and consultation with experts that conducted this prior research (Turnham et al., 2015). We also examine the extent to which HUD funds cover program administrative costs.

### Limitations of the Economic Study

The economic study has limitations related to data availability and to the relative newness of the PRA program compared to PRAC, NED, and other HUD programs.

- Our analysis requires primary data collection for capital subsidy data, which we conducted before the last extract of administrative data on rental subsidies. Also, the study only had access to capital subsidy data for a limited sample of PRAC properties. To make the most of the available information on both rental and capital subsidies, we used multiple analysis samples in our housing cost analyses. In each case, we use the largest sample size for which the relevant data is available:
  - ***Rental Subsidy Analysis:*** HUD administrative data provides information on rental subsidies, which we used to analyze data for all individuals in our analysis groups as of March 2018.
  - ***Capital Subsidy Analysis:*** No central database documents capital subsidies for low-income housing. For PRA properties, the study team collected detail on capital subsidies from LIHTC cost certification and applications for each of the 41 properties that had any occupied PRA unit as of the summer of 2017. Details on the PRAC capital grant are available in HUD administrative data for all PRAC properties, so we analyzed total PRAC program subsidies for this sample of 440 properties. Some PRAC properties also received additional capital subsidies from other sources. The study team reviewed a number of PRAC applications provided by HUD and found capital subsidy information for 29 PRAC properties. We were able to review and extract information from grant applications for only a fraction of PRAC properties. Because this review provides the only available additional detail on the prevalence of capital subsidy beyond the PRAC grant itself, we also include an analysis of housing subsidies in this sample.[52]
  - ***Combined Capital and Rent Subsidies Analysis:*** To assess the cost of the total combined capital and rent subsidy, we are limited to the capital subsidy analysis samples for which we have information about both housing subsidy types.
- Our analysis of ***healthcare and disability-related supportive services costs*** is subject to the same data limitations as the analysis of tenancy, healthcare utilization, and neighborhood outcomes. We analyze a subset of healthcare and supportive services utilization selected in part based on information that is consistently coded in state-level Medicaid data across our study states. In addition to these limitations, our cost analyses require additional assumptions and estimates to estimate state-specific costs for our utilization measures. These assumptions, detailed in Appendix B, add some uncertainty to our findings.
- To estimate ***administrative costs*** of the PRA program we rely on primary data collected from grantees to directly estimate staffing and other costs. The study does not have primary data for PRAC or our other comparison programs for administrative staffing at the grantee level. Rather, we rely on information from HUD on costs associated with applying for and administering grant funds, and published estimates of administrative costs associated with other HUD programs.

## 8.2 Costs of Rental Subsidies

The PRA program is primarily a rental subsidy program, in that program funding is devoted solely to rental subsidies and program administration. In this section, we report the average cost of the ongoing rental subsidies that are paid monthly to property owners in the PRA program and each of the programs serving our comparison groups. To make the averages for PRA residents and those in the other programs comparable, we compute the averages using analysis weights derived using the same propensity-score matching approach that we used in the impact analyses in the fourth through seventh chapters.

[52] We targeted PRAC properties for capital subsidy data research that had a high incidence of residents that our propensity score matching model indicate were similar to PRA residents. The 29 properties for which we recovered data may not be representative of the larger PRAC analysis sample.

## Average Monthly Per-Unit Rental Subsidies in the PRA Program

**Average PRA rental subsidies were $586 per month for the 540 PRA residents in HUD administrative data as of March 2018, but subsidies vary among states (Exhibit 8.1).** Monthly rental subsidies ranged from a low of about $100 to a high of about $1,300, with a 25th percentile of $443, a median of $548, and a 75th percentile of $695. At $936 a month, Maryland has a substantially higher average monthly rental subsidy than any of the other study states. Maryland's PRA program focused on the Washington and Baltimore metropolitan areas, which have relatively high rents among the areas served by our sites.

Exhibit 8.1: Monthly Rental Subsidy and Contract Rent for Units in PRA Program

| State | N | Average Rental Subsidy | Average Contract Rent | Estimated Average Subsidy (FY12) | Average FMR | Average SAFMR |
|---|---|---|---|---|---|---|
| California | 83 | $538 | $798 | $705 | $1,157 | $928 |
| Delaware | 52 | $587 | $766 | $502 | $971 | $870 |
| Louisiana | 158 | $538 | $720 | $597 | $757 | $649 |
| Maryland | 48 | $936 | $1,187 | $1,055 | $1,436 | $1,755 |
| Minnesota | 115 | $596 | $761 | $503 | $793 | $817 |
| Washington | 84 | $506 | $725 | $354 | $749 | $729 |
| **Total** | **540** | **$586** | **$787** | | **$889** | **$901** |

**Sources: TRACS Household Data (rent statistics) as of March 2018; Section 811 PRA Cooperative Agreements for grantee projected average rental subsidy as of March 2018; published FMR and SAFMRs for 2017.**

The PRA program includes a provision to allow vacancy payments—compensation to owners when a unit contracted into the program goes unfilled for a prolonged period. Grantees can provide vacancy payments to owners in the form of rental assistance payments for up to 80 percent of the unit's rent for a maximum of 60 days. Each state can determine whether or not to offer vacancy payments, and owners must certify that they could not place anyone else in the unit for the vacancy period. Owners can request vacancy payments for units held open while grantees or partners are locating a program participant that is eligible for a newly available unit or after a PRA resident moves out.

Vacancy payments can result in additional costs to the rental subsidies we report in Exhibit 8.1. In the six study states, only two states (Delaware and Washington) adopted policies to allow owners to request the maximum vacancy payments allowed. In Maryland and Louisiana, owners cannot request vacancy payments until after a unit has been vacant for at least 60 days, and owners in Minnesota can only receive up to 60 percent of the unit's rent for up to 60 days. The California state housing agency does not provide for vacancy payments at all. Our interviews with state agency staff indicate that only Delaware had made substantial vacancy payments at the time of the interviews.[53]

## Comparison of Actual and Estimated Average Rental Subsidies

**Average PRA rental subsidies are close to or below grantee expectations.** HUD established incentives in the FY12 and FY13 NOFAs to encourage applicants to propose lower per-unit subsidy costs than would be required if the PRA rents were based on FMR, the maximum rent allowed in the program. Several grantees proposed maximum PRA rents below FMR. Given these incentives, grantees estimated the expected average rental subsidies in their Cooperative Agreements with HUD.

Comparing actual averages to these expectations is one way of assessing the program goal of lowest feasible

[53] In Delaware, we estimate that these payments added between $25 to $50 per month to the average monthly per-unit subsidy cost. The share of available units that were vacant in Delaware was high in the first year of the PRA program, but has fallen to below 10 percent in the most recent quarterly reports, suggesting that these payments may be unique to the start-up phase of the program in Delaware. Louisiana, Minnesota, and Washington reported only a few vacancy payments and have a small share (typically less than 5 percent) of available units reported as vacant in quarterly report data snapshots. California and Maryland reported they had not made any vacancy payments (and quarterly report data snapshots indicate few, if any, vacant units in these states at any given point in time).

costs.[54] We caution that this comparison may also reflect whether grantees that serve multiple rental markets have been more successful in contracting and leasing up units in higher-rent markets or lower-rent markets. Exhibit 8.1 reports grantee's expectations for average rental subsidies. California's subsidy costs are well below their estimate, while all other states' actual average costs are reasonably close (within a standard deviation) to their estimated costs.

### Comparison of PRA Contract Rent to Fair Market Rent

The study also compared average monthly rental subsidies plus total tenant payments to Fair Market Rents and Small Area Fair Market Rents. Comparing the gross rent (rental subsidy plus the tenant rent portion) to FMR and SAFMR provides an indication of how the rent for the units compares to prevailing rents in the metro area (FMR) and neighborhood (SAFMR). FMRs or SAFMRs are used to determine the rents that are affordable to people assisted by NED and the Housing Choice Voucher program. HUD calculates and publishes FMRs as estimates of the 40th percentile of rent of recent movers in each metropolitan area. SAFMRs adjust FMRs to account for more and less expensive ZIP Codes.

Average gross rents for PRA units are, for the most part, well below the FMR and SAFMR. Exceptions are in Louisiana, where gross rents are actually above SAFMRs, indicating that rents may be slightly above usual rent levels for assisted units in the neighborhoods in which the properties are located. Washington also has a gross rent that is close to both FMR and SAFMR. That average PRA rents are lower than average FMRs is expected given that PRA units are required to be in properties with capital subsidies that come with affordability restrictions and below-market rents.

### Comparison of PRA, PRAC, NED, and Other HUD Monthly Per-Unit Rental Subsidies

In most states, average monthly rental subsidies are similar to those supporting similar people (based on multivariate propensity score modeling) in PRAC, NED, and other HUD programs.[55] Exhibit 8.2 reports average subsidies for each of the comparison programs. Key findings shown in the exhibit are that:

- The average PRA monthly per-unit rental subsidy is $69 higher than the propensity-score weighted average for our PRAC comparison sample, but the difference varies across states.
- The average monthly per-unit rental subsidy for NED is $70 higher than for PRA across the full sample, with the difference driven largely by California and Maryland.
- Average monthly subsidies for the other HUD comparison group are higher than or similar to for PRA across all of the states.

Exhibit 8.2: Monthly Rental Subsidy for PRAC, NED, and Other HUD

| | PRAC | | | NED | | | Other HIUD | | |
|---|---|---|---|---|---|---|---|---|---|
| State | N | Mean | St. Dev. | N | Mean | St. Dev. | N | Mean | St. Dev. |
| California | 827 | $596*** | (260) | 873 | $809*** | (506) | 27,074 | $771*** | (471) |
| Delaware | 163 | $458 | (281) | <10[a] | [a] | [a] | 312 | $666*** | (183) |
| Louisiana | 577 | $405*** | (140) | 263 | $517*** | (114) | 6,189 | $494 | (149) |
| Maryland | 963 | $557*** | (305) | 320 | $934*** | (302) | 4,512 | $837*** | (398) |
| Minnesota | 305 | $438*** | (216) | <10[a] | [a] | [a] | 4,701 | $472*** | (161) |
| Washington | 356 | $550 | (240) | 946 | $546 | (237) | 6,085 | $523*** | (192) |
| **Total** | **3,191** | **$517*** ** | **(255)** | **2,523** | **$656** | **(329)** | **48,873** | **$636** | **(345)** |

[a] Values not reported due to small sample reporting restrictions.

*** Different from the same (overall or state) PRA average with p-value<0.001.

Note: Values are calculated using propensity-score weights based on demographic and health history characteristics.

Source: TRACs and PIC Household Data (rent statistics) as of March 2018.

[54] All actual averages are statistically significantly different from the grantee estimates. This is not surprising because we would not expect grantee forecasts to be precise forecasts of subsequent rents.

[55] The PRAC program also has provisions for vacancy payments should a unit go unfilled for a prolonged period of time. Further research focused on the PRAC program would be needed to determine whether such payments meaningfully affect program costs.

## 8.3 Capital Subsidy Costs

Unlike the PRAC program, the PRA program does not fund capital subsidies. Rather, units that are contracted into the program are in multifamily developments in which other capital funding sources subsidize the development costs. These sources include LIHTC, HOME funds, the Community Development Block Grant (CDBG) program, and other federal, state, or private sources. Subsidies take the form of direct funds (grants or proceeds from tax credit sales), repayable loans with below-market interest rates, and forgivable loans with low or no interest rates. Funds can also be an unsubsidized private investment for which debt investors receive mortgage payments and equity investors receive future rental income or maintain an ownership interest in the property. The construction or substantial rehabilitation of PRA properties are almost always funded from a variety of sources. Properties financed with subsidized capital subsidies have rent limits and affordability restrictions for some specified period.

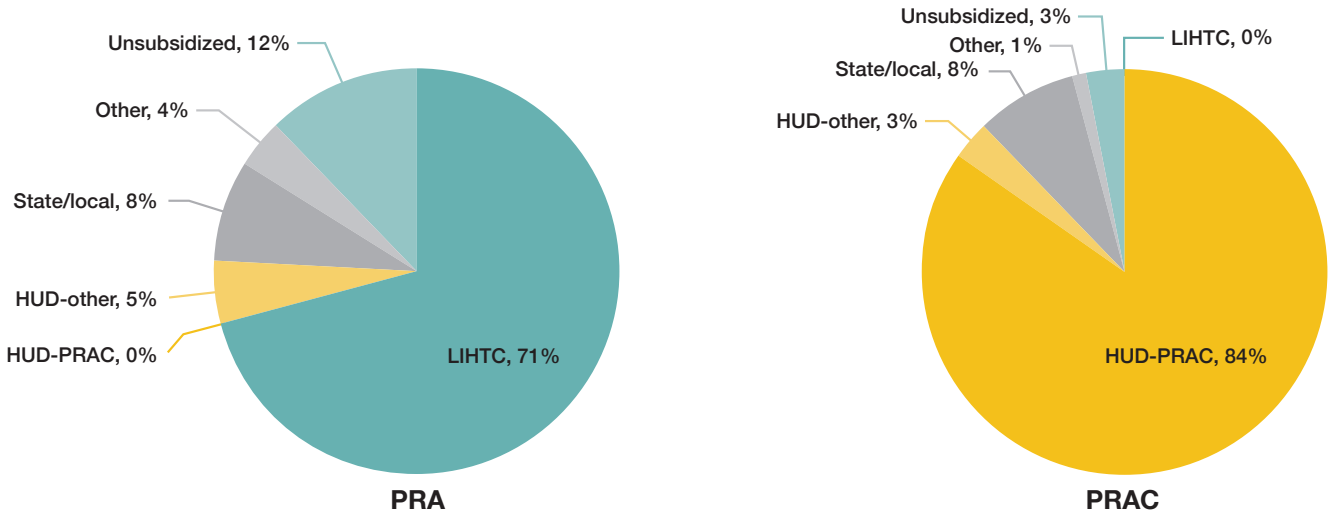
In contrast, the PRAC program included both rental and capital subsidies. PRAC capital subsidies were expected to cover all or nearly all capital costs, although the program did not prohibit owners from accessing other subsidies, grants, or private investment. Rental assistance provided through NED and other HUD programs may also be used in properties that receive LIHTC, HOME, CDBG, Project-based Section 8, Public Housing, or a variety of other capital subsidies. In this evaluation, we do not research and analyze capital funding prevalence in these other programs. For NED and the Housing Choice Voucher program, a property need not have received a capital subsidy in order for the rental subsidy to be used.

### Sources of Capital Financing for PRA and PRAC Properties

**The primary source of capital financing for properties with PRA units under contract in the study states is the LIHTC program, which provides, on average, 71 percent of development costs (Exhibit 8.3).** State and local low-income housing programs (housing trust funds, bonds, and grants) fund an average of 8 percent of development costs. HUD programs (HOME and CDBG) make up 5 percent, and other federal agencies and private grants make up 4 percent of costs. The remaining 12 percent of capital financing for PRA properties represents a combination of private investor funds and some unsubsidized loans.[56]

About 60 percent of PRA units are in properties that received some capital funding from state or local low-income housing programs, although these other sources provide a smaller share of financing. Approximately 57 percent of PRA units are in a development that had more than a trivial amount of unsubsidized capital investment. More than 40 percent of units are in developments that used loans or grants from other HUD programs, and 37 percent had some other form of grant or subsidized loan.

Exhibit 8.3: Sources of Capital Subsidy Costs for PRA and PRAC Properties




Note: Percentages may not add to 100 percent due to rounding.

Source: Capital cost data collected for the cost analysis from LIHTC cost certifications and applications and PRAC grant applications in six study states.

[56] The LIHTC program can include private investment that has an interest in rental revenue both during the period of affordability restrictions and beyond.

**PRAC capital grants provide, on average, 84 percent of development capital for PRAC developments where our comparison sample lives.** State and local grants or subsidized loan programs account for the next largest share, at 8 percent, while other HUD programs provide 3 percent of PRAC development capital funding. Other sources (for example, other federal agency or private grants) provided 1 percent of capital funding. We identified only one PRAC property that also had LIHTC funding, and the LIHTC share of the capital funding for this property was a modest 13 percent. The remaining 3 percent of capital development funding represents some combination of owner investment or unsubsidized loans, and only 24 percent of our PRAC comparison sample lives in units that have more than a trivial amount of unsubsidized capital investment.

**The per-unit value of development capital subsidies for units in the PRA program is, on average, approximately $5,000 annually (Exhibit 8.4).** The annualized value of PRAC program capital subsidies is $7,662 per unit for the sample for which we have full information on capital funding sources. Since this represents a fraction of PRAC properties (due to issues with availability of data), we also report the annualized, per-unit average PRAC capital grant from HUD for all PRAC properties in our analysis. On average, the PRAC grant provides nearly $6,000 per unit in annualized capital subsidy.

Exhibit 8.4: Annualized Per-Unit Capital Subsidy for PRA and PRAC

| | PRA | | | PRAC—Complete Capital Subsidy | | | PRAC Grant Only (full sample) | | |
|---|---|---|---|---|---|---|---|---|---|
| | Mean | St. Dev. | Properties | Mean | St. Dev. | Properties | Mean | St. Dev. | Properties |
| Total annual per-unit capital subsidies | $4,969 | (3,379) | 41 | $7,662*** | (2,187) | 29 | $5,851*** | (2,151) | 440 |
| **By Category** | | | | | | | | | |
| HUD (not PRAC) | $255 | (457) | 19 | $373 | (698) | 17 | | | |
| HUD PRAC | -- | -- | -- | $6,346 | (1,471) | 29 | $5,851*** | (2,151) | 440 |
| LIHTC | $4,016 | (2,957) | 41 | $27*** | (177) | 1 | | | |
| State/Local | $614 | (897) | 32 | $776 | (976) | 19 | | | |
| Other | $83 | (177) | 19 | $139 | (537) | 7 | | | |

*** Different from the average with p-value <0.001.

Note: Values are calculated using propensity-score weights based on demographic and health history characteristics.

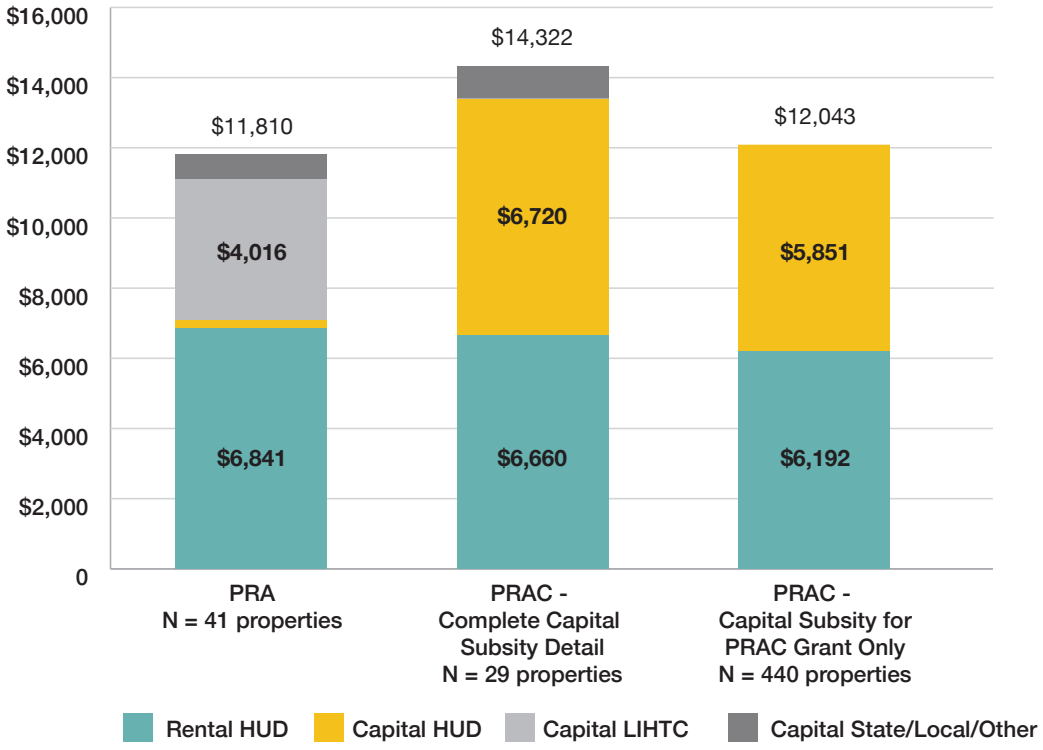
Source: Capital cost data collected for the cost analysis from LIHTC and PRAC grant applications in six study states.

## Comparison of Combined Capital and Rent Subsidies in the PRA and PRAC Programs

**PRA units receive, on average, $11,810 in total housing subsidies annually. PRAC units for which we have complete capital subsidy detail receive, on average, $14,322 in total housing subsidies annually.** The difference is the result mainly of the $2,693 larger average annual per-unit capital subsidies in the PRAC program. For this sample, annual rental assistance differs by only $181, and the difference is not statistically significant.

**For the complete sample of PRAC properties, the annualized value of the PRAC capital grant plus ongoing rental subsidies totals $12,043 (Exhibit 8.5).** This combined sum is not statistically significantly different than the total annual housing subsidy for PRA units. The higher annualized capital subsidy provided by the PRAC grant is offset substantially by lower ongoing rental assistance. Because details on possible additional capital subsidies are not available for a larger number of properties, it is difficult to draw a conclusion about what is driving differences in rental subsidies for the full PRAC sample and the smaller sample with greater capital subsidy detail. However, in both samples, the average annualized value of the PRAC grant plus PRAC rental subsidy is similar to the average annualized value of the total subsidy (PRA rental subsidy plus value of LIHTC and other capital subsidies) for PRA units.

Exhibit 8.5: Annualized Per-Unit Total Housing Subsidy for PRA and PRAC




Note: Values are calculated using propensity-score weights based on demographic and health history characteristics.

Sources: Capital cost data collected for the cost analysis, for example, from LIHTC and PRAC grant applications; TRACS and PIC Household Data (rent statistics) as of March 2018 in six study states.

The available data suggests that the PRA program provides slightly higher (about $600 annually) rental assistance than the PRAC program in properties that were built with lower annualized capital subsidies. **Housing subsidies in the PRA program rely on the LIHTC program for capital subsidies, with HUD funds providing, on average, almost 60 percent of the total annual housing subsidy. In contrast, HUD funds provide more than 90 percent of the housing subsidies in the PRAC program.**

## 8.4 Costs of Healthcare and Disability-related Services Utilization

Successful tenancy in the PRA program could require different levels and types of support than in our comparison programs. Housing quality and location may also affect both healthcare utilization and access to services. The seventh chapter reported findings on patterns of healthcare and disability services utilization observed in state Medicaid data. This section builds on that analysis using estimates of the average fee-for-service costs of this utilization to the state Medicaid programs. The PRA program does not directly support these costs. Rather, we include these costs in our analysis to acknowledge that linkages between housing, health, and healthcare utilization may result in costs shifting across the housing and health domains. This linkage is what motivates the partnerships with health and disability services agencies that are required of PRA grantees.

The study does not have access to complete documentation of healthcare and disability-related services utilization or costs. Due to data limitations, our analysis provides only a preliminary indication of how comprehensive costs for all healthcare and disability services utilization likely differ for individuals in the PRA and comparison programs. Before presenting the quantitative findings limited to state Medicaid data, we include qualitative findings on the provision of and use of disability-related services. These findings are drawn from study interviews, resident surveys, reviews of program documents, and other primary research. We discuss the sources of assistance for healthcare

and disability services for PRA program residents and comparison group members. We specifically highlight costs associated with tenancy-related supports, because they are most directly linked to successful use of the PRA program.

## Sources of Assistance for Healthcare and Disability Services for PRA Residents

Like all low-income adults with disabilities, PRA program residents receive healthcare that may be funded by a variety of payers, but is primarily funded by Medicare, Medicaid, or a combination of the two programs. Disability-related services, including some tenancy supports, are also primarily funded by Medicaid. However, PRA residents and the similar individuals in our comparison groups may receive services that are not funded by Medicare or Medicaid, for example, through other state and local programs or through private philanthropy.

### *Medicare*

Medicare is a federal health insurance program that insures seniors, as well as people younger than 65 with disabilities who are approved for Social Security Disability Insurance (SSDI). Medicare pays for inpatient and outpatient care, prescription drugs, and limited skilled nursing facility stays. Medicare also pays for home health services under certain limited conditions. Medicare requires patients to pay a share of their medical costs. In the case of low-income individuals who also qualify for Medicaid coverage, Medicaid will pay the patient's share.

### *Medicaid*

Medicaid is a health insurance program jointly run by states and the federal government that insures low-income individuals and families. Like Medicare, Medicaid pays for inpatient and outpatient care and prescription drugs. In addition, Medicaid pays for long-term skilled nursing facility stays, and home and community-based services. Within a set of federal parameters, each state determines the specific benefits available to Medicaid enrollees and the income limit for Medicaid eligibility. The PRA program requires applicants to be eligible for home and community-based services funded by Medicaid or state plan services, but not necessarily to receive these services.

Importantly for the PRA population, Medicaid covers HCBS, which include both health services and supportive services. Examples of supportive services that can be provided using Medicaid HCBS funds are personal care, transportation, assistance with meals and housekeeping, and home modifications.[57] PRA residents are eligible for specific Medicaid HCBS based on their particular disabilities and associated needs. We examine differences in costs associated with HCBS utilization between PRA residents and our comparison groups below. Additionally, Medicaid's MFP program pays for housing location and transition services for some Medicaid enrollees who move from an institution to a community setting.

### *Service Provider Resources*

Several of the service providers we spoke with indicated that their organizations, which rely on Medicaid reimbursements to cover their costs, were not sufficiently reimbursed for time spent working with PRA applicants or residents. As a result, some providers say their organizations lose money by taking on PRA residents as clients. These providers said their organizations had different reasons for accepting these losses and continuing to serve PRA residents. Reasons include having underestimated the actual time that case managers would need to spend with PRA residents and having related programs that also serve PRA-eligible residents and are adequately funded. If service intensity continues as the program matures, continuing to realize such losses without additional funding may represent a risk to the long-term sustainability of the PRA program.

### *Other Paid Sources of Assistance*

Although Medicaid is the main source of funding for ***tenancy supports*** provided to PRA residents and similar individuals in our comparison groups, Medicaid does not cover all tenancy supports. Other sources of funding for disability services provided to PRA residents are available, but limited. Federal Projects for Assistance in Transition from Homelessness (PATH) grants provide people with serious mental illness experiencing homelessness with housing locator services.[58] A variety of state and county social services agencies, as well as private philanthropic entities, assist those leaving institutions or homelessness with transitions to community-based living, by helping residents set up their new homes, establish utilities, and settle into their neighborhoods. PRA residents may receive tenancy supports not covered by Medicaid from state-funded programs, county governments, and nonprofit organizations. Finally, a few PRA properties employ a service coordinator who can help PRA and other residents gain access to community services.

[57] https://www.cms.gov/Outreach-and-Education/American-Indian-Alaska-Native/AIAN/LTSS-TA-Center/info/hcbs.html
[58] https://www.samhsa.gov/homelessness-programs-resources/grant-programs-services/path

*Informal Caregivers*

The survey of Section 811 residents ***found similar rates of PRA and PRAC survey respondents receiving regular help from family and friends***. Many PRA and PRAC residents have their own support networks—family or friends who may help with everyday activities or otherwise provide assistance. We note that this interaction is an important source of assistance and contributes to PRA and PRAC program resident well-being. We do not measure any difference between PRA and PRAC residents in these informal support networks, and this assistance does not represent a cost to the government. Therefore, we do not assess a monetary value to the assistance that informal caregivers provide for our economic analysis.

## Costs of Relevant Healthcare and Disability-Related Services Assistance through Medicaid

In this section, we provide evidence on the costs of healthcare and disability-related service utilization that we observe in state Medicaid data for individuals in the PRA program and individuals in our comparison groups. Before presenting costs, we repeat that, because of limitations in the availability of data on all utilization of healthcare and supportive services, this analysis includes only a subset of the utilization observed in state Medicaid data. We focus our analysis on a subset of utilization that is likely to be affected by housing location and quality or access to services—the outcomes that may differ for individuals assisted by PRA as opposed to PRAC or our other comparison groups—and for which we have consistently defined measures across state Medicaid data.

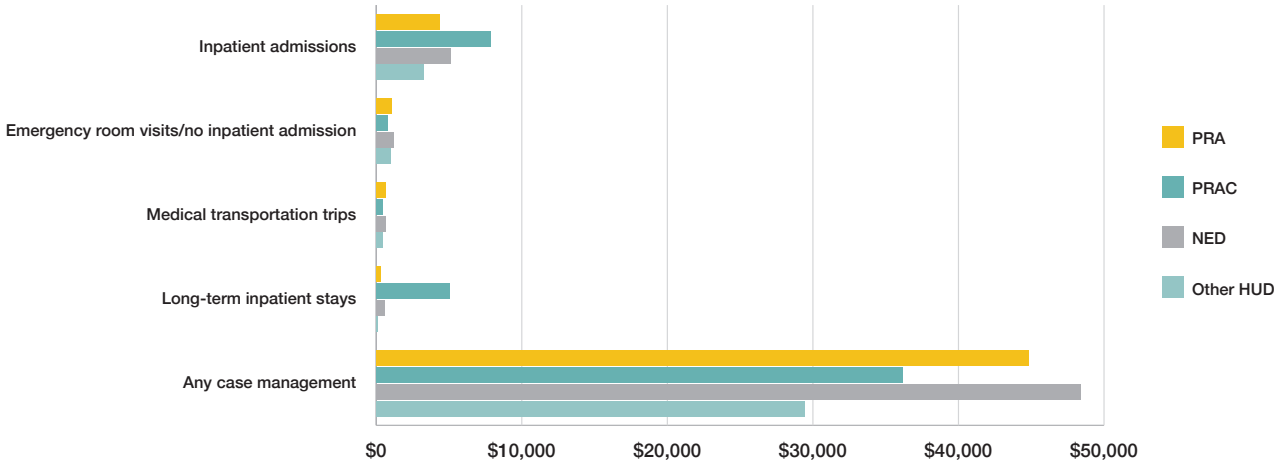
The interpretation of our findings depends on whether differences in PRA residents' healthcare utilization relative to that of the people in our comparison groups occur mainly in the measures of utilization and costs that we are able to examine. Similarly, the interpretation also depends on whether differences in case management utilization are a good proxy for differences in overall HCBS utilization. If these assumptions are reasonable, then our estimates capture differences in overall healthcare and services utilization costs for PRA and PRAC estimates. In reality, there may be differences in utilization that we do not observe as a result of limitations of the available data. Our findings more likely represent a limited view into differences in average healthcare and supportive services costs between PRA residents and individuals in our comparison groups. At a minimum, our approach and findings provide a framework for comparing healthcare costs for individuals in different assisted housing situations for future analyses with more comprehensive data.

In the first year of ***PRA assistance, PRA residents have different patterns of healthcare and services costs than similar individuals in our comparison groups***. Exhibit 8.6 reports our cost estimates for four healthcare utilization measures. Compared to PRAC residents, PRA residents have lower costs of inpatient hospital stays, and higher costs of medical transportation and HCBS use, although none of these differences are statistically significant.

***PRA residents have higher costs of emergency department visits—$1,094, compared to $756 for PRAC residents, a statistically significant difference. PRA residents have much lower costs related to long-term inpatient stays than PRAC residents—$299, compared to $5,059 for PRAC residents, a difference that is also statistically significant.*** The PRA and PRAC sums of the cost estimates for this subset of healthcare and supportive services are within $1,000 of each other. Although we do not draw definitive conclusions with regard to total healthcare utilization costs, this relatively small difference indicates that PRA is approximately cost-neutral to Medicaid relative to PRAC in terms of this selected subset of healthcare and supportive services costs.

PRA residents in our analysis have somewhat lower utilization costs for each of our measures than their NED counterparts, but none of the differences are statistically significant. Costs for the other HUD comparison group have the reverse relationship. PRA residents have somewhat higher utilization costs for each of our measures than other HUD residents, but, again, none of these differences are statistically significant.

Exhibit 8.6: Healthcare and Disability-Related Services Costs for PRA, PRAC, NED, and Other HUD Residents




Note: PRA residents moved in during 2016 (or first two quarters of 2017 for Minnesota and Washington). PRAC, NED, and other HUD residents moved into their unit during 2013–2016 (or first two quarters of 2017 for Minnesota & Washington).

Sources: Abt Associates analysis of TRACS and PIC household data from the quarter ending on March 31, 2018; and Medicaid claims and encounter data for 2015.

## 8.5 Costs of Program Administration

The cost of labor to carry out the PRA program makes up the vast majority of administrative costs. This section describes how state agencies staff their programs and the level of effort that was reported as necessary to conduct all activities outlined in their Interagency Partnership Agreements. We then report total average administrative cost estimates for PRA programs, which include direct costs (travel and program-specific software) and estimates of indirect costs (for example, space, materials, management) required to support these staff. HUD also has costs associated with implementation of the PRA, which we discuss along with estimates of administrative costs associated with PRAC and the other comparison programs.

### PRA Program Staffing in State Housing and Health Agencies

The state-level partnerships in the study states typically consist of the state housing agency grantee and the state Medicaid agency. California and Maryland are exceptions in that they include additional partner agencies. Exhibit 8.7 shows the grantee and state housing and health agency partners.

Exhibit 8.7: Section 811 PRA Program State Agencies in Six States

| State | Grantee and State Housing Agency Partners | State Health Agency Partners |
|---|---|---|
| **California** | California Housing Finance Agency (Grantee)<br>Department of Housing and Community Development<br>Tax Credit Allocation Committee | Department of Health Care Services<br>Department of Developmental Services |
| **Delaware** | Delaware State Housing Authority | Department of Health and Social Services |
| **Louisiana** | Louisiana Housing Authority | Louisiana Department of Health and Hospitals |
| **Maryland** | Maryland Department of Housing and Community Development | Maryland Department of Health and Mental Hygiene<br>Maryland Department of Disabilities |
| **Minnesota** | Minnesota Housing Finance Agency | Minnesota Department of Human Services |
| **Washington** | Washington Department of Commerce | Department of Social and Health Services |

Source: Abt analysis of Section 811 PRA Cooperative Agreements.

**PRA programs are usually led by a PRA coordinator in the state housing agency, with a lead counterpart in the lead state health agency.** PRA programs are typically coordinated by one point person, the Section 811 PRA Coordinator, in both the state housing agency and the partnering state health agency. The coordinators are assisted by other parts of their organization or partnering agencies in awarding units, processing rental assistance payments, inspecting properties, and grant program monitoring. Those who lead or support the PRA program typically do not work full time on PRA and have additional responsibilities within their agencies. In the discussion below, we report PRA staffing as full-time equivalents (FTEs).

**On average, state agencies report an estimated combined 1.9 FTEs to administer the PRA program in 2017 (Exhibit 8.8).** The number of FTEs reflects the number of partnering state agencies and whether some PRA activities are conducted by other state agencies (or in one case, a contractor). On average, state housing agency staff (the grantees) reported that it took 0.9 FTEs to administer the program in 2017, ranging between 0.4 and 1.2 FTEs. PRA Coordinators spend between 30 and 100 percent of their time administering the program. Other state housing agency staff that spend smaller percentages of time on PRA include, by function, accounting, housing transition and contracts, housing inspectors, asset management, and accounting and budgeting.

Exhibit 8.8: State Housing and Health Agency Staff Administering the PRA Program, in Full-Time Equivalents

| State | FTE Grantee | FTE State Partners | Direct Costs and Uses | Direct Costs and Uses Detail |
|---|---|---|---|---|
| California | 0.9 | 2.3 | $2,000 | Travel |
| Delaware | 1.1 | 0.4 (estimate) | | Not reported |
| Louisiana | 1.2 | 1.1 | $3,600 | Travel, software licenses |
| Maryland | 1.0 | 3.1 | $33,380 | Travel, software and IT, marketing, translation |
| Minnesota | 0.4 | 0.8 | $2,500 | Travel |
| Washington | 0.6 | 0.4 | $2,500 | Travel |
| **Average** | **0.8** | **1.3** | **$7,700** | |

Note: Average is weighted by the number of PRA residents in each state.

Source: Data collected directly from grantees and program partners as part of the evaluation's data collection efforts.

Staffing for PRA in the state health agencies has a wider range. **State health agencies report an average of 1.3 full-time employees to administer the PRA program, ranging between 0.4 and 3.1 FTEs per state.** Staffing is largely reflective of the number of divisions or departments within the state health agencies involved with PRA, which itself reflects the populations targeted for PRA in each state.

Staff from state agencies on both the housing and health sides report that the PRA program continues to be administratively burdensome and take more staff time than the agencies had anticipated when they applied for the PRA grant. **State housing agency grantees report that staffing needs are leveling off as properties become leased, but state health agencies and program partner staff do not.**

In grantee interviews, staff from two of the state housing agencies reported that they think the amount of time they spend on the program has decreased somewhat as the work of identifying units and entering into contracts with owners has been ramping down. Other grantees say they expect their PRA work will stabilize after all the units are leased for the first time, but they expect the level of effort needed will remain high until then. As states get more units under contract, the work at the state housing agency is beginning to transition to ongoing program maintenance through monitoring reviews and physical inspections. Throughout, the state housing agencies still have the ongoing monthly work of processing rental assistance payments from HUD to owners.

In contrast, state health agency staff reported that they do not expect their level of effort to decrease that much as the program matures. These staff members support the tenant selection process, which will continue as PRA units turn over, as well as ongoing tenancy. Both housing and health agency staff report that the volume of PRA work can fluctuate throughout the year, sometimes significantly.

Many property staff interviewed also reported that the program was more administratively burdensome than other rent subsidy programs they administer, such as project-based Section 8 or LIHTC. Several factors may contribute to this perception. Unlike with other subsidy programs, PRA payments are not automatic; owners need to submit subsidy information to the state by a certain date each month. The PRA may also have different income requirements or calculations than other programs in which owners participate. While the related verifications and calculations may not necessarily be more difficult or time-consuming for owners for the PRA program than they are for other programs, introducing the new and sometimes unique requirements of an additional program to owners or inexperienced staff added a burdensome layer of complexity.

Some of the grantees anticipated that participating in PRA would require additional work by property owners. Owners in Minnesota and Delaware were required to have experience with TRACS, the software system used to report tenant data to HUD in order to process subsidy payments. In Louisiana, the state housing authority enters and processes data in TRACS on behalf of property owners who do not have access to the software.

## Estimated Annual PRA Program Administrative Costs

Exhibit 8.9 reports the costs associated with PRA program staffing and the additional direct and indirect costs of administering the PRA program. Property owners and supportive services providers also incur some administrative costs in housing PRA residents (and individuals in our comparison groups) and providing services to them. We do not assess any program-level costs for property owners, or service-provider administrative costs, however. Rather, we assume that these are costs of doing business that are partly reimbursed by the rental payments or Medicaid service payments that we include in previous sections of our cost analysis. [59]

***Grantee and partner agency average total per-unit annual administrative costs in 2017 were approximately $5,350, with grantees' share of these costs at approximately 46 percent.***[60] This estimate includes staffing, direct costs for software, travel, and third party contractors, and estimates of indirect costs for the additional resources that support the program (for example, office space and agency management). Variation in costs reflects variation in the makeup of the partnerships and in the target populations, which is detailed in Chapter 2.

Maryland is an outlier in terms of per-unit annual administrative costs, which reflects both the involvement and coordination among multiple partner agencies and that the state had only 50 PRA units under lease in 2017. Maryland has the lowest grantee share of administrative costs at 26 percent, reflecting the coordination of multiple partner agencies. California has the second-highest administrative costs per unit, and similarly takes a coordinated multi-agency approach reflected in the second-lowest grantee cost share of 33 percent, but with more units under lease at the time of data collection on administrative costs. The lowest per-unit administrative costs are in Washington, which has relatively lean staffing and 61-percent grantee share, and Louisiana, which has a large number of units under lease and an almost even split of grantee and partner administrative costs.

[59] Administrative cost overruns for specific PRA units or clients may be absorbed by rents for other units or claims for other clients. Alternatively, added costs could jeopardize owners' participation in the program and providers' ability to serve PRA residents. Both possibilities are left to future research. Most property owners we spoke with did not identify additional costs for complying with the PRA program. Owners and managers said that the time spent assisting PRA residents was about the same as time spent assisting other residents. There are a few areas where some managers did report spending additional time on the program relative to other assisted units, however.

[60] We asked grantees and partners for current staffing levels and annual expenditures on direct costs in our data collection. Some grantees reported detail for the fiscal year that mostly overlapped with data for 2017.

Exhibit 8.9: Estimated Annual Grantee and State Agency Partner PRA Program Administrative Costs

| | California | Delaware | Louisiana | Maryland | Minnesota | Washington | All |
|---|---|---|---|---|---|---|---|
| Per-unit annual program administrative costs (grantee and state agency partners) | $7,909 | $6,029 | $2,860 | $13,137 | $3,214 | $2,452 | $5,345 |
| Units under lease (September 2017) | 60 | 35 | 98 | 50 | 76 | 56 | 375 |
| Approximate grantee share of administrative costs | 33% | 72% | 53% | 26% | 36% | 61% | 46% |
| Projected units under contract by end of September, 2019 | 195 | 121 | 224 | 174 | 152 | 115 | 981 |
| Lower bound 2019 projected per-unit under RAC or leased annual program administrative costs | $2,433 | $1,744 | $1,251 | $3,775 | $1,607 | $1,194 | $2,043 |

**Notes: Units under lease from grantee quarterly budget reports for quarter ending September 30, 2017, in six study states. Project units under contract by end of September 2019 from quarterly budget reports ending September 30, 2018. Lower bound projection assumes that administrative staffing remains at FY 2017 levels while units leased increase to projected levels.**

**Source: Data collected directly from grantees and program partners as part of the evaluation's data collection efforts.**

With a substantial share of rental assistance grant funds remaining, PRA program grantees project substantial increases in units in the program. Grantees FY 2018 budget reports project the units under executed rental assistance contracts by the end of FY 2019 (September 30, 2019). This projection provides an alternative base for characterizing per-unit administrative costs. We use this alternative base to project a lower bound average cost per unit under RAC for 2019, which we also report in Exhibit 8.9. This is a lower-bound estimate, because it assumes administrative resources remain at the levels we measured (which were representative of FY 2017 costs) while units in the program increase to projected levels needed to utilize the committed rental subsidy funds.

In addition to staffing and indirect costs, grantees also incur direct costs for the PRA program, with details listed in Exhibit 8.8. **On average, the state PRA programs (grantees and partners) report total direct costs of about $7,700 per year.** Direct costs include training and travel to attend PRA training opportunities and meetings, production and translation of program documents and marketing materials, software for tracking and submitting resident and rental assistance payment information, and infrastructure and supplies. In some larger states, agency staff incur costs to travel from the capital, where the state agencies are typically located, to other places in the state to recruit owners and residents and to meet and train service provider organizations. In Washington, the state housing agency engages a third-party contractor to administer its rental subsidies. These costs are both small on a per-unit basis and likely to be relatively fixed as programs continue to add units.

## Sources of Funding for PRA Program Administration

HUD pays grant administration fees to grantees along with funding for unit rental assistance. While these fees offset much of the costs of grant administration, the PRA program also relies on additional grantee agency resources and partner agencies' resources, including general state funds, to administer the program.

### *PRA Grant Administrative Fees*

Grantees can use up to 8 percent of their PRA grant funds to pay for direct and indirect costs related to the PRA program. PRA grant administrative funding is provided both in the initial funding award and in subsequent grant renewals. As reported in Exhibit 8.10, ***together, the study grantees have drawn down 42 percent of their total awarded grant administrative fees through September 2018***, while drawing down 9 percent of total awarded rental assistance funds. Grantees used 8 percent of all administrative fees (for both FY12 and FY13 grants) in 2015, while leasing a total of 16 units. As expected for a new program, the number of units increased rapidly at first, and then more slowly, with a total of 480 units under lease by the end of 2018.

A comparison of Exhibits 8.9 and 8.10 shows that the study's **estimated costs ($5,532 annually per leased unit) of administering the PRA program, based on reported state agency and partner staffing, substantially exceed the amounts of administrative funds drawn (per leased unit)**. We estimate an ongoing annual cost per unit of more than $5,000, while the approximate annual per-unit administrative fee drawn

Exhibit 8.10: Section 811 PRA Grant Administrative Fees Awarded and Received, Program Years 2015-2018

| | 2015 | 2016 | 2017 | 2018 | Total |
|---|---|---|---|---|---|
| Total administrative fees drawn (six states) | $434,727 | $611,548 | $655,621 | $429,914 | $2,231,267 |
| # of units leased (cumulative) | 16 | 145 | 375 | 480 | Approx. 1,000 unit years |
| Average administrative fee per units leased | $27,170 | $4,218 | $1,748 | $896 | $2,231 |
| Percentage of total allocated administrative fees received | 8% | 11% | 12% | 8% | 42% |

**Source: Analysis of grantee 2015–2018 budget reports through the quarter ending September 20, 2018, in six study states.**

down is less than $2,231. In the study states, state health agencies and other program partners do not receive any PRA administrative fee. Several states acknowledged in their grant applications that they expected that their administrative costs would exceed the administrative fees (at the time set at 5 percent) and committed to providing the difference as in-kind leverage. These states report that they underestimated the actual staff time needed to administer the PRA program and are covering more staff time out of other programs than planned. Per-unit administrative costs may, however, decrease as the number of leased units increases and the PRA program matures, both at the federal level and within each state.

### *State Housing Agency Resources*

While the entire administrative fee goes to the state housing agencies (and in one case, their contractor), most state housing agencies have found that, so far, administrative fees received as part of the PRA grant have not covered their administrative costs associated with implementing the grant.[61] State housing agencies report that they supplement the administrative fees with other agency resources such as unrestricted operating funds, income-generating programs, and other HUD programs such as CDBG and HOME.

### *State Health Agency Resources*

Although the state health agencies do not receive any of the administrative fees, they usually conduct the ongoing and often time-consuming work of tenant selection and matching of applicants to available units. State health agencies report that the salary and benefits of PRA program staff are paid out of other state sources, including Medicaid MFP, other Medicaid funds, and unrestricted state funds. The state health agencies in our study said that, going forward, positions previously funded through MFP demonstration funds will be incorporated into the agency operating budget.[62]

Because PRAC does not require formal partnerships between housing providers and the state agencies, we do not consider any administrative costs for health agencies that direct supportive services that reach PRAC residents to be costs of the PRAC program itself. In contrast, such partnerships are required in the PRA program, and we include the cost of staff time and other resources from these partners to administer and coordinate the PRA program in our administrative cost estimates.

## Costs of HUD's Administration of the PRA Program and Administrative Costs in Comparison Programs

***Estimated costs of HUD's administration of the PRA program are approximately $435 per unit annually for the FY12 and FY13 grants.*** This estimate includes the HUD staff that manage the program, interact with grantees, and manage administrative data flows for the program. The cost estimate also includes technical assistance to PRA grantees provided by a contractor, as well as the costs to both applicants and HUD staff associated with the estimated level of effort needed for the grant solicitation and procurement process.

PRAC, NED, and other HUD programs also have administrative costs for HUD and for grantees. Administrative cost estimates for these programs are expected to differ from estimates for the PRA program for three reasons:

- **The PRA program is relatively new and is still incurring start-up administrative costs, while other HUD programs are well established.** Initial years of HUD's administration of the program included

[61] In one state, the grantee paid for some of the staffing costs of a PRA Coordinator in the state health agency until the position could be incorporated into the agency budget.

[62] We have included staff positions funded by MFP and Medicaid only when these staff are engaged in PRA program administrative efforts, such as coordinating referrals of PRA residents, managing wait lists, selecting and contracting units, and coordinating the program across agencies. Case management functions were not included in administrative costs but instead are considered to be supportive services.

developing processes and policies to support grantees.[63] In contrast, PRAC and NED and other HUD programs have well-established systems and procedures after decades in operation.

- **HUD programs are intentionally structured differently.** The PRA model is based on formalized state agency partnerships that contract units and manage ongoing rental payments to places that house program residents while maintaining access to services. Under the PRAC model, HUD provides funds directly to housing providers, both for initial property development and as an ongoing rental subsidy. Because of HUD's substantial capital investment, the agency monitors property finances on an ongoing basis as well as administering monthly rental subsidy payments.[64]

  PRAC property owners are required to have a supportive services plan certified by a state or local agency, and may have relationships with supportive service providers, but formal partnerships are not required among agencies. NED and other HUD programs that assist adults with disabilities are administered by local PHAs that also administer HUD's mainstream housing programs. These programs are normally not required to have plans or formal relationships around providing supportive services to program residents.

The PRA program assists people who, on average, have different health, disability, and sociodemographic characteristics than individuals in PRAC, NED, and other HUD programs. As presented in the seventh chapter, with the exception of PRAC, prior to being assisted by PRA, PRA residents have a much higher prevalence of healthcare utilization and chronic and disabling conditions than individuals in the comparison study groups. With these caveats stated, ***we estimate that the costs of HUD's administration of the PRAC program are approximately $359 per unit per year***. This estimate includes the HUD staff that manage the program, interacting with grantees, tracking property finances, and managing contracts associated with the program. It also includes the activities funded through these contracts, which include property inspection, technical assistance to owners, and media and advertising to increase awareness of the program.

PRAC owners also play a role in administering the rental assistance that funds units in their developments. While we did not interview, or otherwise collect primary data from, PRAC grantees for this study, our review of grantee annual financial statements suggests that costs associated with such administration are funded by the ongoing rental subsidies for the units. These costs are included in the costs of rental subsidies developed above.

**We estimate that the costs to HUD of administering NED and other HUD programs are about $62 per unit per year.** This rough estimate is based on the total salaries and expenses of the HUD office that administers HUD's public housing, tenant-based rental assistance, and Native American programs, divided by the total number of assisted units in the country that were administered in 2017. The estimate includes all staffing, non-personal services, and allocated agency overhead.

Local PHAs are tasked with most of the administration of HUD-assisted units. This administration includes determining recipients' eligibility, maintaining waiting lists, inspecting units, interacting with landlords, managing allocated budgets, and a host of other functions. A recent comprehensive study of administrative costs in the Housing Choice Voucher program (the largest rental assistance program) found an average monthly administrative cost per unit of $70.[65] We use the estimated average HCV administrative costs average to **estimate an annual cost per month to PHAs of administering NED and other HUD program units of $840**.

## 8.6 Total Estimated Costs and Cost Effectiveness

To assess the overall cost-effectiveness of PRA compared to other HUD programs, the study calculated per-individual costs of housing assistance, healthcare and disability service utilization, and administrative costs for people receiving assistance through the PRA program and each of our comparison programs.

### Summary of PRA Program and Comparison Group Costs

Exhibit 8.11 summarizes and totals our comparisons of PRA program cost estimates and estimates for our comparison programs.

[63] For example, HUD and its technical assistance contractor developed grantee and owner guides for participating in the program based in part on early grantees' experience and feedback.

[64] Administrative costs are associated with the LIHTC and other capital subsidies provided to properties that include PRA units. Except for where the agency administering the capital subsidy is an explicit partner to the PRA grantee and has staff dedicated to procuring units for the PRA program, we do not include costs of administering these capital subsidy programs as PRA program costs.

[65] The study also found that administrative costs are lower for people with fixed incomes such as SSI and no earnings, which is likely to be the case for the NED residents that are compared with PRA here.

**We estimate that the total annual cost per unit per year of housing assistance and program administration in the PRA program is $17,402.** Two-thirds of this cost is the combined value of capital and rental subsidies. Per-unit administrative costs may decline in coming years as more units come online and program processes continue to be refined and streamlined. We also include the more than $51,000 sum of Medicaid healthcare and supportive services utilization costs that we estimate in the exhibit. Because of the uncertainty associated with this cost (for example, due to data limitations and assumptions made), we do not add it to our program total.

Our analysis of the sample of PRAC properties, for which we have complete capital subsidy detail, finds that PRAC housing assistance costs are about $1,200 a year greater in these properties than in PRA properties. This is roughly the amortized value amount of the capital subsidy provided by sources besides the PRAC grant. A comparison to the full PRAC sample finds lower rental assistance costs in PRAC than in PRA, but higher capital subsidy amounts. **Taken together, we conclude that PRA and PRAC have similar total housing assistance costs (within $100 a month). The main differences in the housing assistance costs of the program are that capital subsidies for PRA come through the LIHTC program, in contrast to the HUD-funded PRAC capital grants.**

**Both NED and other HUD programs have rental assistance costs that are approximately $1,000 per year higher than the same costs in the PRA program.** However, these programs are sometimes in properties that receive capital subsidies and sometimes not. Data collection for capital subsidies for the NED and other HUD comparison groups was not in the scope of the cost analysis, so we do not know total housing assistance costs for these programs.

**Our estimates of administrative cost indicate that, as of our data collection period (late 2017 to early 2018), the PRA program had administrative costs that were higher than those in our comparison programs.** We identify three likely explanations. First, the PRA program is in a start-up phase, while the other programs are well established. Further, both HUD's and grantees' roles and responsibilities differ across the programs, with more inter-agency collaboration explicitly and formally built into program administration in the PRA program. Finally, PRA program grantees target populations with different health and disability characteristics and housing needs than the other programs.

Interviews with state agency staff uniformly report that the level of effort required to implement the PRA program has exceeded their expectations and that the administrative fee is insufficient to cover the costs needed to support the PRA population. As one state housing agency staff member states, ***"It's very intensive, especially in the first part of the program—finding the properties, working with the developers, for the partners it is also extremely intense during the lease up period. There's not enough money—even at 8 percent to cover our costs, there's no money to cover the partners' cost—and then on the back end, the monthly payments that the contract administrators have to do to make sure the properties get their payments every month, it's a lot."***

Another PRA staff member agrees that the staff time needed for the PRA program is substantial—***"I think it's been implemented well. [Agency] and HUD at the outset didn't realize how much time it would take to get a project from here to there and get people moved in. I don't think that there was enough clear instruction from HUD on how to do that and globally we didn't have a sense of how long it would take. The concept of the program is wonderful but it takes the sun, the moon and the stars to actually get these people moved in from a nursing facility."***

NED and other HUD programs have administrative costs of about $900 per unit per year. It is not likely that the PRA program could attain this level of administrative costs while reaching its goals. This is because the PRA program includes additional interagency collaboration, and serves a population that has, on average, more challenges in obtaining and maintaining housing, and has a greater need for supportive services.

Finally, **costs are fairly similar in magnitude (within 2 percent) between PRA and PRAC for the subset of healthcare and supportive services costs we measure**. Further research is needed to understand the higher costs we observe for our NED comparison group for HCBS use and inpatient care and the lower costs observed for the other HUD group, driven by much lower estimated HCBS costs offset somewhat by much higher costs of long-term inpatient stays. We also reiterate the overall evaluation limitation that our program-level primary data collection efforts were focused on understanding the PRA program and did not include PRAC program data collection.[66]

[66] It is possible, for example, that some PRAC programs have longstanding partnerships with organizations that provide supportive services to PRAC residents. Our estimate of program administrative costs may understate the administrative burden of these relationships. Our total cost estimates will not capture this burden if it is borne by sources other than HUD and average Medicaid reimbursement costs.

Exhibit 8.11: Per-Unit Annual Cost Estimates for PRA and Comparison Programs

| | PRA (41 properties, 408 units) | PRAC Complete Capital Subsidy (29 properties, 247 units) | PRAC Grant Only (435 properties, 3,145 units) | NED (2,523 units) | Other HUD (48,873 units) |
|---|---|---|---|---|---|
| **Housing subsidy costs** | | | | | |
| Rental assistance | $6,841 | $6,660 | $6,199 | $7,872 | $7,632 |
| Capital subsidy | $4,969 | $6,346 | $5,853 | Unknown | Unknown |
| **Total housing** | **$11,810** | **$13,007** | **$12,052** | Unknown | Unknown |
| **Program administrative costs** | | | | | |
| Grantee and partners | $5,345 | Partially included in rental subsidy | Partially included in rental subsidy | $840 (PHA) | $840 (PHA) |
| HUD | $435 | $359 | $385 | $62 | $62 |
| **Total administrative** | **$5,780** | **$359** | **$385** | **$902** | **$902** |
| **Total program cost** | **$17,590** | **$13,392** | $12,437 | $8,774 | $8,534 |
| Healthcare and disability services utilization costs | **$51,179** | | $50,321 | $56,025 | $34,204 |

**NA = not applicable.**

**Note: Research and data collection timelines required us to fix the sample for which we collected PRA capital subsidy data at an earlier time than the entire rental sample. At that time, we sought information for 43 properties that include 420 of the 540 PRA residents in the final analysis sample.**

## Cost-Effectiveness of the PRA Program

This chapter finds that the PRA program houses adults with disabilities at comparable to slightly lower cost than the PRAC program, with the capital subsidy portion of assistance shifting from HUD to the LIHTC program.

As reported in earlier chapters on housing and neighborhood impacts, PRA units are in larger, newer properties, with a substantial share of neighbors that are not receiving housing assistance linked to a disability. PRA residents report that they like where they live at similar rates as do PRAC residents, but they less frequently report knowing people in their buildings. Fewer PRA residents report their units are in excellent or good condition. PRA residents' neighborhoods have better walkability but worse environmental hazard scores and have higher poverty levels and lower levels of education. Our survey results also find that, while a majority of PRA residents express satisfaction with their neighborhood, the share is lower than for PRAC residents, and PRA residents are less likely to feel safe in the neighborhoods.

Taking the cost and impact findings around housing together, we conclude that the PRA program provides housing at a comparable or slightly lower cost than the PRAC program, for housing quality and experience that is comparable to or slightly less desirable than the PRAC program. This conclusion suggests that the PRA program is as cost-effective (but not more so) at providing housing than the PRAC program. In terms of HUD expenditures only, however, PRA is dramatically more cost-effective, as HUD capital subsidies in the PRAC program are replaced by LIHTC (and other) subsidies in the PRA program.

Preliminary evidence indicates that the PRA program has some effect in shifting the type of healthcare and amount of supportive services that program residents obtain from inpatient care to home and community-based services, as compared to PRAC and our other comparison programs. Our cost estimation approach translates these shifts in healthcare utilization directly into costs. After moving into PRA units, PRA residents have lower inpatient hospitalization costs and long-term inpatient stay costs, but these costs mostly offset higher costs of HCBS use. If this short-term pattern continues and use of HCBS services displaces avoidable hospitalizations and long-term institutional stays, we would conclude that the PRA program has positive impacts on combined healthcare and supportive services utilization that are cost neutral.

This comparable cost-effectiveness of housing currently appears to come at a higher administrative cost. However, we note that the PRA program is relatively new and still incurring start-up level administrative costs, while our comparison programs are well established. Additionally, while we measured administrative costs for the state agency partnership for PRA, we did not collect data to assess the extent of any similar formal or informal

partnerships around the PRAC or NED programs. Finally, the PRA program may more frequently target individuals that require greater administrative resources to be successfully housed than comparison programs, notably including individuals with disability experiencing homelessness. Given these caveats, further research is needed to assess the cost-effectiveness of administrative costs in the PRA program.

# PRA Program Practices that May Lead to Successful Results

HUD designed the PRA program so that state agencies have the flexibility to tailor their PRA programs to meet the needs of their states' target populations, and in response to state policy priorities. Grantees can make a number of decisions that can affect their progress in meeting the goals of their state PRA programs, how many people they ultimately assist with their PRA grants, and the characteristics of these residents and where they live. These decisions include how the agencies select and prioritize the state's PRA target population, how the state selects properties where PRA can be used to provide rental assistance for people with disabilities, and how PRA applicants are matched to affordable housing that meets their needs and preferences. All of these strategies can also affect the amount of time that PRA program staff spend on administering the PRA program and how much it costs the state and their partners to administer the program.

**This chapter explores the relationships we observed between elective strategies established by state PRA programs and trends in program data.** The analysis uses state-level data from grantees' quarterly progress reports to assess whether there are differences among states or trends over time in certain key program measures: the number and characteristics of PRA applicants and residents, ineligibility rates of applicants and characteristics of those found ineligible, and the percentage of PRA units identified and under lease for the PRA program compared to program projections.

**Where we identified differences among states or trends in program data over time, we examined strategies that states adopted that may have influenced these differences and trends.** We also asked staff from state agencies and local partners that administer the program what strategies and program features they thought contributed to these trends, what challenges they have experienced while implementing the program, and what they believe have been the tools, strategies, and relationships that have contributed to them meeting these challenges.

**The study does not try to determine the effect of specific strategies, tools, or relationships on program outcomes or trends in data and does not attempt to compare strategies to the program outcomes on tenancy, healthcare utilization, or properties and neighborhoods that are presented in the fourth through seventh chapters.** Instead, we offer these observations to suggest areas of program modification or further exploration and to provide information for state PRA programs on practices and strategies that other state agencies say work for them.

This chapter explores the relationship between strategies and results in six areas of the PRA program: selecting and prioritizing state target populations; removing applicant barriers to eligibility; identifying quality, cost-effective units for PRA; aligning tenancy supports with resident needs and preferences; and developing effective and sustainable PRA partnerships.

## 9.1 Strategies for Selecting and Prioritizing Target Populations

States' choices about whom to target and how to set priorities among target populations affects who the PRA program ultimately assists. Comparing applicant and resident data among states and over time, we found that states that prioritized people exiting institutions over other applicants have assisted higher rates of these residents than states that do not prioritize these applicants. Similarly, states that identify or prioritize people experiencing homelessness and actively conduct outreach to those populations have higher rates of residents that were experiencing homelessness directly prior to being assisted by PRA. This section discusses strategies that PRA program staff and partners in these states report have been successful in reaching and referring eligible members of their states' target populations.

### Results of Selection and Prioritization of PRA Target Populations

As a result of state outreach strategies, 27 percent of PRA residents assisted by September 2018 were previously living in an institution and 20 percent were homeless just before being assisted by PRA (Exhibit 9.1). An additional 33 percent were reported to be at risk of becoming homeless or institutionalized unless they gained access to affordable housing. Another 6 percent had previously lived in a group home, adult care home, or other residential care setting. The previous living situation is not known for the remaining 14 percent.

Exhibit 9.1: Grantee-Reported Living Situation of PRA Applicants and Residents, September 2018

| | Applicants 2015-2018 | Applicants on Waiting List as of September 2018 | FY12 and FY13 Residents |
|---|---|---|---|
| Number of applicants | 6,781 | 3,237 | 725 |
| Institutionalized | 13% | 8% | 27% |
| At risk of institutionalization | 11% | 11% | 13% |
| Homeless | 23% | 30% | 20% |
| At risk of homelessness | 18% | 8% | 20% |
| Living in a group home, adult care home, or other residential setting | 7% | 12% | 6% |
| Other/unknown | 29% | 31% | 14% |
| **Total** | **100%** | **100%** | **100%** |

**Note: Percentages may not add to 100 percent due to rounding.**

**Source: Abt analysis of 2015-2018 Section 811 PRA Quarterly Reports through the quarter ending September 30, 2018, in six study states.**

### *Selecting and Prioritizing People Exiting Institutions*

Four states prioritize people residing in institutions over other applicants, and three of these states had the highest percentage of PRA residents coming from institutional settings: California (41 percent of all residents), Washington (38 percent), and Maryland (34 percent). All three states prioritized people living in institutions over other applicants and built their applicant outreach procedures off existing MFP procedures and systems. The PRA partnerships in Maryland and Washington also committed to using some of their MFP grant funds to help pay for PRA program administrative costs.

Some challenges are unique to individuals living in institutions. Service providers reported that, while individuals living in nursing facilities often expressed interest in living in independent housing, their actions show otherwise. Individuals may not be ready or willing to move when they say they will be. They may have current medical needs, may not have completed the required paperwork, or have apprehension about living alone. As the Medicaid agency staff in one state noted ***"They want to get out [of an institution] and will take anything to get out. [They] might be frightened to leave and go out on their own. They don't want to live in a nursing home, but they're afraid. They decline and act like it's a problem with the unit, but I think that it's really a fear of being alone in the community."***

In states with PRA waiting lists, possible residents are identified based on unit size and accessibility, position on the waiting list determined by application date, readiness for independent living, and preferences for location and property amenities. This allows the state agency to provide a property owner with a ranked list of eligible and appropriate applicants, rather than have owners lease units on a "first come, first served" basis.

### *Targeting People Experiencing or At Risk for Homelessness*

Homelessness raises distinct challenges to applicant matching. For example, caseworkers are not always able to locate applicants when their name comes to the top of the waiting list. People experiencing homelessness may lack a fixed address and could have moved several times between when they are put on the waiting list and when a unit becomes available. Some potential applicants may be hospitalized or in other institutional care when they reach the top of the list. In general, state agency staff found that the longer someone was on a waiting list, the more difficult it was to find the person once the person's name came to the top of the list.

While people experiencing homelessness are eligible for PRA units in all six states, four states (California, Louisiana, Maryland, and Minnesota) have been specifically targeting people who are homeless or at risk for homelessness. States that had developed targeted outreach to people experiencing homelessness had higher percentages of residents who were previously homeless before being assisted by PRA.

In Minnesota, almost two-thirds of PRA residents (65 percent) had been homeless prior to moving into a PRA unit, reflecting the extensive outreach to this target population. State agencies work with organizations in Minnesota funded by Projects for Assistance in Transition from Homelessness (PATH) to identify potential applicants

without fixed addresses who may be living in shelters or living on the street. The Minnesota Department of Human Services (DHS) initially developed a state-wide waiting list but found that approximately 40 percent of applicants could not be located or were no longer in need of housing when their name came to the top of the list. As a result, DHS changed to a more real-time matching process that prioritizes potential residents based on current health status and readiness to move when a unit is available, and reports this has reduced staff time in trying to locate applicants who may no longer be interested in PRA.

The state with the next highest proportion of residents in PRA housing who were previously homeless is Washington State, with 23 percent. State health agency staff in Washington State also work closely with local homeless outreach providers to identify potential PRA applicants. In Louisiana, 9 percent of all residents were previously homeless but 54 percent were reported to have been at risk for homelessness prior to being assisted by PRA. Louisiana's PRA program addresses priorities in its Ten-Year Plan to End Homelessness. To reach potential PRA applicants, referral organizations in Louisiana provided information about PRA at a monthly outreach event that people experiencing homelessness often attend.

Fewer residents had previously been homeless in California (1 percent of residents) and Delaware (6 percent) than in the other study states. Delaware did not identify people experiencing homelessness as a target population for their PRA grant and prioritized people exiting institutions over other applicants. While California's 2012 PRA grant did not specifically identify people experiencing homelessness as a target population, the state's FY13 grant targets people experiencing homelessness in the Los Angeles area. As of September 2018, California had not yet started leasing units funded in 2013.

*Reaching Individuals Not Enrolled in Services*

To be eligible for PRA, applicants must be eligible for Medicaid or state plan HCBS. Since services are voluntary, PRA applicants and residents need only be eligible for HCBS, and not enrolled in these services. In order to reach individuals who are not enrolled in HCBS but are eligible for PRA, some of the study states developed additional outreach procedures to locate these individuals, educate them on the PRA program, and assess their eligibility for housing assistance.

People experiencing homelessness or at risk for homelessness may be less connected to services and less likely to have a Medicaid case manager with whom they maintain regular contact. To locate such individuals, some states that required applications to come through referral organizations also connected with other organizations to expand their reach. In Delaware, the state housing agency sent PRA promotional materials to shelters and other organizations that serve people who may not be actively receiving Medicaid services. Those organizations were then directed to a referral organization to apply on behalf of individuals. Service providers in Louisiana also held meetings with people who were facing eviction or were using food banks, to let them know about the PRA resource.

Broader outreach can result in more applications from people who turn out to be ineligible. In Louisiana, a significant percentage of applicants that applied did not have a qualifying disability or were not eligible for Medicaid HCBS.

## 9.2 Removing Barriers to Applicant Eligibility for PRA

Between 2015 and 2018, about 19 percent of applicants did not meet the PRA program's requirement for age, income, or eligibility for services, or did not meet the state's target population definition. In addition, 14 percent of applicants did not meet the leasing requirements of the property where they applied to live. The rates of ineligibility varied among states and over time, and in some states the rate of ineligibility decreased over time. This section compares ineligibility rates among states and over time and identifies strategies that PRA program staff and their partners identified as contributing to improving the rate of acceptance of applicants to the PRA program and to specific properties.

### Applicant Eligibility Rates by State and Over Time

As long as residents meet PRA statutory program requirements, Section 811 PRA grantees are allowed flexibility in identifying potential PRA residents and confirming their eligibility. In five of six study states, the state departments of health or disability manage the tenant selection process, rather than the state housing agency, and potential PRA residents apply to the PRA program through approved referral organizations only. State health agency staff or contracted service provider organizations typically conduct direct outreach to the target population and determine applicant eligibility for PRA. These state agencies had already been providing or coordinating services for the PRA target populations through Medicaid waiver programs, MFP, and other programs, creating a built-in pipeline for referrals to

the PRA program. Referral organizations also include organizations that help people experiencing homelessness find housing.

Exhibit 9.2 shows the number of applicants for the PRA program, the number of applicants referred to properties to complete lease applications, and the number and percent of applicants found ineligible at each stage. In the first three years of the program, 6,770 individuals applied to the PRA program in the six study states. **PRA program staff found that almost one in five of these applicants (19 percent) either did not meet the PRA program requirements for age, income, or eligibility for home and community-based services, or did not meet the state's target population definitions.**

As of September 2018, approximately 2,000 households had applied at properties where PRA units are under contract in the study states. **Fourteen percent of referred applicants were found not to meet the property's leasing requirements.** Exhibit 9.2 shows the percentage of applicants who were found ineligible for the PRA program and found to not meet property requirements by state.

Exhibit 9.2: Applicants Found Eligible for the PRA Program in the Six Study States, Program Years 2015–2018

| | Total | California | Delaware | Louisiana | Maryland | Minnesota | Washington |
|---|---|---|---|---|---|---|---|
| Applicants to PRA program | 6,770 | 248 | 775 | 2,111 | 2,853 | 528 | 255 |
| Applicants ineligible for PRA program | 1,255 | 55 | <10[a] | 1,078 | 66 | 35 | >10[a] |
| % ineligible of applicants for program | 19% | 22% | <2%[a] | 51% | 2% | 7% | >4%[a] |
| Applicants referred to properties | 2,009 | 183 | 678 | 455 | 173 | 279 | 241 |
| # of referred applicants ineligible for property | 278 | <10[a] | 66 | 28 | >10[a] | 88 | 78 |
| % of referred applicants ineligible for property | 14% | <3%[a] | 10% | 6% | >6%[a] | 32% | 32% |

[a] Values not shown due to small sample reporting restrictions.

Source: Abt analysis of 2015-2018 Section 811 PRA Quarterly Reports through the quarter ending September 30, 2018.

## Applicants Found Ineligible for the PRA Program

The percentage of applicants found ineligible for the program (for age, income, eligibility for services, or disability status) varies widely by state, reflecting the different outreach procedures of PRA programs in the study states.

**Most (86 percent) of the ineligible applicants among the six study states were in Louisiana, where the PRA application is available to the public.** More than half (51 percent) of PRA applicants in Louisiana were found ineligible for the PRA program between 2015 and 2018. Only in Louisiana can the public apply directly to the PRA program, where the PRA application is publicly available on the Louisiana's Department of Health's website. Louisiana's potential tenants may hear about the waiting list through shelters or service providers, but those providers do not screen them, nor are they responsible for putting the potential tenants on the waiting list. As a result, the most common reason that applicants in Louisiana were found ineligible for the PRA program was not being eligible for HCBS (67 percent).

In states with closed referral procedures, the most common reasons applicants were determined ineligible for the PRA program were being over age 62 or having household incomes that were too high (Exhibit 9.3). Applicants may age out of eligibility while they are waiting for available PRA units, and changes in the local area median income could affect an applicant's eligibility status. In Maryland, staff from the state housing agency commented that a change in AMI from one year to the next was so significant that 10 percent of applicants on the waiting list were deemed ineligible for the program.

Exhibit 9.3: Reasons Applicants Were Found Ineligible for the PRA Program, Program Years 2015–2018

| Reason for Ineligibility | 2015<br>160 | 2016<br>368 | 2017<br>369 | 2018<br>358 | Total<br>1,255 |
|---|---|---|---|---|---|
| Not disabled | 8% | 0% | 18% | <3%[a] | 7% |
| Over income | 11% | 9% | 11% | 11% | 10% |
| Not eligible for services | 71% | 74% | 62% | 62% | 67% |
| Over age 62 | <7%[a] | <3%[a] | <3%[a] | <3%[a] | 1% |
| Criminal history | <7%[a] | 8% | 6% | 4% | 6% |
| Other | <7%[a] | <3%[a] | <3%[a] | 7% | 4% |
| Unknown | 16% | 10% | 8% | 19% | 13% |

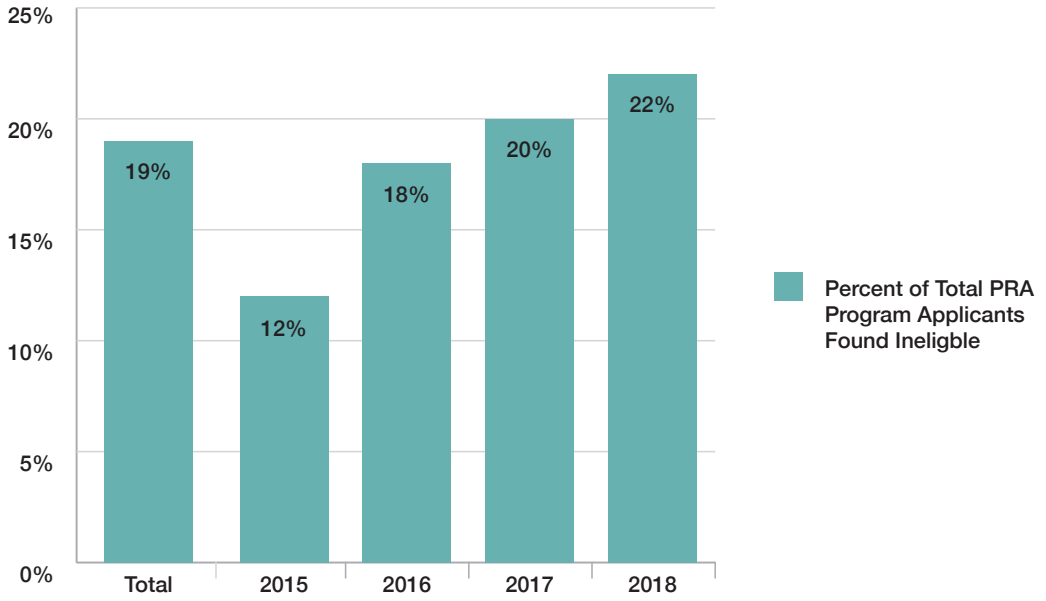
[a] Exact percentages not shown due to small sample reporting restrictions.

Note: Applicants could be determined ineligible for more than one reason, so totals do not add up to 100.

Source: Abt analysis of 2015-2018 Section 811 PRA Quarterly Reports through the quarter ending September 30, 2018, in six study states.

The percentage of applicants found ineligible for the PRA program has fluctuated since the program began but has been higher in recent years. Ineligible program applicants have increased in California and Maryland, reaching 60 and 41 percent respectively in 2018. Almost all of California's ineligible applicants were reported to be at risk for homelessness. In 2018, California began outreach to people experiencing homelessness, a target population for the state's 2013 PRA grant. Leasing under this grant just began in 2018. The PRA eligibility trends are shown in Exhibit 9.4.

Exhibit 9.4: Percentage of Applicants That Did Not Meet PRA Program Requirements, Program Years 2015–2018




Source: Abt analysis of 2015–2018 Section 811 PRA Quarterly Reports through the quarter ending September 30, 2018, in six study states.

## Applicants Found Ineligible for the Properties

**Between 2015 and 2018, 14 percent of applicants referred to specific properties did not meet the leasing requirements of the property.** Property owners require that Section 811 PRA residents meet the same criteria as other residents at the property, including undergoing screening for criminal history, credit history, rental history, and income.

**More than half of the applicants who were denied units (56 percent) were denied because of criminal history.** Others were denied because of poor credit histories (20 percent) and poor rental histories (14 percent). Fewer (6 percent) were rejected for not submitting the required documentation. (See Exhibit 9.5.) State agency staff and service providers we interviewed attributed this change to improved practices, as case managers have learned more about each property's eligibility requirements and what applicants are required to provide when they apply. Staff also attributed the change to improved prescreening of applicants to determine whether they meet the property's eligibility requirements before referring applicants to the property to complete a lease application.

Ineligibility decisions can also stem from the misunderstanding of PRA eligibility requirements, particularly around calculating income and the tenant's portion of rent. Sometimes housing providers must apply stricter guidelines for housing eligibility for PRA applicants than for other housing subsidy programs in their building. For example, tax credit properties may have higher maximum income thresholds and calculate the tenant's portion of the rent payment differently from PRA. Service providers also reported that owners did not always take a person's medical costs into consideration when calculating household income and total tenant payment. They noted that some applicants may have been denied at properties based on this calculation.

## Strategies Used to Remove Barriers to Eligibility

**Strategies that state agencies and local partners developed to reduce eligibility barriers have caused the percentage of applicants who did not meet the property lease requirements to decrease by half between 2016 and 2018 (Exhibit 9.6).** Three states, California, Louisiana and Maryland, had consistently high acceptance rates by property owners between 2015 and 2018.

Exhibit 9.5: Reasons Applicant Lease Applications Were Not Accepted, Program Years 2015–2018

| Reason Application Was Not Accepted | Total |
|---|---|
| N | 278 |
| Criminal history | 56% |
| Poor credit | 20% |
| Poor rental history | 14% |
| Unable to submit required documentation | 6% |
| Other | 15% |

**Note: Applicants could be denied units for more than one reason, so total does not add to 100 percent.**

**Source: Abt analysis of 2015-2018 Section 811 PRA Quarterly Reports through the quarter ending September 30, 2018, in six study states.**

### *Automating Program Application and Eligibility Procedures*

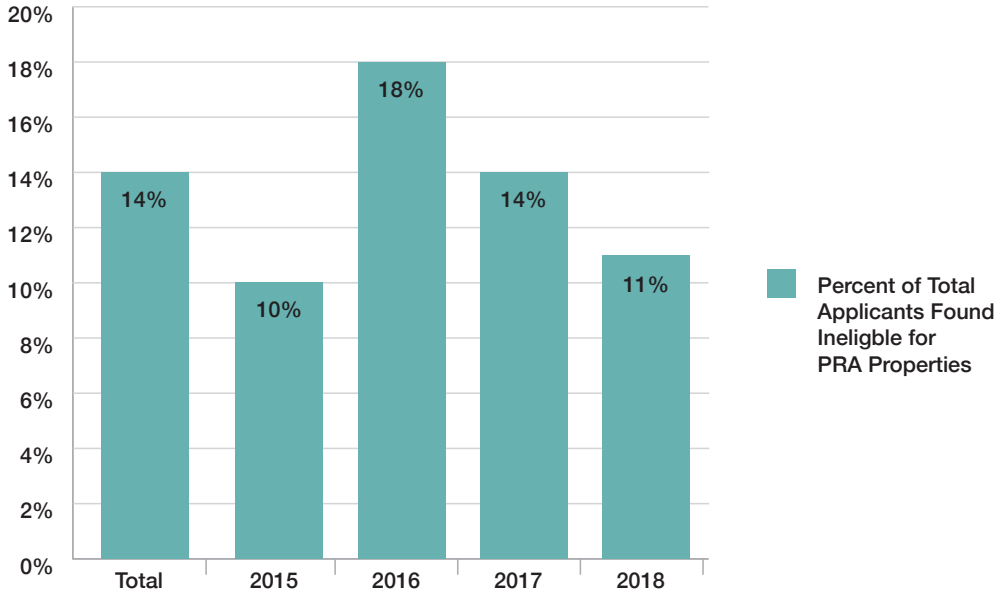
Automated, web-based application tools can help case managers determine eligibility before referring applicants to properties to complete applications. The tools also helped case managers quickly learn about the eligibility status of the people they assist. In Delaware, applicant eligibility is determined immediately upon submittal of the person's birth certificate, license or other identification, Social Security award letter, and proof of Social Security number. In Louisiana, the state health agency accepted applications electronically and added drop-down menus when they realized that service providers were not submitting uniform information. In Washington and Maryland, state health agency staff use an online tool to enter applicant information and to determine eligibility for Medicaid and other PRA eligibility requirements.

### *Support from Service Providers and Property Managers*

Both service providers and property managers may help PRA applicants with the complicated program-level and property-level processes for eligibility determination. Service providers report that working with PRA applicants as early in the process as possible helps improve the applicant's likelihood of meeting PRA eligibility requirements. Service providers often help residents obtain proper identification and documentation of income prior to applying to PRA. This can include helping applicants obtain documentation for their SSDI, SSI, or other benefits, correct inaccurate information on credit or rental histories, and resolve outstanding utility or rental debt.

Property owners are also often willing to assist applicants, and some properties have created pre-application packages to help move the process along quickly. Some

Exhibit 9.6: Percentage of PRA Applicants Whose Lease Applications Were Not Accepted by Owners, Program Years 2015–2018




Source: Abt analysis of 2015–2018 Section 811 PRA Quarterly Reports through the quarter ending September 30, 2018, in six study states.

property managers allow applicants to provide personal statements explaining any extenuating circumstances that resulted in a poor credit history, rental history, or criminal background that would make them ineligible to live at the property. Some PRA programs offer extra incentives to property owners participating in the program to help mitigate the risk associated with accepting tenants with challenges to successful tenancy. As an example, in Washington, the state health agency will offer a larger security deposit for individuals with poor credit or a criminal background. Overall, case property managers and case managers who work with PRA applicants felt these strategies helped address issues early and speed up the process of leasing the unit.

### *Use of Reasonable Accommodation Requests to Appeal Lease Rejections*

Service providers have sometimes succeeded in getting reasonable accommodation from property owners when applicants had first been denied based on the results of a criminal or credit background check that could be attributed to a person's disability. Under the Fair Housing Act, property owners in HUD programs must provide "reasonable accommodations in rules, policies, practices, or services when such accommodations may be necessary to afford persons with disabilities an equal opportunity" to access and receive housing assistance.[67]

Case managers report that they also attempt to anticipate these denials by obtaining these criminal records and credit reports themselves early in the application process. Some case managers will even include an appeal with the original lease application when they believe the client will automatically be denied a unit. Educating property owners on reasonable accommodation requests and laws protecting the rights of people with disabilities has also been effective in reducing ineligibility rates. In Minnesota, one property owner denied more than half of applications. State health agency staff met with the property staff, the state housing agency, and a Legal Aid to address the issue.

## 9.3 Identifying and Securing Quality, Cost-Effective PRA Units

The six states have had varying rates of success at getting PRA units under contract and under lease. States that tied the allocation of PRA units to LIHTC awards, switched their focus from placing units in existing multifamily housing to new construction properties, and received approval from HUD to increase contract rents in high-cost areas were able to identify all or most of their planned units. However, these strategies also come with tradeoffs such as reducing the number of PRA units a state will be able to support as a result of increasing contract rents.

[67] https://www.hud.gov/program_offices/fair_housing_equal_opp/reasonable_accommodations_and_modifications

## Percent of Estimated PRA Units Under Contract and Under Lease

State housing agencies enter into Cooperative Agreements with HUD that include the estimated number of PRA units that their PRA grant funds are expected to assist. Through September 2018, study grantees had contracts in place with owners for more than half of planned units and had identified properties for most of the rest of their planned units. We measured progress in identifying units for PRA using three metrics:

- **Percentage of estimated units under lease by PRA residents.** The states that had the highest PRA leasing rates were Minnesota (91 percent) and Louisiana (62 percent), followed by Washington (52 percent) and Maryland (49 percent).
- **Percentage of estimated units under contract with owners for specific properties.** As of September 2018, grantees in the study states had entered into contracts with property owners for 78 percent of planned FY12 units. Louisiana and Minnesota had all of their planned PRA units under contract with owners. Delaware had 78 percent of their planned units under contract, Washington had 65 percent, California had 55 percent, and Maryland had 49 percent.
- **Percentage of estimated units identified but not yet under contract.** While not all planned units were under contract as of September 2018, grantees in five of the study states had identified all of the properties where they planned to use PRA subsidies for the 2012 grants. Two states, Minnesota and Louisiana, had identified more units than the estimated number of units in their Cooperative Agreements with HUD.

Five of the six study states have identified nearly all of their units estimated to be funded under their 2012 grants. Units that are identified but not under contract yet are in properties that are under construction and will be placed under contract for PRA closer to when the property will be available for lease. Grantees may sign written agreements to signal their commitment to enter into a contract with the owner at a later date.[68]

Only in Delaware had the state housing agency not identified all of its estimated PRA units. The agency planned to award the remaining units through future tax credit allocations. Grantees expect to eventually enter into contracts with owners for identified units once the initial leasing date is near; however, owners are not contractually bound to make units available to the PRA program until they sign the contract with the state housing agency grantee. Exhibit 9.7 shows unit status by grant year and study state.

Exhibit 9.7: Status of Planned Section 811 PRA Units by State, September 2018

| | FY12 | | | | FY13 | | | |
|---|---|---|---|---|---|---|---|---|
| State | # of Planned Units | % of Units Identified | % Units under Contract | % Units Leased | # of Planned Units | % of Units Identified | % Units Under Contract | % Units Leased |
| California | 233 | 96% | 55% | 36% | 200 | 17% | 0% | 0% |
| Delaware | 148 | 82% | 78% | 42% | | | | |
| Louisiana | 199 | 128% | 128% | 62% | | | | |
| Maryland | 150 | 115% | 49% | 49% | 150 | 86% | 5% | 4% |
| Minnesota | 85 | 99% | 99% | 91% | 75 | 104% | 37% | 13% |
| Washington | 133 | 100% | 65% | 52% | | | | |
| **Total** | **948** | **104%** | **78%** | **51%** | **425** | **56%** | **7%** | **3%** |

**Source: Abt analysis of 2015-2018 Section 811 PRA Quarterly Reports through the quarter ending September 30, 2018.**

[68] Written agreements can include memoranda of understanding (signed by the grantee and the owner); tax credit or other funding award letters signed by the funders (which may or may not be the grantees); or a letter of agreement or commitment signed solely by the grantee.

States are not as far along with their 2013 grants, typically leasing their 2012 units first since their grant period will end first. Of the study states, only California had not yet identified the majority of their estimated 2013 units. In Minnesota and Maryland, grantees have identified their 2013 units in new construction properties.

Units under contract in existing properties become available for PRA applicants once there are vacancies in the properties and according to the property's tenant selection plan. Grantees approve owners' tenant selection plans that include policies for how applicants are matched to units. The plans address how many applicants are referred to complete applications for each available unit, how owners should prioritize one PRA applicant over another, and how vacant units are filled between PRA applicants and other applicants.

As of September 2018, vacancy rates of PRA units under contract with owners in the six states ranged from 0 to 7 percent. Although vacancy rates were low, three of the study states had high percentages of PRA units under contract that were unavailable for PRA residents because they were still being occupied by other, non-PRA residents or because the units were not yet available for lease (Exhibit 9.8). For new construction and properties being rehabilitated, grantees typically enter into contracts with owners about six months prior to the unit being available for PRA residents. More than half of PRA units under contract (52 percent) were unavailable for PRA residents in Louisiana, 43 percent in Delaware, and 34 percent in California.

Exhibit 9.8: Units Identified, Under Contract, and Under Lease for PRA, September 2018

| State | FY12 PRA Grants | | | | FY13 PRA Grants | | | |
|---|---|---|---|---|---|---|---|---|
| | # of Units Under RAC | % of Units Under Lease | % Units Vacant | % Units Unavailable | # of Units Under RAC | % of Units Under Lease | % Units Vacant | % Units Unavailable |
| California | 128 | 66% | 0% | 34% | 0 | 0% | 0% | 0% |
| Delaware | 115 | 54% | 3% | 43% | | | | |
| Louisiana | 255 | 48% | 0% | 52% | | | | |
| Maryland | 73 | 100% | 0% | 0% | 8 | 75% | 25% | 0% |
| Minnesota | 84 | 92% | 7% | 1% | | | | |
| Washington | 87 | 79% | 3% | 17% | | | | |
| **Total** | **742** | **66%** | **2%** | **32%** | **36** | **44%** | **6%** | **50%** |

**Source: Abt analysis of 2015-2018 Section 811 PRA Quarterly Reports through the quarter ending September 30, 2018.**

## Study State Adaptations to Secure More PRA Units

At first, the states that were most successful in placing units under contract were those that awarded at least some of their PRA units to properties that were already in operation as affordable housing. Over time, grantees have tried to attract properties under development—for example, tying the award of PRA units to LITHC allocations. They have also leveraged existing relationships with owners of affordable multifamily housing and increased PRA rents offered to owners in high-cost areas.

### *Increasing PRA Contract Rents in High-Cost Areas*

State housing agencies found increasing contract rents to the highest allowable by the program to be a very effective strategy for obtaining owner participation in competitive housing markets. Increasing rents will, however, reduce the number of PRA units the grant will support.

In California, the grantee had committed only one-quarter of the grant funds after 16 months. After increasing rents to FMR, the grantee was able to identify properties for the remaining three-quarters of its PRA funds within a year. In Washington, the state housing agency had difficulty attracting owners in the high-cost Seattle area. As in California, the grantee reported that increasing contract rents helped them attract owners and also helped the program secure higher-quality units in locations where many prospective PRA residents want to live.

Exhibit 9.9 shows the effect of increasing rents on the number of units the grants can support. Combined, grantees estimate they will assist 280 fewer PRA units, an overall reduction of 17 percent of estimated PRA units for the six study states.

Exhibit 9.9: Change in Estimated PRA Units as a Result of Average Expected Increases in Contract Rent

| State | Estimated Units in Cooperative Agreement | Current | Change | % Change |
|---|---|---|---|---|
| California | 618 | 433 | -185 | -30% |
| Delaware | 148 | 148 | 0 | 0% |
| Louisiana | 199 | 199 | 0 | 0% |
| Maryland | 303 | 300 | -3 | -1% |
| Minnesota | 170 | 160 | -10 | -6% |
| Washington | 215 | 133 | -82 | -38% |
| **Total** | **1,653** | **1,373** | **-280** | **-17%** |

**Source: Abt analysis of 2015-2018 Section 811 PRA Quarterly Reports through the quarter ending September 30, 2018, in six study states.**

PRA partnerships in Maryland and Louisiana initially set their rents at FMR, the maximum allowed by HUD. These grantees reported this approach made it relatively easy to recruit owners. As of September 2018, Louisiana had placed more than its planned units under contract with owners. The grantee reported that having more units under contract than the total they expect to use will create greater flexibility in matching applicants to units.

*Providing Vacancy Payments to Owners*

**Another measure of how well states match applicants to PRA units is the percentage of units under contract for PRA that have been leased with PRA residents.** As of September 2018, grantees report vacancy rates of PRA units for the six states range from 0 to 7 percent. In California and Delaware, all available PRA units under contract are leased.

While vacancy rates are low, when they occur, PRA grants can be used to compensate owners for lost rent if an owner needs to hold a unit until a PRA applicant is ready to move in or if a PRA resident moves out without appropriate notice. HUD allows grantees to set vacancy payments at up to 80 percent of the unit's rent for up to 60 days. (See discussion of vacancy payment costs in the second section in the eighth chapter.)

Grantees can also establish policies that offer less compensation to owners, and some chose to do so. Even in states that provide the maximum allowable vacancy payments, several owners reported that they do not always get this compensation. Some owners reported not requesting payments because they would only cover a few days and were not worth the effort. Other owners reported they automatically submit requests for vacancy payments to the state housing agency for all days PRA units stayed vacant each month.

## 9.4 Ensuring PRA Residents Receive Tenancy Supports They Need

Tenancy supports are available to PRA residents from pre-move through ongoing tenancy to help them live independently in the community. The study found that not all residents receive the supports they need (see the sixth chapter). The study team interviewed property owners where PRA residents live, service providers who work with PRA residents, and state agency staff who administer the PRA program about the challenges of ensuring that PRA residents receive the services and support they need to remain independent in their homes.

While most ongoing tenancy supports are funded through Medicaid, funding for transition services is limited and varies widely by state and even by the individual PRA resident. In addition to limited resources for tenancy supports, service providers spoke about challenges posed by the voluntary nature of supports, the differences in support needs among residents, and the high turnover and large caseloads of their profession.

### Challenges in Coordinating Tenancy Supports for PRA Residents

*Enrollment and Participation in Services is Voluntary*

Enrollment in Medicaid HCBS and other tenancy support services and continued participation in these services are voluntary, and not all participants elect to receive them. PRA residents must be eligible for Medicaid services but cannot be required to accept these or other services and may discontinue participation in services at any time while retaining their eligibility for housing. Property managers and service providers both noted that the voluntary

nature of services can be problematic, particularly when residents with mental health needs dis-enroll from case management, and property managers no longer have a case manager counterpart with whom to coordinate a response to a crisis.

Some property managers raised concerned about residents with behavioral or mental health issues who do not agree to receive services, which results in negative social behaviors and potential disruption or property damage.

### *Providing Adequate Transition and Ongoing Supports*

Property managers told us that some individuals need more help than they receive when moving into a PRA unit. In most states, resources to assist residents with the physical move to a PRA residence are scarce. Transition providers were also frustrated by their inability to fill certain needs, such as assisting with food stamp eligibility or procuring household cleaning products. To address these challenges, one service provider recommended a flexible funding pool to be used as needed during the move-in process.

Once PRA residents have moved in, additional needs may surface. While the PRA program subsidizes monthly rent, many PRA residents lack adequate funds for food, utility payments, and cleaning supplies. PRA residents may be new to managing a household budget and could benefit from personal finance training. Property managers and service providers reported that some PRA residents may also need help understanding community rules and standards such as guest policies and noise issues.

### *Staffing Challenges and Large Caseloads for Service Providers*

Staffing challenges and large caseloads affect all three phases of tenancy supports: housing locator services, transition services, and ongoing supports. Service provider organizations told us they experience significant turnover in staffing, making it difficult at times to maintain consistent relationships with both clients and property managers. As a result, property managers at times are unsure whom to contact when issues arise with PRA residents. Shifts in staffing also complicate handoffs between the phases of supports.

In some cases, one case manager or organization works with an individual throughout the process of locating housing, moving in, and remaining stably housed. More commonly, different agencies may assist in each phase. An individual case manager may deliver all services directly or may coordinate with additional providers who provide services to meet a resident's specific needs. Handoffs between tenancy support organizations sometimes leave gaps. For example, several days may elapse between a resident's final meeting with the transition services coordinator who moves them into a PRA unit and their first meeting with the case manager who will provide ongoing support. A new resident's needs for physical assistance, emotional support, or help with tenancy issues may be particularly high at this time of change. Case managers suggested that it would be helpful if they could spend more time with clients after they move into a PRA unit to help acclimate residents to their new homes and lifestyles.

## Strategies for Coordinating Tenancy Supports for PRA Residents

To assess how well tenancy supports are being coordinated for PRA residents, we interviewed service providers who work with PRA residents and property managers where PRA residents live. These respondents described approaches to coordinating tenancy supports and how they addressed challenges they have encountered.

### *Strong Lines of Communication Between Property Management and Service Providers*

Property managers stated that strong lines of communication between residents, case managers, and property managers are crucial for PRA residents to have successful tenancies. Strong relationships can identify issues early and more quickly eliminate barriers facing a resident. One property manager suggested that monthly check-in calls between the property management and case management help to foster these open lines of communication. Property owners and service providers also report that maintaining a central point of contact for each resident—for example, a caseworker or a family member—is important for addressing tenant issues and ensuring successful tenancy.

**Tenant releases of information have been an especially useful tool for tenancy support.** In all states, property owners report that PRA residents sign information release forms that allow them to provide information about themselves to third parties as consented to in the form. In Delaware, new tenants sign a resident services release form that allows property managers to refer tenants to a resident services coordinator if needed and allows the resident to check off exactly whom they want to be contacted and under which circumstances. In Maryland, tenants sign a release of information as a standard part of their application to live in a property and complete emergency contact forms that property managers keep in the resident's file in case it is needed.

The first few days in a new residence can be particularly challenging for people newly living in the community. **Property managers found that having service providers accompany tenants to milestone events, such as lease signing and move-in, facilitated a smooth transition.** Both service providers and property managers told us that the transition process for PRA residents has become smoother over time. They report that the process has improved as service providers and property managers became familiar with the program and built communications channels with one another.

*Leveraging Other Sources of Tenancy Supports*

In Minnesota, the PATH program conducts outreach to homeless individuals and works with them through the early stages of transition to housing. However, PATH is not designed to provide ongoing tenancy supports, and some formerly homeless individuals, particularly those with mental health conditions, struggled to remain housed. In response, Minnesota is using state funds to support transitions in resident support from PATH to a nonprofit organization that offers community-based mental health and substance use disorder services to adults with a history of serious mental illness.

Finally, **a few of the PRA properties in the study states employ a service coordinator to address residents' health and social service needs**. These services are available to all residents, not just PRA tenants. For example, several properties in Minnesota have a resident connections coordinator who provides referrals to social services agencies that assist residents with education, employment, and physical and mental health services and works directly with residents to provide tenancy supports. The property manager at a property in Maryland provides all new residents with a handbook that outlines guidelines for independent living, such as taking out the trash, cleaning one's apartment, and general guidelines on being a respectful neighbor.

## 9.5 Developing Effective and Sustainable PRA Partnerships

At the core of the PRA program is the partnership between the state housing agency and state health agency or agencies. The Melville Act that authorized PRA requires the state-level partnership as a condition of receiving PRA funding. The state housing agency receives the PRA grant funds and administers the PRA subsidies. The state health agency commits to providing services and, in most states, to identify and select target populations to be served by the PRA program. An Interagency Partnership Agreement describes how state housing and health agencies delineate grant responsibilities.

A goal of the PRA program is to encourage collaboration between state housing and state health and human service agencies that results in long-term strategies for providing supportive housing for people with disabilities in their states. Whether the PRA partnership is ultimately successful and sustainable depends on a number of factors. Factors that affect the PRA partnership include how well state partners communicate and collaborate and whether they have adequate and knowledgeable resources to staff and implement the program.

In this section we summarize input from PRA program staff at state housing and Medicaid agencies on how they work together to administer the PRA program and the success of their collaboration.

### How State Agencies Define Successful PRA Partnerships

**Most state housing and health agencies staff we interviewed spoke about collaborative partnerships built on mutual goals and respect.** These interviews revealed common themes of successful PRA partnerships. Staff spoke about building off of existing relationships, regular communication between agencies, sharing aggregate resident and program data, and collaborating on key areas of joint concern but relying on one another's expertise. State agency staff also recognized the value and contribution of dedicated staff and local partners.

*PRA Program Partnerships Continue To Benefit from Pre-Existing Relationships*

In four of the six study states, the partnership between the state health and the state housing agencies was a continuation of a longstanding relationship, with a shared commitment to supportive housing. In these states, the PRA program continues to benefit greatly from pre-existing state relationships and programs, particularly the MFP program and supportive housing programs. Program staff we interviewed from these states underscored the long-lasting effects of these relationships. In Maryland, a staff member noted that ***"It's a balanced partnership—I don't know if other states could say that but because of our long history and the trust that we have all been able to establish. We have established clear roles and everyone knows what the other people do—everyone plays their roles really well."***

Staff from state agencies without pre-existing relationships also noted the difference. ***"This program is nothing without its partnerships and it takes time and energy to develop those—especially for states that didn't have a pre-existing program."***

### *Relying Upon Each Other's Expertise in Health and Housing*

Helping residents obtain and maintain tenancy services and supports involves collaboration by all PRA program partners: the state health and housing agencies, service providers, and property managers. Staff from many of the state agencies and partners spoke about the importance of relying upon each other's expertise and knowledge in making successful programmatic decisions. As one PRA program staff member noted, ***"It's all about trusting the agency to do what they do well."***

State housing agencies note that state health agencies' input on where PRA units should be located is an example of successful collaboration. In all of the study states, although the state housing agency makes the final decision, the state health agencies have provided critical information on the needs of the target population, their current location, and availability of services in particular areas. This helps determine whether there will be enough demand for units in specific geographic locations and whether adequate services will be available for residents.

In Minnesota and Maryland, state health agencies specifically review property applications and have rejected some properties that the state housing agency selected because of lack of services or transportation in the area. In Louisiana and Washington, health agency staff used their existing relationships with owners to help identify units for PRA. State health agencies also played a role by providing input on unit sizes, accessibility, and amenities that will meet the needs of the PRA target population in their states.

### *Regular, Ongoing Communication Keeps Partners Up to Date on Program Progress*

Where the state housing and health agencies have longstanding relationships, PRA may be one part of a broader state initiative for affordable housing. In new partnerships, staff had to develop ways to collaborate and make decisions about the PRA program. State agency staff reported that it takes time and effort to develop a PRA partnership and effective ways to collaborate. Staff need to learn each other's language and determine which mechanisms for communication and making joint decisions work best for them. Successful communication strategies include standing meetings, ad hoc communication around lease-ups and resolving tenancy issues, and consistent points of contact between state health and housing agencies and between property owners and service providers.

Some PRA program partners reported gaps in communication among program partners. These can result when staff is stretched too thin to maintain frequent and regular communication, due to work on other housing and/or services programs and competing priorities for their time. These gaps can result in missed opportunities for applicants to obtain housing or delays in getting residents the tenancy supports they may need. To avoid such gaps, the PRA agencies in most of the study states have established standing meetings varying in frequency from weekly to monthly. Some of these are part of regular, standing meetings that discuss the PRA program among other programs. States also report more frequent communication around lease-ups and resolving tenancy issues. For example, in Maryland, the state housing agency hosts weekly meetings with property owners in the months leading up to initial leasing of the property.

State agency staff report that a central point of contact in each agency helps streamline communications. There can also be downsides to this approach, however, if the success of the program relies too much on one person's availability and knowledge. Some property owners also reported that having clear lines of communication open between them and the state agencies is particularly critical for questions or reporting tenant issues. Owners report that they did not necessarily understand when to contact the state housing agency and when to contact the state health agency for questions or concerns with the program or regarding specific tenant issues.

### *Sharing Program Data and Program Monitoring Between Partners*

In all of the study states, state housing and health agencies share property and aggregate resident data to monitor program progress and outcomes. In Louisiana, staff from both the state housing and state Medicaid agency have access to the waiting list system to review resident information and make updates. Agency staff in a few states specifically noted that they did not share individual applicant or resident data in order to protect the privacy of residents and noted the practices that they use to ensure applicant and resident data is always protected. Furthermore, most state agencies did not report collecting additional data on applicants, residents, or units beyond what is required for their tenant selection needs or for grant reporting to HUD. None of the state agency staff interviewed spoke of developing additional internal performance measures, although many noted that they were considering them as part of ongoing grant monitoring procedures.

## Sustaining PRA Partnerships

State agency staff spoke about factors that may affect sustaining and scaling up their PRA program partnerships.

A central theme was having adequate staffing and financial resources to implement the program. While state housing agencies report that the time they spend on the program has decreased somewhat, this is not the case for the state health agencies and other program partners. Grantees and their partners are concerned that they may not be able to maintain the level of commitment to the program going forward without adequate funding. Those that are committing their own financial resources to supplement administrative grant fees may not be able to do so indefinitely. Several state agency staff noted that, while they understood that it would require additional support and resources to get the program up and running, they had hoped the necessary level of effort would lessen over time. The staff was concerned about maintaining initial high levels of investment over the long haul.

Because staff turnover is a concern for the sustainability of the program, **state agencies have automated procedures as much as possible to reduce having to rely on the actions or knowledge of one person**. PRA is often administered by single individuals at state agencies with institutional knowledge or unique backgrounds that may not be easily replaced or transferred to new staff. Staff turnover has also been an issue for property management and service providers. High staff turnover means that agencies have to continually train and educate new staff on the requirements of PRA. State agency and partnering staff also need to continually develop new relationships and contacts.

To address this, the PRA partnerships in the study states have automated some tenant selection and eligibility procedures, as well as the notification of unit availability. Other states developed written training materials and procedural manuals so that new staff can work from detailed instructions. State agencies also report that cross-training staff helps to bridge the knowledge gap between program partners and facilitates easier staff transitions.

**Agencies that have successfully managed staff transitions have engaged multiple staff in certain functions or have cross-trained with other agencies.** For example in Delaware, the state housing agency developed training for service providers who refer applicants to the PRA program. The agency created a PRA training program for service providers and property managers that included fact sheets and how-to guides, a supportive housing website that listed state resources, information on fair housing, and the use of reasonable accommodation requests in appealing denials of eligibility.

**In addition, state health agencies and service providers in the study states are increasingly including staff with affordable-housing knowledge.** In Washington, the state housing agency benefits from the housing knowledge of the Regional Housing Coordinators, who help coordinate both services and housing placement. The coordinators have connections with property owners and have helped identify properties for PRA units and place tenants quickly. State-funded service provider organizations called Community Choice Guides also have knowledge of both available health resources and affordable housing resources. In Minnesota, the state health agency hired a PRA Coordinator with previous extensive experience in state and local housing agencies.

## Expanding Beyond the PRA Program Partnership

**State agencies reported that new collaborations serving people with disabilities have emerged as a result of participation in the PRA program.** The five state housing and health agencies that administer the PRA program in California did not previously work together but report that the partnership developed for PRA has led to other state-level collaborations. For example, state agency staff in California are assessing how Medicaid service dollars can flow more effectively into affordable housing projects. State housing agency staff also noted that, beyond PRA, there has been an overall effort between two of the state housing agencies to coordinate on similar housing efforts to avoid duplicating work, such as inspections for properties funded by both agencies.

Several service providers and property managers also spoke about developing relationships between their organizations that had not existed before PRA. Service providers who helped applicants move into PRA reported learning about new housing resources for their other clients, in addition to learning about overall local affordable housing resources. In turn, property managers report learning about community tenancy supports that may be helpful for some of their other residents.

In Louisiana, the state health and housing authorities report that they have started working closely with the Department of Corrections to figure out how to better serve people with disabilities who are re-entering the community from the state correctional system. ***"There is definitely a permanent supportive housing 69 population within the corrections system. Louisiana has the highest rate of incarceration in the world. We are all on board and we are trying to figure that out.***

[69] Permanent Supportive Housing (PSH) is a housing model that combines affordable housing and supportive services, with admission limited to people who formerly were homeless.

***The Section 811 program has made it easier to expand into other programs and identify new opportunities for us."***

In Maryland, state agencies have had a longstanding partnership, and report that they continue to find new ways of collaborating to serve people with disabilities. Like staff in Louisiana, staff at the state housing agency in Maryland also report replicating some of their partnership characteristics with other state agencies, and point to new collaborations with the Governor's Office of Crime Patrol and Prevention to provide assistance to victims of domestic violence.

## 9.6 Summary

Grantees' effective implementation of the PRA program requires successfully navigating and coordinating several processes. Eligible applicants and units must be identified and matched, and services must be adequate and aligned with needs and preferences. Multiple stakeholders must collaborate: state housing and health agencies, property owners, service providers, and potential tenants. The study found both structural challenges to successful PRA implementation, such as limited housing stock, staffing turnover, and low rents, and a variety of strategies that had been developed to address these challenges. Many of these evolved over time, as grantees applied lessons learned to refine their approaches. These include managing waiting lists, working with property owners on reasonable accommodations, and requesting waivers for higher contract rents than the grantees had initially established in their grant applications. We anticipate that grantees will continue to adapt their approaches as they gain more experience with the program. Some challenges, especially around cost and available services, are likely to persist nonetheless.

The ultimate goal of the PRA program is to create institutional knowledge and capacity within states to further expand the availability of permanent supportive housing for people with disabilities. At the core of this are sustainable partnerships between health and housing agencies that can bring together their respective resources and expertise. These partnerships grow over time, and many have their antecedents in the MFP program. The grantees we evaluated see their partnerships as successful and offer insight into strategies to form and deepen them. These include regular meetings and communication, recognizing and valuing the expertise of each partner, and automating or documenting key knowledge and functions so they are not lost when individual staff move on to new positions.

# Conclusion on the Overall Effectiveness of the PRA Program

This Final Report on the Evaluation of the Department of Housing and Urban Development's Section 811 Project Rental Assistance program assesses the effectiveness of PRA compared to other housing options for people with disabilities. The evaluation focused on PRA programs in six states that had early success in developing state-level PRA partnerships (California, Delaware, Louisiana, Maryland, Minnesota, and Washington). In this chapter, we review the PRA program's progress toward its goals and the evidence of its effectiveness in these six states. We discuss implications of the study's findings for the entire PRA program going forward and the opportunities for future research.

## 10.1 How Effective Have States Been in Meeting the Goals of the PRA Program?

Overall, the study found that the PRA program assists people who differ from other people with disabilities in HUD's housing programs. The areas of difference include demographic characteristics, healthcare conditions, the types and sizes of properties the people live in, and the characteristics of the neighborhoods where they live. In our survey of PRA and PRAC residents, we found that they report receiving HCBS at similar rates and rate the quality of their services similarly but that PRA residents rate the quality of their properties and their neighborhoods lower than PRAC residents.

In our analysis of Medicaid claims data for PRA residents about a year after they moved in, we found that PRA residents use healthcare services differently than members of all of the comparison groups being assisted by PRA. However, most of these differences were not statistically significant. The only statistically significant difference we found was the significantly lower rates of healthcare use by PRA residents relative to similar people not assisted by HUD programs.

The component of this study that assesses the cost-effectiveness of PRA in relation to other HUD programs that assist people with disabilities found that PRA rental subsidy costs are similar to or lower than for other HUD programs, but that program administrative costs are higher. The study found that costs for healthcare- and disability-related services were similar for PRA and PRAC residents, but dissimilar to such costs for residents in other HUD programs.

The PRA program was designed to respond to a number of policy priorities:

- Increase the supply of affordable housing for people with disabilities in a cost-effective way, while continuing to serve households with extremely low incomes.
- Provide affordable, community-based housing options for people who might otherwise be, or be at risk of becoming, homeless or unnecessarily institutionalized.
- Offer integrated housing settings where people with disabilities live in multifamily housing that assists people both with and without disabilities.
- Encourage collaboration between state housing and health agencies that results in long-term strategies for providing permanent, affordable housing options for people with disabilities, and providing coordinated access to services.

Here we review key results for each of these priorities.

### Increasing the Supply of Affordable Housing for People with Disabilities: *PRA grantees have secured units for the program, but at a slower pace than HUD had planned*

This study found that PRA grantees are securing units under agreement and housing eligible households but more slowly than had been planned. Nationally, 27 state housing agencies are administering PRA grant programs and expect to provide rental assistance for an estimated 6,000 households. By September 2018, roughly four years after the first PRA grantees had launched their programs, about three-quarters of planned PRA units were under agreement, and some 1,200 households had moved into units. In the six states in this study, grantees had contracts in place with owners for more than half of planned units and had identified properties for most of their awarded rental subsidies. In the study states, about three-quarters of planned units were under agreement and half units were occupied by PRA residents.

As described in the Phase I evaluation of PRA, two factors slowed the pace of leasing units. First, owner recruitment was challenging, because some eligible owners were reluctant to commit to long-term contracts, under a new and unfamiliar program, at rents at or under FMR. Second, on the household side, identifying eligible applicants and matching them with available and suitable units takes time

and administrative effort. Many local partners praised the program for providing opportunities for persons who wanted to live independently, but they also noted that not enough PRA units are available, which limits choices for applicants.

The pace of leasing seems to be picking up. At the same time, some PRA residents are expressing concern about the housing quality of their units, properties, and neighborhoods. This raises questions about the balance between pressures to lease units within the grant period and ensuring the housing meets PRA residents' needs and is in high-quality properties and neighborhoods. The study's cost-effectiveness analysis tentatively concludes that the PRA program is as cost-effective as the PRAC program but at a considerable administrative cost. Administrative costs may level off as the grantees gain more experience and develop a larger pipeline of available units. On the other hand, some grantees that set rents below FMR had trouble recruiting owners in higher-cost areas and received approval from HUD to increase rents. This will increase costs and reduce the number of households the fixed grant amount can assist.

### Expanding Housing Opportunities for People with Significant Healthcare and Service Needs: *The PRA program is housing its intended target populations*

PRA grantees succeeded in reaching eligible people who were living in institutions, homeless, or at risk of homelessness or institutional care. As of September 2018, grantees reported that more than a quarter (27 percent) of the 725 households assisted with PRA in the study states to date had previously lived in an institution, and about 20 percent had been homeless. About one-third of the remainder were at risk of institutionalization or homelessness. Healthcare utilization data confirm that the PRA program appears to serve a higher-need population relative to other HUD programs, with a higher prevalence of developmental, mental health, and other disabling conditions before entering the PRA program.

Grantees continue to report high rates of ineligibility, however. In particular, applicants experiencing homelessness often have poor credit or housing histories or have criminal backgrounds that make them ineligible for housing at particular properties. Grantees are working with owners and service providers to reduce barriers to property eligibility, and the denial rate is going down. Exits from the program are high in the study states, as about a fifth of PRA residents exit the program each year in the first three years after move-in. The study also found that PRA residents have higher rates of exits due to tenant nonpayment of rent than PRAC does. These findings point to the need for greater coordination between state agencies, property owners, and service providers to ensure PRA residents have the support they need immediately after move-in and going forward throughout their tenancy.

The PRA program's requirement that housing and health agencies formally collaborate helps state housing and health agencies engage with and learn from each other and effectively serve the high-needs populations the program hopes to reach. Grantees uniformly report that the administrative cost is considerable for them and for many of their partners. States with established structures for CMS's MFP program often had a head start on this collaboration, and most hope to continue to support the staffing and systems put in place for MFP after those grants end. This requires that states commit resources for doing so.

The study found that, once housed, PRA residents report for the most part that they receive the services they want and need. PRA residents surveyed report getting more pre-move and transition services to help them move to these settings than do their counterparts in PRAC properties. More than two-thirds of both PRA and PRAC residents report receiving some assistance in moving into their new home. However, the study identified some gaps in the coordination of services and in the types of transition and ongoing services available to residents. Less than half of surveyed PRA and PRAC residents reported receiving information on how to live on their own when moving into their unit. About one-fourth to one-third of residents surveyed reported going without a needed service at least sometimes. In addition, our interviews with state agency staff, property managers, and service providers highlighted some areas where services are unavailable or insufficient to meet all the needs of PRA residents.

Service needs and gaps vary by state and by target population and affect residents both before and after moving into a PRA property. Areas with gaps in services that service providers and property managers reported during our interviews include mental health support, medication management, employment search and readiness, mental health and substance use disorder treatment, and transportation.

### Expanding Housing Opportunities in Integrated Settings: *The evidence is mixed*

Grantees are securing units in properties that meet the 25 percent cap on set-asides for people with disabilities. In fact, the average percentage of PRA units per development is 10, well below the cap. Anecdotally, we

also heard that some potential PRA applicants would prefer to live in properties even smaller than the five-unit minimum that PRA requires. PRA residents also report high levels of autonomy and personal choice in some of their daily activities. Almost all PRA residents report being able to be alone when they want to be and to eat when they want. Not all PRA residents report being able to exercise their personal choices at all times, however. More than a quarter of PRA residents report not always being able to see their friends and family when they want to see them, significantly more than the 12 percent of PRAC residents who say the same. Additionally, a fifth of PRA residents said they have difficulty getting around their neighborhood, at least sometimes. Less than half of PRA residents report viewing more than one unit before moving into their current home.

We conclude that, at its current scale, the PRA program offers housing in properties where people with and without disabilities live, but residents may not always be satisfied with the specific units or neighborhoods that are available to them. With the possible exception of PRAC, all of the comparison programs offer options that, in theory, are in integrated settings. The comparison programs are also well established and have more units, and so may offer more choices just by virtue of their size relative to PRA. We learned that providers that offer transition services often screen for PRA eligibility while also signing people up for Housing Choice Vouchers and public housing waiting lists. Providers report anecdotally that many of their clients would eagerly accept a voucher that could be used anywhere owners accept them and may be receiving Medicaid-funded supportive services anyway.

As a practical matter, however, the alternative for many in the PRA's target populations is not necessarily a voucher program or public or other HUD-assisted multifamily housing. It is living in institutions or being served by the homeless assistance system (potentially with high use of costly crisis care and other services). Some states specifically target people they see as the hardest to serve and who might not be successful with a traditional housing voucher if the voucher has no connection to services. The PRA program's coordinated access to services could play a key role in successful tenancy. The evidence from our impact analyses points in that direction, but the follow-up period is too short to conclude definitively that that is the case.

**Building Institutional Capacity at the State Level: *PRA grantees established partnerships at the state and local levels, often building on existing relationships from previous supportive housing efforts, but at considerable administrative cost***

PRA partnerships are beneficial in many ways but can be time-consuming and resource-intensive. Even if the effort and administrative cost were to level off, grantees would still be concerned about securing resources to sustain program staffing. Staff turnover is a concern, as state-level staff in particular often have unique institutional knowledge of the program that is not easily replaced.

Grantees and state health agency staff are addressing this by cross-training staff within and across agencies, developing written manuals, and automating procedures to both increase program efficiency and mitigate the effects of turnover, but they report that more technical assistance is needed on how to integrate housing assistance and healthcare and supportive services. Topics for such assistance include guidance on procedures, on what is and is not permitted under the program, and on what program changes require HUD approval. Program staff also noted that some owners still have misconceptions about the PRA program and its target populations, suggesting a need for training on contracting and the administration of rental assistance payments and for education about the nature and needs of the target populations. Training on tenant selection and unit matching emerged as a specific training need for service providers.

## 10.2 Policy Implications and Areas for Future Research

The results of our evaluation have several policy implications for HUD and HHS to consider, and several areas for possible future research.

### Program Monitoring and Data Sharing

The Phase II evaluation provides evidence on short-term outcomes for residents who have been receiving PRA assistance for about a year on average. Further, the study had access to data for only about 10 percent of the households that states expect to assist nationally. We recommend that HUD continue to monitor outcomes for PRA residents over time and for all of the 27 states that received PRA grants in FY12 and FY13.

Among the six study states, only one (Washington) had a formal agreement between the housing and health agencies to share data. In the remaining states, the

agencies work together to complete required quarterly progress reports to HUD but do not share person-level data. State housing agencies should consider pursuing opportunities with their partnering agencies to share data to assess outcomes for their state's PRA residents and potentially to compare them to outcomes for other similar populations in the state. These populations could include people served by other supportive housing programs in the state or people served under specific Medicaid waivers. Such agreements should include policies and practices to protect people's privacy. Similarly, we encourage HUD and CMS to pursue similar opportunities to share data at the national level to better understand the populations they assist and to evaluate joint initiatives.

With respect to monitoring PRA implementation, several of the grantees we spoke with noted that quarterly reporting requirements for PRA can be burdensome and that the state agencies have difficulty collecting and calculating their data in the manner requested by HUD. Further, it is not clear to grantees whether the frequent reporting and the level of detail requested are necessary for monitoring PRA's progress, given the expected long-term nature of the program. HUD should consider streamlining reporting requirements for grantees and should seek grantees' input on specific areas where data is challenging to collect or to report in the manner requested.

In order to streamline data collection for the quarterly report, grantees suggest that HUD request only the data they need for monitoring or reporting purposes and not request data that can be obtained from other HUD sources or are submitted to HUD in a different manner. Specific questions that grantees and their state agency partners reported as challenging to answer were those that asked about applicants' prior living situation or applicants' or residents' type of disabling condition, since this information was not always reported or easily obtained. Grantees also reported that some confusion resulted from the fact that some questions were point-in-time, cumulative counts and others were quarter-only counts. They suggest being consistent on this throughout the report. HUD may also want to consider reducing the frequency of reports to semiannual or annual.

### Greater Flexibility in Identifying PRA Units That Meet Resident Needs and Preferences

PRA residents have diverse needs and differing preferences for properties and neighborhoods. Unlike in the tenant-based programs such as HCV and NED, applicants for property-based rental assistance programs are limited in the number of choices they have in where they can live affordably.

While state housing agencies have flexibility in selecting properties and locations where they can use PRA, they are also constrained by some of the PRA program's requirements for integration, and for the specific types of units that PRA target populations typically need (mostly one-bedrooms, and in some cases, accessible or ground-floor units). Most PRA residents live in properties financed by LIHTC. As a result, each state's LIHTC requirements and incentives affect the types of properties and neighborhoods where PRA can be used. These locations and properties may not always align with the needs and preferences of the state's PRA target population.

It is difficult to identify studio or one-bedroom units for PRA in properties that are funded by tax credits or other federal or state subsidies. Some developers may restrict the number of smaller-sized units in affordable housing developments because they bring in less average rent than units with more bedrooms. The studios and one-bedrooms they do construct are often in response to capital subsidy financing incentives for setting aside a minimum number of units for seniors or for people with disabilities, and these incentives may be inconsistent with the PRA program's 25 percent cap on set-asides for people with disabilities.

In some cases, these constraints have led grantees to contract for PRA units in older properties that some PRA residents rate as having poor quality or that have unit sizes or accessibility features that do not necessarily match what applicants need. While properties still need to meet federal standards for safe, sanitary, and decent housing, we learned from staff interviews and from surveys with PRA residents that some units are in older properties with persistent maintenance needs or in geographic areas and neighborhoods where residents may not necessarily want to live.

Grantees are required to inspect PRA properties at least every three years and make inspection results available as part of regular monitoring reviews. To improve the quality of PRA units under contract, HUD could require that properties be inspected according to UPCS standards before units are placed under contract for PRA, and that individual units are inspected before they can be leased by PRA residents. Although grantees in most of the study states conduct inspections of PRA units more frequently than every three years, HUD could make this a requirement. HUD could request inspections information as part of regular grant progress reports (for example, require grantees to report when a unit fails inspection), through resident surveys, or through random audits of properties outside of their regular monitoring review.

State agency and partner staff we spoke with suggested areas for greater flexibility in where and how PRA can be used. Their recommendations include:

- HUD should continue to consider waivers for grantees to increase the maximum allowable rent for PRA-assisted units above the level established in their Cooperative Agreements, especially in high-cost areas. This will allow grantees to provide more PRA options in high-cost areas close to services and transportation and to improve the likelihood that owners will want to administer the PRA program in their properties. A downside to this approach is that as average subsidies increase, grantees will serve fewer households with their PRA grant funds.
- In states where studios or one-bedroom units are particularly hard to place under contract for PRA, HUD should consider waivers to allow households that qualify for one-bedroom units to occupy and receive subsidies for two-bedroom units.
- HUD should encourage state housing agencies to place more units under contract with owners than are estimated in Cooperative Agreements between grantees and HUD. In addition to providing applicants more choices in property type and neighborhood, this will allow grantees to better manage uncertainties in resident turnover in existing properties and potential delays in development schedules for new construction properties.
- HUD should provide additional guidance to grantees on how they can pursue using PRA in more scattered-site properties. HUD should allow greater flexibility in the types of properties where PRA can be used. We heard anecdotally that PRA applicants may prefer to live in smaller properties, including those with less than the minimum five units required for the PRA program. Placing more PRA units in scattered-site housing may help grantees address this preference. Although the PRA statute allows PRA to be used in "scattered sites" where units for one contract are in more than one property or location, only a small percentage of PRA residents are assisted in these types of properties.
- HUD could consider creating incentives in future PRA funding rounds for grantees to locate PRA properties in low poverty areas, areas with more racial integration, or other indicators of opportunity.

### Sustaining and Expanding the PRA Partnerships

Whether the PRA program is sustainable and ultimately successful depends in part on whether state agencies and their partners have adequate staffing and financial resources to maintain the level of PRA staffing needed to successfully implement PRA over the length of the PRA grant and the 20-year contract period. Grantees are finding ways to mitigate the consequences of relying on a few people with institutional knowledge to manage the PRA program, and also the consequences of staff turnover, which is particularly high for case managers who work with PRA residents and for property managers. HUD and CMS should continue to support the efforts of grantees and their state and local partners by providing technical assistance, tools, and templates that agencies can modify for their own use.

While many state agency staff spoke favorably of the assistance provided by HUD and their technical assistance contractor, property owners and service providers do not have access to this guidance and training. HUD may want to consider expanding their technical assistance to property owners and service providers or providing additional support to grantees to provide this assistance to their partners. Areas where owners report needing additional information or training include the rental assistance contracting process, entering tenant data for payment, tenant eligibility including calculation of income and rent, and use of reasonable accommodation requests.

Owners also noted that they would like additional guidance from the state partnerships about the potential needs of the state's target population and clear guidance on how to prioritize one applicant over another and on how to put written tenant support plans into practice. Service providers report wanting additional guidance on PRA eligibility requirements, requesting reasonable accommodation requests for their clients, and on other affordable housing options in their communities.

Another anticipated impact of the PRA program was to promote effective use of healthcare services. Housing is considered an important social determinant of health, and stable housing can contribute to improved health status and self-care, as well as reducing a person's incidence of unplanned and emergency care. Furthermore, community-based supports, such as PCA, are generally preferred by people with disabilities and can be less costly on average than institutional care. The short observation period for PRA-supported residency limits our ability to observe definitive policy implications in the area of healthcare impacts. We did observe some differences in service utilization over the short term that could translate into long-term trends. This may hinge on continued funding through Medicaid or other sources of the full complement of community supports, including tenancy services.

## Is PRA an Effective Approach?

The Phase II evaluation assessed whether PRA had achieved its goals for integration, cost-effectiveness, and coordinated access to services for residents, and whether PRA is an effective alternative to the PRAC, NED, or other HUD programs that also provide housing assistance to non-elderly people with disabilities. Overall, PRA and PRAC residents rate their properties and home and community-based services similarly. The study found significantly lower rates of use of long-term inpatient care services and higher use of case management services for PRA residents compared to similar people enrolled in Medicaid and those not served by HUD programs. While some of the early findings on neighborhoods and resident-reported health status suggest that PRA residents may be worse off than they would be if assisted by PRAC or other HUD programs, these findings represent outcomes from only a subset of the PRA residents assisted nationally and a fraction of the residents whom PRA will eventually serve, and these findings are for people with about a year of PRA assistance on average.

The scale of the PRA program is still modest compared to among other HUD programs that assist non-elderly people with disabilities. The PRAC program has about 34,000 units for non-elderly people with disabilities, and the NED program assists roughly 55,000 households. In addition, for the first time since 2005, in 2018 HUD awarded $98 million in subsidies to 286 PHAs to expand the Mainstream Voucher program, a tenant-based voucher program for people with disabilities.[70] Another large funding competition for these vouchers was announced in 2019. While this was not a requirement, HUD encouraged PHAs to target these vouchers to non-elderly people with disabilities who are transitioning from institutions or homelessness or are at risk. The 2018 and 2019 funding notices also encouraged PHAs to partner with state Medicaid agencies or other entities that could provide resources for services. These tenant-based vouchers will further expand housing choices for people with disabilities, perhaps with more flexibility and with less administrative burden than is the case with the project-based PRA program. HUD should continue to monitor the results of the PRA program relative to the range of other options.

## Areas for Future Research

This evaluation assessed early outcomes of PRA residents relative to similar individuals in four comparison groups. As noted throughout this report, the study had several limitations related to the timing of the study, the availability of various data sources, and the small number of PRA residents in our sample compared to the total number of households that all 27 PRA grantees expect to assist with their FY12 and FY13 grants. As such, the study team identified several areas for future research:

- HUD may want to expand the research of the PRA program to all states where the PRA program is being implemented. Using HUD administrative data, HUD can analyze and compare household, property, and neighborhood characteristics for a larger sample of PRA residents, and assess how applicable the study's results are to the entire PRA program. Alternatively, HUD could use the administrative data already collected for this study to generalize a subset of findings for the national PRA population. This analysis would only include HUD and neighborhood administrative data for households and properties and not healthcare data due to the data use restrictions of the study.
- HUD administrative data does not provide complete information on reasons for program exits. HUD may want to consider adding additional elements to regular grantee progress reports to learn more about why residents leave PRA units, whether they are for tenant-initiated or owner-initiated reasons, and whether there are differences in characteristics of residents who remain in the PRA program versus those who exit.
- Future evaluations of the Section 811 PRA program should look at longer-term outcomes after the program has had time to mature and after enough time has passed to more accurately assess the effect of the PRA on residents.
  - The study team recommends revisiting the status of PRA grant implementation presented in this report in another two years. A potential milestone for follow up could be when all PRA units that are funded in the first two funding rounds are expected to be under contract with owners: September 2020 for FY12 grantees and September 2021 for FY13 grantees.
  - The timeline for revisiting healthcare utilization data needs to consider the minimum 18-month lag for Medicare and Medicaid claims data. A three or more year post-occupancy period would be ideal for finding stronger evidence of changes in patterns of healthcare utilization and spending.
  - Given a substantive portion of PRA residents are likely to be dual enrolled in Medicare and Medicaid it would be important for a future evaluation to collect Medicare and Medicaid administrative data covering

[70] https://www.hud.gov/program_offices/public_indian_housing/programs/hcv/mainstream

the full pre/post periods in order to accurately measure healthcare utilization and spending.

- This evaluation compared outcomes of the PRA program to outcomes for PRAC, NED, and other HUD-assisted housing programs. Given that PRA residents were found to have different demographic and socioeconomic characteristics and to have higher rates of chronic and disabling conditions, HUD may want to consider whether these comparison groups are the right ones. Future impact studies could compare outcomes between other groups of individuals similar to those assisted by PRA, such as people experiencing homelessness, people residing in institutional facilities, and people living in the community and receiving services under HCBS waivers.
- HUD should explore further how the 25 percent cap on set-asides for people with disabilities may limit the number of properties where PRA can be offered. In some states, the cap is inconsistent with incentives set by state tax credit programs or other funding sources. While properties may not have specific set-asides for people with disabilities that exceed PRA's requirements, it is likely that some percentage of people living in the non-PRA units include someone with a disability in the household.
- The study reviewed capital financing data for a limited sample of PRAC properties. Through analysis of existing administrative data, HUD may want to consider expanding this sample in the six study states or in all states with PRA programs.
- HUD may wish to collect more nuanced data on why units under contract for PRA are unavailable for PRA. HUD could request that grantees report the reasons for unavailable units in their grant progress reports, or HUD could obtain qualitative information from grantees during ongoing technical assistance webinars. HUD may also wish to develop monitoring tools to help HUD and grantees monitor the average time it takes units under contract to be leased and average vacancy rates in units under contract for PRA.
- Any future research on the PRA program should continue to take into consideration the perspective of the people who the program assists – the residents. HUD may want to expand the implementation of the Section 811 resident survey to residents in all grantee states or make it available for grantees to administer in their own states. HUD could also consider developing a hotline for residents so that they can report any questions or concerns they have with their property or neighborhood.

# Appendix A: Status of National PRA Program Implementation as of September 2018

This appendix summarizes the implementation status of 27 Section 811 Project Rental Assistance (PRA) programs through September 2018. The appendix is based on data from Section 811 PRA Program Quarterly Reports and administrative data on tenants and properties from HUD's Tenant Rental Assistance Certification System (TRACS) and Integrated Real Estate Management System (iREMS).

The appendix provides an overview of the status of the first two PRA grant funding rounds. We present an update on grantees' efforts to establish contracts with owners for PRA rental subsidies, and data on units occupied by PRA residents as of September 30, 2018. The appendix presents information on the number of bedrooms and accessibility of units under contract and occupied by PRA residents. Finally, the appendix presents aggregate data on applicants to the PRA program, including eligibility determination and referral sources, and limited characteristics of households who have moved into PRA units.

## A.1 Overview of Section 811 PRA Grant Awards

Congress approved funding for two rounds of HUD grants for the Section 811 PRA program. HUD awarded a demonstration round of grants for Fiscal Year 2012 (FY12) in February 2013, and a second round of grants for Fiscal Years 2013 and 2014 in March 2015 (FY13). Across the two funding rounds, HUD awarded funding to 30 state housing agencies: 13 in FY12 and 25 in FY13 (eight states received funding in both rounds). Three grantees left the program: North Carolina (FY12), the District of Columbia (FY13), and Kentucky (FY13). This section provides an overview of the 27 ongoing PRA grant awards.

Grantees entered into Cooperative Agreements with HUD to establish targets for the number of units expected to be assisted by the PRA grants and to govern other activities under the grants. Each grant funds a maximum of 60 months of rental assistance per unit. Grantees can use up to 8 percent of their grant awards toward administrative costs. As state grantees have implemented their PRA programs, some worked with HUD to update their Cooperative Agreements with changes in the number of units they anticipate funding based on changes to planned PRA property locations and the cost of rental units in those locations. Some states have also received minor changes in funding.

On average, HUD awarded $7.2 million per FY12 grantee and $6.2 million per FY13 grantee. Funding amounts and the number of units that grantees expect to assist with their grants vary widely:

- Across the two funding rounds, the grant amounts ranged from $2 million to $24 million.
- Five states expect to provide PRA subsidies for fewer than 100 rental units. At the higher end of the range, Illinois and Georgia both expect to provide PRA subsidies for more than 500 units over the 2 funding years.
- FY12 grantees expect their grants to fund an average of 190 units per state, whereas FY13 grantees expect their grants to fund an average of 169 units.

As of September 2018, 27 grantees had entered into Cooperative Agreements with HUD for $88 million in FY12 grant funds for an estimated 2,283 units, and $142 million in FY13 grant funds for an estimated 3,772 units. Between the 2 grant years, PRA funding is expected to provide rental subsidies for an estimated 6,055 units. Exhibit A.1 shows each state's PRA grant amount and the estimated number of units the grantee expects its PRA subsidy to fund per its Cooperative Agreement.

Exhibit A.1: FY12 and FY13 PRA Grant Funding Awards and Planned PRA Units

| | FY12 | | FY13 | |
|---|---|---|---|---|
| State | Grant Amount | Planned Units | Grant Amount | Planned Units |
| Alaska | - | - | $7,722,343 | 160 |
| Arizona | - | - | $2,950,000 | 54 |
| California | $12,208,558 | 233 | $11,985,436 | 200 |
| Colorado | - | - | $7,610,719 | 157 |
| Connecticut | - | - | $4,112,906 | 150 |
| Delaware | $5,100,753 | 148 | - | - |
| Georgia | $4,279,650 | 233 | $10,174,407 | 350 |
| Illinois | $12,324,352 | 369 | $6,420,000 | 200 |
| Louisiana | $8,489,928 | 199 | - | - |
| Massachusetts | $5,427,208 | 90 | $6,803,050 | 107 |
| Maryland | $11,229,308 | 150 | $9,808,054 | 150 |
| Maine | - | - | $2,000,000 | 59 |
| Michigan | - | - | $5,516,950 | 174 |
| Minnesota | $3,085,500 | 85 | $3,000,000 | 75 |
| Montana | $2,057,000 | 81 | - | - |
| New Hampshire | - | - | $8,634,824 | 191 |
| New Jersey | - | - | $5,099,229 | 206 |
| New Mexico | - | - | $2,278,447 | 50 |
| Nevada | - | - | $2,000,000 | 44 |
| Ohio | - | - | $11,991,399 | 485 |
| Oregon | - | - | $2,335,000 | 75 |
| Pennsylvania | $5,870,880 | 200 | $8,557,014 | 205 |
| Rhode Island | - | - | $5,627,829 | 150 |
| South Dakota | - | - | $2,797,972 | 135 |
| Texas | $12,342,000 | 362 | $12,000,000 | 293 |
| Washington | $5,739,717 | 133 | - | - |
| Wisconsin | - | - | $2,532,090 | 102 |
| **Total** | **$88,300,377** | **2,283** | **$141,957,669** | **3,772** |

**Source: Abt Associates analysis of Section 811 PRA Quarterly Reports for quarter ending September 2018.**

## A.2 Status of Units under Agreement for the PRA Program

This section provides information on PRA units that are under contract or otherwise committed by owners as of September 2018. Grantees select properties to receive PRA subsidies through a Notice of Funding Availability (NOFA) or through their state's Low Income Housing Tax Credit (LIHTC) program or other capital funding mechanism. Grantees award units both to existing developments already constructed and operating as affordable rental housing and to developments under construction (or substantial rehabilitation) or planned to be developed.

In order to move residents into the selected properties, a grantee must first reach an agreement with property owners that they will lease units to residents. Rental Assistance Contracts (RACs) are 20-year agreements between the grantee and the owner of the eligible multifamily property. The agreement identifies the number of units the property owner agrees to commit to the program, the bedroom sizes of the units, and the

maximum allowable rent the owner may charge for a unit by bedroom size. Owners must also agree to a 30-year affordability restriction.

Both FY12 and FY13 grants have a deadline for disbursement of rental assistance funds. FY12 grants must be disbursed by September 30, 2025, and FY13 grants must be disbursed by September 30, 2026. After that time, the funds are canceled. The grant provides five years of rental assistance. If owners want to benefit from the full 5 years of rental assistance before the funds expire, leasing must start by September 30, 2020, for FY12 grants and by September 30, 2021, for FY13 grants.

## Status of Rental Assistance Contracts between Grantees and Owners

By September 2018, FY12 grantees had executed 210 RACs with property owners for an estimated 1,718 PRA units, representing 75 percent of units in grantees' Cooperative Agreements (Exhibit A.2). The average number of units per executed RAC for FY12 grantees is eight, with a range between five and thirteen. Massachusetts had the lowest average number of units per RAC at 2.8 (9 RACs for 25 units total), and Montana had the highest average number of units per RAC, with 12.5 (6 RACs for 75 units).

Exhibit A.2: RACs Executed with FY12 Grantees through September 2018, by State

| State | # of RACs Executed | # of PRA Units in Executed RACs | Average # of PRA Units per RAC | # of PRA Units in Cooperative Agreement | % Units under RAC |
|---|---|---|---|---|---|
| California | 11 | 128 | 11.6 | 233 | 55% |
| Delaware | 22 | 115 | 5.2 | 148 | 78% |
| Georgia | 23 | 208 | 9.0 | 233 | 89% |
| Illinois | 18 | 164 | 9.1 | 369 | 44% |
| Louisiana | 21 | 255 | 12.1 | 199 | 128% |
| Massachusetts | 9 | 25 | 2.8 | 90 | 28% |
| Maryland | 8 | 73 | 9.1 | 150 | 49% |
| Minnesota | 9 | 84 | 9.3 | 85 | 99% |
| Montana | 6 | 75 | 12.5 | 81 | 93% |
| Pennsylvania | 41 | 202 | 4.9 | 200 | 101% |
| Texas | 27 | 302 | 11.2 | 362 | 83% |
| Washington | 15 | 87 | 58.0 | 133 | 65% |
| **Total** | **210** | **1,718** | **8.2** | **2,283** | **75%** |

**Source: Abt Associates analysis of Section 811 PRA Quarterly Reports for quarter ending September 2018.**

FY13 grantees executed 118 RACs for an estimated 516 PRA units, or 14 percent of their planned PRA units (Exhibit A.3). Eighteen of the 23 grantees awarded in FY13 had units under RAC. Of the remaining five FY13 grantees without any RACs executed as of September 2018, three (California, Illinois, and Massachusetts) were also awarded FY12 grant funds and had units under RAC for FY12. FY13 grantees entered into RACs with owners for an average of 4.3 units per RAC, about one-half of the average number of units per RAC for FY12 grantees. The average number of units per RAC ranged from 2.3 in New Hampshire (36 RACS for 81 units) to 28 in Wisconsin (2 RACS for 57 units).

Exhibit A.3: Contracts Executed with FY13 Grantees through September 2018, by State

| State | # of RACs Executed | # of PRA Units in Executed RACs | Average # of PRA Units per RAC | # of PRA Units in Cooperative Agreement | % Cooperative Agreement Units under RAC |
|---|---|---|---|---|---|
| Alaska | 1 | 5 | 5.0 | 160 | 3% |
| Arizona | 7 | 41 | 5.9 | 54 | 76% |
| California | 0 | 0 | NA | 200 | 0% |
| Colorado | 1 | 20 | 20.0 | 157 | 13% |
| Connecticut | 3 | 31 | 10.3 | 150 | 21% |
| Georgia | 6 | 36 | 6.0 | 350 | 10% |
| Illinois | 0 | 0 | NA | 200 | 0% |
| Massachusetts | 0 | 0 | NA | 107 | 0% |
| Maryland | 2 | 8 | 4.0 | 150 | 5% |
| Maine | 1 | 4 | 4.0 | 59 | 7% |
| Michigan | 2 | 12 | 6.0 | 174 | 7% |
| Minnesota | 5 | 28 | 5.6 | 75 | 37% |
| New Hampshire | 36 | 81 | 2.3 | 191 | 42% |
| New Jersey | 26 | 69 | 2.7 | 206 | 33% |
| New Mexico | 0 | 0 | NA | 50 | 0% |
| Nevada | 0 | 0 | NA | 44 | 0% |
| Ohio | 4 | 14 | 3.5 | 485 | 3% |
| Oregon | 3 | 8 | 2.7 | 75 | 11% |
| Pennsylvania | 9 | 43 | 4.8 | 205 | 21% |
| Rhode Island | 5 | 19 | 3.8 | 150 | 13% |
| South Dakota | 2 | 16 | 8.0 | 135 | 12% |
| Texas | 4 | 24 | 6.0 | 293 | 8% |
| Wisconsin | 2 | 57 | 28.3 | 102 | 56% |
| **Total** | **119** | **516** | **4.3** | **3,772** | **14%** |

**Source: Abt Associates analysis of Section 811 PRA Quarterly Reports for quarter ending September 2018.**

## Status of Other Agreements with Owners for PRA Units

Prior to executing an RAC, grantees and property owners can also sign Agreements to Enter into RAC (ARACs) or other written agreements that indicate a firm commitment to eventually enter into an RAC for an assisted unit. Other written agreements can include memorandums of understanding (signed by the grantee and the owner); LIHTC or other funding award letter signed by the funder (which may or may not be the grantee); or a letter of agreement or commitment signed solely by the grantee. Many state grantees signed ARACs or other agreements with property owners constructing new properties after being awarded PRA subsidies through the state's LIHTC program or through other multifamily housing funding programs.

Grantees expect owners who enter into ARACs to eventually enter into RACs once the initial leasing date is near; however, ARACs do not contractually bind owners to make units available to the PRA program. Although ARACs are supposed to represent firm commitments by the owner, the number of units under ARACs reported by the grantee might not always reflect units that will later be funded.

Exhibit A.4 presents the status of FY12 grantees' entering into ARACs or other agreements with owners through September 2018. FY12 grantees entered into 127 ARACs or other agreements for a total of 1,238 units, an average of 9.7 units per ARAC. Combining units under RAC (1,718 units) and units under ARAC (1,238 units), FY12 grantees identified 2,956 units, or 129 percent of the PRA units in their Cooperative Agreements.

### Exhibit A.4: Status of ARACs with FY12 Grantees through September 2018, by State

| State | # of ARACs Executed | # of Units in ARACs | Average # of Units per ARAC | PRA 5-Year Unit Goal | % Units under ARAC | # of RAC and ARAC Units | % of PRA Unit Goal Identified |
|---|---|---|---|---|---|---|---|
| California | 8 | 96 | 12.0 | 233 | 41% | 224 | 96% |
| Delaware | 1 | 6 | 6.0 | 148 | 4% | 121 | 82% |
| Georgia | 0 | 0 | NA | 233 | 0% | 208 | 89% |
| Illinois | 1 | 10 | 10.0 | 369 | 3% | 174 | 47% |
| Louisiana | 0 | 0 | NA | 199 | 0% | 255 | 128% |
| Massachusetts | 9 | 29 | 3.2 | 90 | 32% | 54 | 60% |
| Maryland | 11 | 100 | 9.1 | 150 | 67% | 173 | 115% |
| Minnesota | 0 | 0 | NA | 85 | 0% | 84 | 99% |
| Montana | 1 | 2 | 2.0 | 81 | 2% | 77 | 95% |
| Pennsylvania | 1 | 3 | 3.0 | 200 | 2% | 205 | 103% |
| Texas | 90 | 946 | 10.5 | 362 | 261% | 1,248 | 345% |
| Washington | 5 | 46 | 9.2 | 133 | 35% | 133 | 100% |
| **Total** | **127** | **1,238** | **9.7** | **2,283** | **54%** | **2,956** | **129%** |

**NA = not applicable.**

**Source: Abt Associates analysis of Section 811 PRA Quarterly Reports for quarter ending September 2018.**

As shown in Exhibit A.5, FY13 grantees have entered into 118 ARACs for 746 units as of September 2018. The average number of units per ARAC for FY13 grantees is 6.3, nearly double the average of 3.7 units per RAC for FY13 grantees. When the number of units under RAC and ARAC are combined, FY13 grantees had identified 1,262 units, or about 33 percent of their Cooperative Agreement units.

### Exhibit A.5: Status of ARACs with FY13 Grantees through September 2018, by State

| State | # of ARACs Executed | # of Units in ARACs | Average # of Units per ARAC | PRA 5-Year Unit Goal | % Units under ARAC | # of RAC and ARAC Units | % of PRA Unit Goal Identified |
|---|---|---|---|---|---|---|---|
| Alaska | 0 | 0 | NA | 160 | 0% | 5 | 3% |
| Arizona | 0 | 0 | NA | 54 | 0% | 41 | 76% |
| California | 3 | 33 | 11.0 | 200 | 17% | 33 | 17% |
| Colorado | 5 | 66 | 13.2 | 157 | 42% | 86 | 55% |
| Connecticut | 2 | 16 | 8.0 | 150 | 11% | 47 | 31% |
| Georgia | 0 | 0 | NA | 350 | 0% | 36 | 10% |
| Illinois | 0 | 0 | NA | 200 | 0% | 0 | 0% |
| Massachusetts | 0 | 0 | NA | 107 | 0% | 0 | 0% |
| Maryland | 20 | 121 | 6.1 | 150 | 13% | 129 | 86% |
| Maine | 2 | 6 | 3.0 | 59 | 10% | 10 | 17% |
| Michigan | 9 | 83 | 9.2 | 174 | 48% | 95 | 55% |
| Minnesota | 12 | 50 | 4.2 | 75 | 67% | 78 | 104% |
| New Hampshire | 7 | 28 | 4.0 | 191 | 15% | 109 | 57% |
| New Jersey | 3 | 12 | 4.0 | 206 | 6% | 81 | 39% |
| New Mexico | 0 | 0 | NA | 50 | 0% | 0 | 0% |
| Nevada | 0 | 0 | NA | 44 | 0% | 0 | 0% |

(cont)

Exhibit A.5: Status of ARACs with FY13 Grantees through September 2018, by State (cont)

| State | # of ARACs Executed | # of Units in ARACs | Average # of Units per ARAC | PRA 5-Year Unit Goal | % Units under ARAC | # of RAC and ARAC Units | % of PRA Unit Goal Identified |
|---|---|---|---|---|---|---|---|
| Ohio | 50 | 300 | 6.0 | 485 | 62% | 314 | 65% |
| Oregon | 0 | 0 | NA | 75 | 0% | 8 | 11% |
| Pennsylvania | 1 | 3 | 3.0 | 205 | 1% | 46 | 22% |
| Rhode Island | 0 | 0 | NA | 150 | 0% | 19 | 13% |
| South Dakota | 4 | 28 | 7.0 | 135 | 21% | 44 | 33% |
| Texas | 0 | 0 | NA | 293 | 0% | 24 | 8% |
| Wisconsin | 0 | 0 | NA | 102 | 0% | 57 | 56% |
| **Total** | **118** | **746** | **6.3** | **3,772** | **20%** | **1,262** | **33%** |

**NA = not applicable.**

**Source: Abt Associates analysis of Section 811 PRA Quarterly Reports for quarter ending September 2018.**

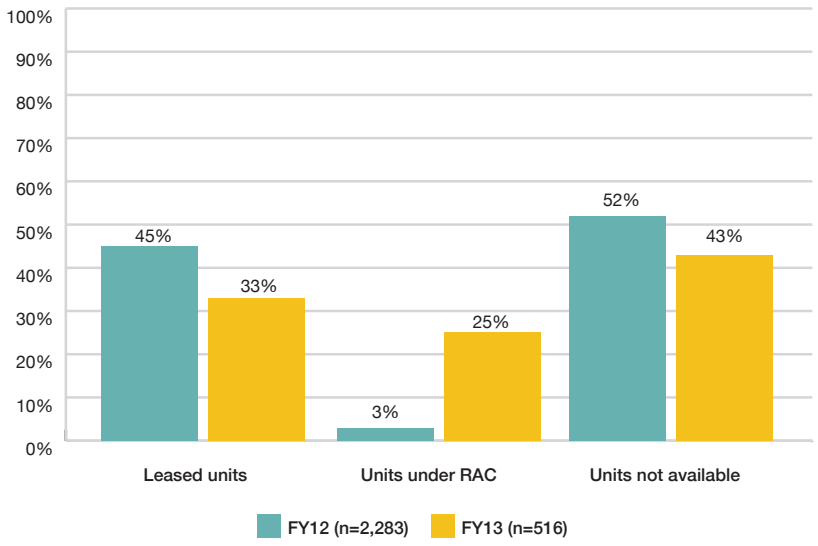
## Occupancy Status of Units under RAC

The RAC identifies the total number of units that an owner agrees to commit to the PRA program, but not all units are vacant and immediately available for a PRA resident when the RAC is executed. Units in existing properties that are already operating as affordable housing are typically available for PRA residents upon resident turnover, which can vary considerably among properties. All PRA units under RAC in new construction properties typically become available for lease when the building comes online.

For units under RAC, we distinguish between occupied units, vacant units, and units that are not available. Units could be not available for PRA residents because they are being leased to other, non-PRA residents, or because the units are still under construction. HUD advises grantees to execute RACs with owners within 6 months of the expected lease dates.

Exhibit A.6 shows the occupancy and availability status of the 2,799 units under RAC as of September 2018 (2,283 units for FY12 grantees and 516 for FY13 grantees). Of units under RAC, close to half were not available in FY12 (52 percent) and FY13 (43 percent). As of September 2018, some 45 percent of FY12 units under RAC and 33 percent of FY13 units under RAC were occupied by PRA residents.

Exhibit A.6: Occupancy Status of Units under RAC as of September 2018, by Grant Year




**Source: Abt Associates analysis of Section 811 PRA Quarterly Reports for quarter ending September 2018.**

About 3 percent of FY12 units and 16 percent of FY13 units were vacant as of September 2018. Units may be vacant for several reasons. The PRA units under RAC may not match applicant preferences for locations, specific properties, unit size, or accessibility features. In addition, units reported as vacant in one quarter might have PRA residents moving into them in the following quarter.[71] Owners also might be holding units vacant specifically for the PRA program.[72]

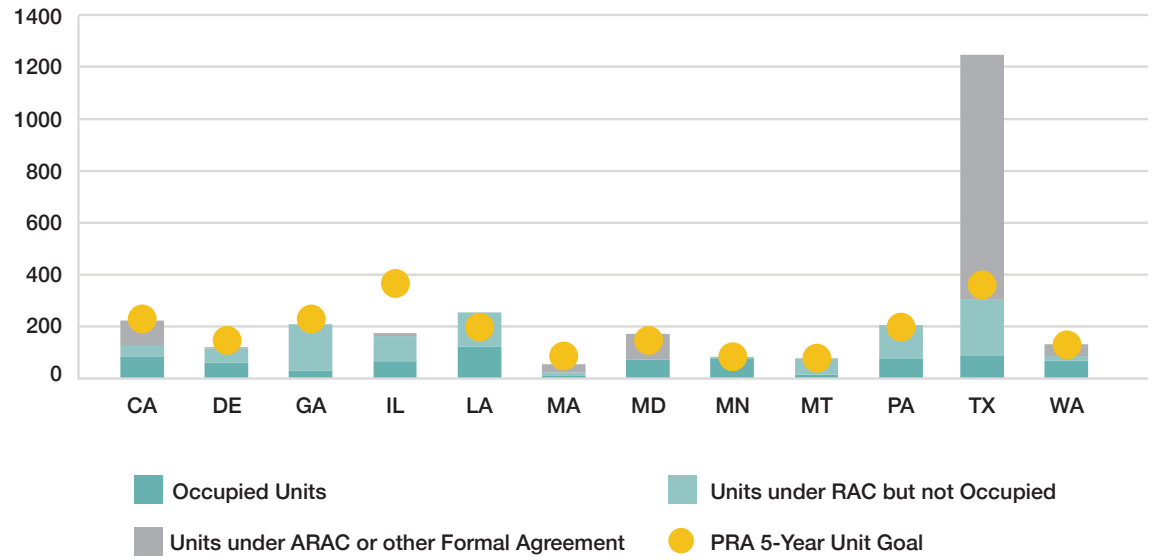
## A.3 Status of PRA Grants by State and by Grant Year

This section presents the implementation status of the 2 PRA funding years by state, represented by the number of units under executed RACs, the number of units under ARACs and other agreements with owners, and the number of units occupied by PRA residents as of September 2018.

### Implementation Status of FY12 PRA Grants

All states that were awarded FY12 grants had units occupied by PRA residents as of September 2018 (Exhibit A.7). Overall, 34 percent of FY12 Cooperative Agreement units were occupied, and states had between 12 and 91 percent of their Cooperative Agreement units occupied by this time. On average, FY12 grantees had units under RAC for three-quarters of the units they had planned. Three states had 99 percent or more of their Cooperative Agreement units under RAC, and three states had fewer than half under RAC. **Combining units under RAC and ARAC, most FY12 grantees had identified over 80 percent of units they expected to fund with their PRA grants, and five had reached or exceeded their unit goals.**

Exhibit A.7: Implementation Status of FY12 Grantees as of September 2018, by State




Source: Abt Associates analysis of Section 811 PRA Quarterly Reports for quarter ending September 2018.

### Implementation Status of FY13 PRA Grants

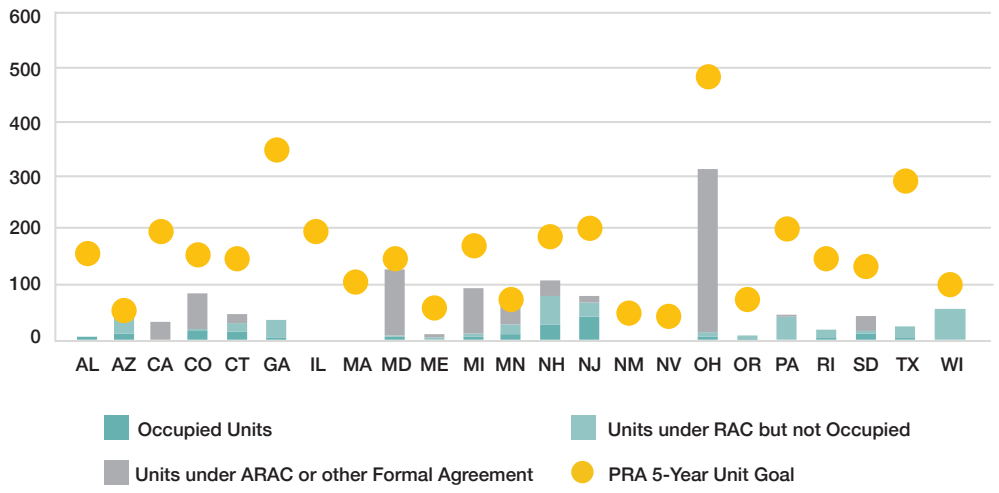
FY13 grantees had far fewer ARACs, RACs, and occupied units than FY12 grantees did (Exhibit A.8). Of the 23 FY13 grantees, nearly two-thirds had leased PRA units as of September 2018 (15 out of 23). Six FY13 grantees had leased more than 10 percent of their Cooperative Agreement units.

Four FY13 state grantees did not report any units under RAC, ARAC, or otherwise committed to the PRA program through September 2018—including two states that were funded in both years. Since FY12 grants must be disbursed by September 30, 2025, a year earlier than the FY13 disbursement deadline, grantees funded in both years are likely to prioritize leasing of FY12 units.

[71] Grantees report occupancy and vacancy rates quarterly.

[72] The PRA program allows grantees to provide vacancy payments to owners for up to 60 days before or after a unit becomes vacant for a PRA applicant or resident.

Exhibit A.8: Implementation Status of FY13 Grantees as of September 2018, by State




Source: Abt Associates analysis of Section 811 PRA Quarterly Reports for quarter ending September 2018.

## A.4 Characteristics of PRA Units under RAC

This section presents data on the characteristics of PRA units, both for units under contract for the PRA program and for specific units under lease by PRA residents. We show the distribution of bedroom sizes, the accessibility of units, and amounts of contract rents and actual rental subsidy amounts by bedroom size.

### Bedroom Size of Units

Grantees enter into agreements for a specified number of units and bedroom sizes. This allows the PRA program to serve households of varying sizes, including single individuals and individuals living with other family members, caregivers, or roommates. Still, grantees expect the PRA program to mostly serve single-person households.

As of September 2018, the majority of units under RAC and occupied by PRA residents were designed for small households of one or two people, as shown in Exhibit A.9. The majority of units under RAC were for one person or a couple: 60 percent of units under RAC were one-bedroom units, and 12 percent were single-room occupancy units (SROs) or efficiencies.[73] Approximately a quarter of units (25 percent) under RAC were two-bedroom units, and 3 percent were three-bedroom units.

The distribution of bedroom sizes for units occupied by PRA residents is similar to the distribution of bedroom sizes of units under RAC, suggesting that the units for which grantees have obtained agreements align somewhat with the demand for these units by applicants. More than half of occupied units (55 percent) were one-bedroom units, about one fifth (18 percent) were efficiencies/SROs, and a quarter (24 percent) were two-bedroom units. Very few (3 percent) were three-bedroom units.

All twenty states with occupied PRA units as of September 2018 had some combination of one- and two-bedroom units under lease.

### Accessibility of Units under Contract and under Lease

Grantees report the number of units under contract that are accessible for people with mobility, vision, and hearing impairments to HUD in quarterly grant progress reports, and they report the accessibility of units occupied by PRA residents in TRACS. Exhibit A.10 shows the accessibility of all units under RAC and reported under lease through September 2018.

Property owners cannot typically identify PRA units as accessible or not until a particular unit is vacant and available for lease to a PRA resident. PRA units float within a housing development, rather than specific units being designated as such. Therefore we do not know the accessibility status of the majority of units under RAC (68 percent). We also don't know the accessibility of 43 percent of units occupied by PRA residents, and the accuracy of the other data reported is unclear.

[73] SROs are single room dwelling units that may share a bathroom or kitchen. Efficiencies are units with their own bathrooms and kitchens but no separate bedrooms.

Exhibit A.9: Section 811 PRA Units under RAC and under Lease as of September 2018, by Bedroom Size

| | # of PRA Units under RAC[a] | % of PRA Units under RAC | # of PRA Units Leased | % of PRA Units Leased |
|---|---|---|---|---|
| SROs/efficiencies | 262 | 12% | 116 | 18% |
| One-bedroom units | 1,330 | 60% | 358 | 55% |
| Two-bedroom units | 567 | 25% | 156 | 24% |
| Three-bedroom units | 74 | 3% | 20 | 3% |
| **Total** | **2,233** | **100%** | **650** | **100%** |

[a] Grantees reported 2,234 units under RAC, with bedroom sizes missing for 1 unit under RAC.

Sources: Abt Associates analysis of Section 811 PRA Quarterly Reports for quarter ending September 2018; Abt Associates analysis of TRACS Household data for period ending September 30, 2018.

With those caveats, grantees reported that 18 percent of units under contract are accessible (378 units): 15 percent of units were accessible to people with mobility impairments (326 units), 2 percent accessible to people with hearing impairments (36 units), and 1 percent of units accessible to people with visual impairments (16 units). Grantees reported that 15 percent of units under contract were not accessible.

Of the 650 units occupied by PRA residents with available HUD administrative data as of September 2018, grantees reported that only 44 units, or 7 percent of leased units, were accessible. Of these, all 44 were accessible for people with mobility impairments or multiple impairments. Grantees reported an additional 50 percent of occupied units were not accessible.

The uncertainty of the data makes it unclear whether the supply of accessible units matches the demand. Grantees do not report to HUD how many applicants need accessible units or are on the waiting list.

Exhibit A.10: Section 811 PRA Units under RAC as of September 2018, by Accessibility

| Type of Accessibility | # of PRA Units under RAC | % of PRA Units under RAC | # of PRA Units Leased | % of PRA Units Leased |
|---|---|---|---|---|
| Hearing Impaired | 36 | 2% | 0 | 0% |
| Visually Impaired | 16 | 1% | 0 | 0% |
| Mobility Impaired / Multi-access | 326 | 15% | 44 | 7% |
| Not Accessible | 327 | 15% | 327 | 50% |
| Unknown | 1,529 | 68% | 279 | 43% |
| **Total** | **2,234** | | **650** | |

Sources: Abt Associates analysis of Section 811 PRA Quarterly Reports for quarter ending September 2018; Abt Associates analysis of TRACS Household data for period ending September 30, 2018.

## Rent and Rental Subsidy Levels

One goal of the PRA program is to provide affordable housing more cost-effectively than other affordable housing programs, while continuing to serve households with extremely low incomes. The grant NOFA encouraged grantees to maximize its subsidies by targeting units that would produce the lowest possible per-unit costs. Eligible properties are those with capital costs financed by other affordable housing programs such as LIHTC, HOME, or the National Housing Trust Fund.

Grantees determine the maximum amount of rent that property owners can charge PRA residents within certain parameters set by HUD. Rents cannot exceed the area's applicable Fair Market Rent (FMR) or Small Area FMR, which is used as a standard for the HCV and other affordable housing programs and is determined annually by HUD. Rents must also be affordable to residents earning up to 50 percent of the Area Median Income (AMI). HUD established incentives in the FY12 and FY13 NOFAs to encourage applicant states to propose lower per-unit subsidy costs than would be required if the PRA rents were based on FMR. Several grantees responded by proposing maximum PRA

rents in their grant applications that were lower than FMR, and were set to be affordable to households earning between 20 and 50 percent of AMI.

HUD expects that matching PRA funds with other affordable housing programs will result in PRA subsidy costs that will be significantly less than if the units were offered at FMR. The lower a grantee's per-unit subsidy costs, the more units the grantee can make available to PRA households. Rental subsidies provided to a unit are based on the difference between the unit rent and what tenants pay toward rent based on their income. Thus, the final number of units that a PRA grant can support cannot be determined until all the PRA units are leased.

Exhibit A.11 shows the grantees' commitments to establish rents. The exhibit shows whether the grantees set rent levels based FMR, based on being affordable to households earning a certain percentage of AMI, or based on a combination of approaches that might differ by location.

Of FY12 grantees, six established rent levels at FMR, five to be affordable to households earning up to 50 percent AMI, and one (Georgia) to be affordable to households earning up to 60 percent of AMI. Of FY13 grantees, 10 established rent levels at FMR, and the remaining to be affordable to households earning a percentage of AMI or a combination of FMR and AMI. Of them, three states (Connecticut, New Jersey, and Wisconsin) set rents to be affordable to households earning up to 30 percent of AMI, and one (Georgia) to be affordable to households earning up to 60 percent of AMI.

Exhibit A.11: Grantee Commitment for Units Rent Levels as of September 2018, by Grant Year and State

| FY12 | | FY13 | |
|---|---|---|---|
| State | Grantee Commitment for Unit Rent Levels | State | Grantee Commitment for Unit Rent Levels |
| California | FMR | Alaska | 47% AMI |
| Delaware | At or below 50% AMI | Arizona | FMR (20% AMI) |
| Georgia | 60% AMI | California | FMR |
| Illinois | FMR | Colorado | FMR |
| Louisiana | FMR | Connecticut | 30% AMI |
| Massachusetts | 50% AMI | Georgia | 60% AMI |
| Maryland | 50% AMI | Illinois | FMR |
| Minnesota | 50% AMI | Maine | 50% AMI |
| Montana | FMR | Maryland | 50% AMI |
| Pennsylvania | 50% AMI | Massachusetts | 50% AMI |
| Texas | FMR | Michigan | 50% AMI |
| Washington | FMR | Minnesota | 50% AMI |
| | | New Hampshire | FMR |
| | | New Jersey | 30% AMI |
| | | Nevada | FMR |
| | | Ohio | 30% AMI (50% AMI) |
| | | Oregon | FMR |
| | | Pennsylvania | 50% AMI |
| | | South Dakota | FMR |
| | | Texas | FMR |
| | | Washington | FMR |
| | | Wisconsin | 30% AMI |

**Source: Abt Associates analysis of Section 811 PRA Quarterly Reports for quarter ending September 2018.**

## Contract Rent for Units under RAC

The contract rent is the maximum amount of rent that owners can charge PRA residents. The executed RAC between the grantee and owner identifies PRA contract rents by unit size. Exhibit A.12 shows the contract rent by bedroom size for all units leased since the PRA program began, including for households that have since exited the program. The average monthly contract rent for all occupied PRA units through September 2018 was $741, ranging from $331 to $1,761. The median contract rent was $704. As expected, contract rents increased with bedroom size. The average contract rent was $694 for a studio, $693 for a one-bedroom unit, $856 for a two-bedroom unit, and $981 for a three-bedroom unit.

Exhibit A.12: Contract Rent and Rental Assistance Payment for Units under Lease as of September 2018, by Bedroom Size

| Contract Rent (Monthly) | | | | | |
|---|---|---|---|---|---|
| | Studio / 0 Bedroom | 1 Bedroom | 2 Bedrooms | 3 Bedrooms | All Units |
| N | 116 | 358 | 156 | 20 | 650 |
| Minimum contract rent | $476 | $360 | $331 | $590 | **$331** |
| Average contract rent | $694 | $693 | $856 | $981 | **$741** |
| Median contract rent | $660 | $675 | $816 | $990 | **$704** |
| Maximum contract rent | $1,009 | $1,301 | $1,761 | $1,274 | **$1,761** |
| **Rental Assistance Payment (Monthly)** | | | | | |
| | Studio / 0 Bedroom | 1 Bedroom | 2 Bedrooms | 3 Bedrooms | All Units |
| N | 112 | 320 | 125 | 14 | 571 |
| Minimum rental assistance payment | $236 | $123 | $35 | $261 | **$35** |
| Average rental assistance payment | $494 | $517 | $676 | $738 | **$553** |
| Median rental assistance payment | $471 | $481 | $662 | $803 | **$493** |
| Maximum rental assistance payment | $900 | $1,114 | $1,653 | $1,033 | **$1,653** |

**Note: Rental assistance payments were only included for 571 of 650 units in the TRACS data because 79 rental assistance payment amounts appeared to be errors and were removed from the data or were not reported.**

**Source: Abt Associates analysis of TRACS Household data for period ending September 30, 2018.**

## Rental Assistance Payments of Units under Lease

Rental assistance payments are the amount of subsidy that HUD pays grantees to pay property owners for units under lease for the Section 811 PRA program. Exhibit A.13 also shows the minimum, maximum, median, and average rental assistance payment by bedroom size for units under lease. For all bedroom sizes, the average rental assistance payment was $553 per month, ranging from $35 to $1,653. The median rental assistance payment was $493 a month. Average monthly assistance payments were $494 for studio apartments, $517 for one-bedroom apartments, $676 for two-bedroom apartments, and $738 for three-bedroom apartments.

### *Difference between Estimated and Actual Rental Assistance Payments*

Exhibit A.13 shows the difference between the estimated average monthly rental assistance payment in their Cooperative Agreements and the actual average monthly rental assistance paid to property owners through September 2018. Among states where rental assistance payment data is available for residents, the estimated average monthly rental assistance amount assumed in grantees' Cooperative Agreement budgets was $508, ranging from $226 in Illinois to $1,055 in Maryland. On average, the actual monthly cost for assistance payments was $554, ranging from $262 in New Jersey to $1,214 in Connecticut. The actual average amounts shown in the exhibit are only for less than 10 percent of total planned PRA units, and may not be representative of future trends.

For all reported rental assistance payments, the average monthly subsidy amount was $46 higher on average than assumed in the Cooperative Agreements ($554 for states with estimated average rental payments available compared to an estimated average of $508), but variance was larger than the average difference across states.

The actual monthly costs for assistance payments were closest to estimated costs in Delaware ($534 actual costs compared to an estimated monthly payment of $502).

In six states, including Delaware, Minnesota, Montana, Pennsylvania, Texas, and Washington, actual rental subsidy costs were higher than grantees had estimated in their Cooperative Agreements. States where actual monthly subsidies were substantially higher than estimates were Montana ($192), Texas ($175), and Washington ($137). Four states, California, Georgia, Louisiana, and Maryland, overestimated the rental subsidy amounts; that is, actual average subsidy amounts have been lower than expected. The differences range from $73 to $195 per month.

Exhibit A.13: Estimated and Actual Rental Assistance Amounts through September 2018, by State

| State | # Units with Reported Payments (N=598) | Estimated Average Monthly PRA Rental Assistance | Actual Average Monthly PRA Rental Assistance | Difference between Estimated and Actual Monthly Payments |
|---|---|---|---|---|
| Arizona | 5 | [a] | [b] | [a] |
| California | 71 | $705 | $534 | ($171) |
| Colorado | 14 | [a] | $871 | [a] |
| Connecticut | 14 | [a] | $1,214 | [a] |
| Delaware | 37 | $502 | $534 | $32 |
| Georgia | 13 | $441 | $368 | ($73) |
| Illinois | 4 | $226 | [b] | N/A |
| Louisiana | 66 | $597 | $522 | ($75) |
| Massachusetts | 8 | [a] | [b] | [a] |
| Maryland | 21 | $1,055 | $860 | ($195) |
| Minnesota | 82 | $503 | $587 | $84 |
| Montana | 16 | $351 | $543 | $192 |
| New Hampshire | 4 | [a] | [b] | [a] |
| New Jersey | 41 | [a] | $262 | [a] |
| Ohio | 2 | [a] | [b] | [a] |
| Pennsylvania | 63 | $378 | $452 | $74 |
| South Dakota | 12 | [a] | $363 | [a] |
| Texas | 44 | $478 | $653 | $175 |
| Washington | 51 | $354 | $491 | $137 |
| **Average** | **30** | **$508** | **$554** | **$46** |

[a] = Not available.

[b] Actual average monthly PRA rental assistance not shown due to small sample reporting restrictions.

Notes: Contract rent and rental assistance payment only available in TRACS for 457 of 474 PRA residents. Some rental assistance payment amounts appeared to be errors and were removed from the data. Units under lease in states with FY12 and FY13 grants are compared to FY12 grant estimates because the majority of units are reported as units under FY12 grantees.

Source: Abt Associates analysis of TRACS Household data for period ending September 30, 2018.

## A.5 Status of Applicant Referrals and Lease-Ups

PRA funds may only be provided for households with extremely low household incomes and with at least one person with disabilities who is at least 18 and no older than 61 years old at the time of initial occupancy of PRA units. The eligible person must be eligible for Medicaid-funded community-based long-term services and supports or similar services from state programs. PRA applicants must meet these PRA program eligibility requirements in addition to meeting the owner's requirements for the specific property where PRA applicants want to live. In this section, we present characteristics of applicants and referrals to the PRA program, applicants on the waiting list for available PRA units, and applicants who did not meet PRA program or owner eligibility criteria for the FY12 and FY13 grantees.

### Target Populations of PRA Grants

As part of their PRA grant applications, grantees specified specific vulnerable populations they planned to target as part of their PRA program. They often defined those populations by living situation, such as living in an institution; experiencing homelessness; residing in a group home, adult care housing, or other residential group home; or transitioning from foster care. Grantees also targeted individuals at risk of institutionalization or homelessness without access to affordable, community-based housing. Several grantees also chose to target people with specific types of disabilities, such as serious mental illness, developmental disabilities, and physical disabilities. Exhibit A.14 shows the intended target populations for the FY12 grantees, and Exhibit A.15 shows the intended target populations for FY13 grantees.

Exhibit A.14: Section 811 PRA Grants Target Populations (FY12 Grantees)

| State | Institutionalized | At Risk of Institutionalization | Leaving Group Home, Adult Care Home, or Residential Home | Experiencing Homelessness or at Risk of Homelessness |
|---|---|---|---|---|
| California | √ | √ | | |
| Delaware | √ | √ | | √ |
| Georgia | √ | | | √ |
| Illinois | √ | √ | | |
| Louisiana | √ | √ | | √ |
| Maryland | √ | √ | √ | √ |
| Massachusetts | √ | | | |
| Minnesota | √ | | | √ |
| Montana | √ | √ | √ | √ |
| Pennsylvania | √ | √ | √ | √ |
| Texas | √ | √ | | √ |
| Washington | √ | √ | | √ |

**√ means that the state's PRA program targets this population.**

**Source: "Section 811 Project Rental Assistance: Bringing Supportive Rental Housing to Scale. Status Report to Congress," US Department of Housing and Urban Development, Office of Multifamily Housing, January 2014.**

Exhibit A.15: Section 811 PRA Grants Target Populations (FY13 Grantees)

| | Living Situation | | | | | Disability | | | |
|---|---|---|---|---|---|---|---|---|---|
| State | Institutionalized | At Risk of Institutionalization | Leaving Group Home, Adult Care Home, or Residential Home | Experiencing Homelessness or at Risk of Homelessness | Money Follows the Person Program | People with Serious Mental Illness | People with Developmental Disabilities | People with Physical Disabilities | Transitioning from Foster Care |
| Alaska | √ | | √ | | | | | | √ |
| Arizona | | | | | | | √ | | |
| California | √ | √ | | √ | √ | √ | √ | √ | |
| Colorado | √ | √ | | √ | √ | | | | |
| Connecticut | √ | √ | | √ | √ | √ | √ | √ | |
| Georgia | √ | | | √ | | √ | | √ | √ |
| Illinois | √ | √ | | √ | √ | √ | √ | √ | |
| Massachusetts | √ | | | | | | | | |
| Maryland | √ | √ | √ | √ | | | √ | | |
| Maine | √ | | | | √ | √ | √ | √ | √ |
| Michigan | √ | √ | √ | √ | √ | | | | |
| Minnesota | √ | | | √ | √ | √ | | | |
| New Hampshire | √ | | | | | √ | | | |
| New Jersey | √ | √ | | | | √ | √ | | |
| New Mexico | | √ | | √ | | √ | | | √ |
| Nevada | | | | | | | | √ | |
| Ohio | | | | | √ | √ | √ | √ | |
| Oregon | √ | | √ | √ | | √ | √ | | |
| Pennsylvania | √ | √ | √ | | | | | | |
| Rhode Island | √ | | | √ | √ | | | | |
| South Dakota | | | | | | | √ | | |
| Texas | √ | | | | √ | √ | √ | | √ |
| Wisconsin | √ | √ | | | | | | | |

**√ means that the state's PRA program targets this population.**

**Source: Analysis by the Technical Assistance Collaborative, 2017.**

All twelve FY12 grantees targeted people institutionalized, and all but three FY12 grantees targeted people at risk of institutionalization. Nine states targeted people experiencing or at risk of homelessness.

Of the 23 FY13 grantees, 18 states targeted people living in institutions or at risk of institutionalization, and 11 states targeted people experiencing homelessness or at risk of homelessness. Five states targeted people leaving group homes, adult care homes, or other residential settings. Almost two-thirds of FY13 grantees also targeted people with serious mental illness or with developmental disabilities, and six states targeted people with physical disabilities. Three grantees did not choose any target populations based on living situation, selecting populations based only on a single disability type.

## PRA Applicant Referral Sources

Between 2015 and September 2018, grantees reported 12,506 applicants to the PRA program. Applicants are households that were referred to or completed applications for the PRA program during the quarter. We note that some applicants for programs in states that

received both FY12 and FY13 grants might be counted under both grant years. Because of this potential for double-counting, we do not report combined totals for FY12 and FY13 applicants in this section.

Almost all applicants were referred by either a service provider or a government agency, as shown in Exhibit A.16. Service providers referred 50 percent of applicants. The most common type of service provider referrals was from a mental health service provider (28 percent), followed by independent living facilities (7 percent) and service providers for intellectual/developmental disabilities (7 percent).

Exhibit A.16: Referral Source of Applicants through September 2018, by Grant Year

| Referral Source | |
|---|---|
| **N** | **12,506** |
| **Service Provider** | |
| Service Provider–Mental health | 28% |
| Service Provider–Intellectual / developmental disabilities | 7% |
| Service Provider–Centers for Independent Living | 7% |
| Service Provider–Other | 8% |
| **Total** | **50%** |
| **State/Local Human Service Agency or Authority** | |
| State/local mental health agency or authority | 22% |
| State/local intellectual / development disability agency or authority | 2% |
| State/local aging / adult services agency or authority | 6% |
| State/local child/family agency or authority | 2% |
| Other state/local human service agency or authority | 7% |
| **Total** | **38%** |
| Other | 12% |

**Source: Abt Associates analysis of Section 811 PRA Quarterly Reports for quarters from December 2014 through September 2018.**

State and local human service agencies or authorities referred an additional 38 percent of applicants. Of such referrals, mental health agencies were the most common referral source, referring 22 percent of applicants. Area aging and other adult services agencies referred 6 percent of applicants, development disability or other adult services agencies or authorities and state or local child and family agencies or authorities each respectively referred 2 percent of applicants. Seven percent were referred by other state or local human service agencies. Grantees selected "Other" as the referral source for 12 percent of applicants.

## Applicants by Living Situation

Grantees reported that more than one-fourth of applicants were homeless (26 percent), and about a fifth were institutionalized (21 percent) when they applied to the PRA program. Some 15 percent of applicants were reported to be at risk for being institutionalized and 12 percent were reported to be at risk becoming homeless (Exhibit A.17). An additional 17 percent of applicants were reported as having "other" living situations. About one in ten applicants were living in a group home, an adult care home, or other residential settings.

Exhibit A.17: Living Situation of Applicants through September 2018, by Grant Year

| Living Situation | FY12 |
|---|---|
| N | 12,432 |
| Institutionalized | 21% |
| At Risk of Institutionalization | 15% |
| Homeless | 26% |
| At Risk of Homelessness | 12% |
| Living in a Group Home, Adult Care Home, or Other Residential Setting | 8% |
| Other | 17% |

**Note: Grantees reported 12,506 applicants to the PRA program since the program started in 2015, with living situation missing for 68 applicants.**

**Source: Abt Associates analysis of Section 811 PRA Quarterly Reports for quarters from December 2014 through September 2018.**

## Living Situation of Applicants on Waiting List

Many grantees developed waiting lists for their PRA program, but they organize and use them in different ways. Grantees and their partners may maintain waiting lists at the state, region, contracted service providers, or property level. HUD asks grantees to report the number of applicants on their waiting lists for PRA units that have been determined eligible for the PRA program. As of September 30, 2018, grantees reported 5,991 applicants on their waiting lists for units available through FY12 grants and 3,302 through the FY13 grants.[74]

Exhibit A.18 below shows the living situation at the time of application for applicants on the waiting lists by grant year. Over one-third of FY12 applicants on the waiting list were experiencing homelessness (36 percent), and 19 percent were institutionalized. An additional 8 percent of applicants resided in group homes, adult care homes, or other residential settings.

For FY13, one-third of applicants on the waitlist were experiencing homelessness (33 percent), 15 percent were living in a group home, adult care home or other residential setting, and 12 percent were living in institutions. One-fourth of applicants on the waitlist (25 percent) had other or unknown living situations.

Exhibit A.18: Living Situation of Applicants on the Waitlist through September 2018, by Grant Year

| Living Situation | FY12 | FY13 |
|---|---|---|
| N | 5,991 | 3,302 |
| Institutionalized | 19% | 12% |
| At Risk of Institutionalization | 14% | 14% |
| Homeless | 36% | 33% |
| At Risk of Homelessness | 5% | 1% |
| Living in a Group Home, Adult Care Home, or Other Residential Setting | 8% | 15% |
| Other/Unknown | 17% | 25% |

**Source: Abt Associates analysis of Section 811 PRA Quarterly Reports for quarter ending September 2018.**

[74] Maryland has a combined waiting list that includes applicants for other housing programs. The state's total of 2,277 applicants represents a broader population than those on the waiting list for PRA assistance. Because of the bias this adds to the data, we removed Maryland from the sample presented above. In addition, three states, Georgia, Minnesota, and Pennsylvania, listed the same number of applicants for both FY12 and FY13; we suspect those grantees might have reported the same applicants in both grant years, resulting in double counting.

### Applicants Found Ineligible for the PRA Program and Properties

To move into PRA-subsidized units, applicants must be determined eligible for the PRA program by age, income, and disability, and for home and community-based services. Since the start of the PRA program, 2,007 households have been determined ineligible based on program eligibility requirements—1,777 households by FY12 grantees and 300 households by FY13 grantees. Typically, the grantee state housing agency or partnering health or other agencies determine eligibility before applicants apply to specific properties with PRA units. Some PRA programs, however, do not determine program eligibility until applicants apply to specific properties.

Exhibit A.19 shows the living situation at the time of application of households reported ineligible for the PRA program, by grant year. Of households determined to be ineligible for FY12 units, 35 percent were at risk for homelessness, and 15 percent were experiencing homelessness. Only 7 percent of ineligible applicants were living in an institution, and 10 percent were at risk for institutionalization. An additional 3 percent of applicants were living in a group home, adult care home, or other residential setting. More than a quarter (30 percent) had "other" living situations.

Of FY13 applicants that were found ineligible for the program, 21 percent were institutionalized, and 20 percent were experiencing homelessness. About one-tenth are living in a group home, an adult care home, or other residential settings (10 percent), and similar to FY12 grantees, 30 percent of applicants had other living situations (30 percent).

Exhibit A.19: Living Situation of Ineligible Applicants through September 2018, by Grant Year

| Living Situation | FY12 | FY13 |
|---|---|---|
| N | 1,777 | 300 |
| Institutionalized | 7% | 21% |
| At risk of institutionalization | 10% | 16% |
| Homeless | 15% | 20% |
| At risk of homelessness | 35% | <4%[a] |
| Living in a group home, adult care home, or other residential setting | 3% | 10% |
| Transitioning from foster care | 0% | 0% |
| Other | 30% | 30% |

[a] Exact percentages not shown due to small sample reporting restrictions.

Source: Abt Associates analysis of Section 811 PRA Quarterly Reports for quarters from December 2014 through September 2018.

Since 2015, 4,289 households have been referred to specific properties with PRA units to complete lease applications. To move into PRA-subsidized units, applicants also must meet the application requirements set forth by the property owner, such as income, rental history, credit history, and criminal background. Since 2015, owners determined that 747 households that applied to live at their properties did not meet their requirements, representing 17 percent of the households referred to PRA units.

Owners screened out 8 percent of applicant households referred to PRA units in 2015, 19 percent in 2016, 12 percent in 2017, and 19 percent of households in 2018. Of households that owners screened out, nearly half were determined ineligible because of criminal history (46 percent), 16 percent were rejected for having poor credit histories, 13 percent for poor rental histories, and 5 percent because they were unable to submit required documents. Grantees reported that 26 percent of households were denied for "other" reasons. Reasons the grantees selected the "other" category included applicants withdrawing their application after submitting it or being over the age limit at the time of application.

## A.6 Characteristics of Households That Moved into PRA Units

This section provides selected data on the prior living situation and duration of tenancy of households that moved into PRA units as of September 2018.

## Previous Living Situation of Households that Moved into PRA Housing

Grantees report that 1,229 households moved into PRA units since the beginning of the PRA program in 2015 through September 2018 (Exhibit A.20). Of households that moved into FY12 grantee units, nearly one third (32 percent) had been institutionalized, and 23 percent were experiencing homelessness directly prior to being assisted by PRA. Six percent of residents moved from group homes, adult care homes, or other residential settings, and six percent moved from "other" housing. Of households that moved into FY13 grantee units, 24 percent had been previously institutionalized, 32 were at risk for institutionalization, 21 percent had been previously experiencing homelessness, and 13 percent were living in a group home, adult care home, or other residential setting.

Exhibit A.20: Previous Living Situation of PRA Residents through September 2018, by Grant Year

| Living Situation | FY12 | FY13 |
|---|---|---|
| **N** | **1,021** | **208** |
| Institutionalized | 32% | 24% |
| At risk of institutionalization | 16% | 32% |
| Homeless | 23% | 21% |
| At risk of homelessness | 16% | 8% |
| Living in a group home, adult care home, or other residential setting | 6% | 13% |
| Transitioning from foster care | <5%[a] | 0% |
| Other | 6% | <5%[a] |

[a] Exact percentages not shown due to small sample reporting restrictions.

Source: Abt Associates analysis of Section 811 PRA Quarterly Reports for quarters from December 2015 through September 2018.

## Length of Tenancy

Most current residents in PRA-assisted units had fairly short durations of tenancy as of September 2018. As shown in Exhibit A.21, of the 1,851 PRA households reported living in PRA units, 41 percent had moved into PRA housing within the last 6 months, 25 percent had moved in between 7 and 12 months ago, and 26 percent had moved in between 1 and 2 years ago. Only 15 percent of residents living in FY12 units had lived in their units for more than 2 years.

Exhibit A.21: Housing Tenure of Current PRA Residents through September 2018

| Tenure | N | % |
|---|---|---|
| 6 Months or fewer | 755 | 41% |
| 7-12 months | 470 | 25% |
| 13-24 months | 473 | 26% |
| 25-48 months | 153 | 8% |
| **Total** | **1,851** | **100%** |

Source: Abt Associates analysis of Section 811 PRA Quarterly Reports for quarter ending September 2018.

## A.7 Exits from PRA Units

Cumulatively, 216 PRA households have exited the PRA program since the program began—three in 2015, 19 in 2016, 74 in 2017, and 120 in 2018 (Exhibit A.22). Just under one-third of households that left of their own accord (34 percent), 25 percent exited for other housing, and 9 percent left for other reasons. Another one-third of household exits (32 percent) were initiated by the owner; 8 percent were for non-payment of rent and 24 percent were for other reasons. Some 18 percent of residents died, 8 percent moved back into institutional care, and 9 percent left for other or unknown reasons or moved out without giving notice.

Exhibit A.22: Reasons Tenants Left PRA Housing through September 2018

| Reason | N | % |
|---|---|---|
| Tenant initiated–left for other housing | 53 | 25% |
| Tenant Initiated–other | 20 | 9% |
| Owner initiative–non-payment of rent | 18 | 8% |
| Owner Initiated–other | 51 | 24% |
| Death | 38 | 18% |
| Institutionalized | 17 | 8% |
| Unknown/Disappeared or Other | 19 | 9% |
| **Total** | **216** | |

**Source: Abt Associates analysis of Section 811 PRA Quarterly Reports for quarters from December 2014 through September 2018.**

## A.8 Housing Choice Vouchers Leveraged

HUD awarded extra points in the Section 811 PRA NOFA competitions for applicants that obtained commitments from one or more public housing authorities to leverage HCV or other affordable housing units for people with disabilities. The 2012 NOFA awarded points to applicants for setting aside a number of HCVs or other rental units specifically for the PRA program's target population. The 2013/2014 NOFA awarded points to applicants with commitments from one or more PHAs to establish an admissions preference for the Section 811 target population. Either grant year commitment could not include vouchers already set aside as part of the PHA's allocation of NED vouchers.

In their quarterly progress reports to HUD, grantees self-report the number of HCV and other units that PHAs leased each quarter. Such data on affordable units leveraged for the PRA program should be interpreted with caution, as grantees report the data inconsistently. From administrative interviews conducted in the study states, we learned that grantees use various metrics to count units leased to the state's PRA program target population. Some grantees count every HCV or unit issued by their agency to a household that includes a person with a disability. It is not clear whether PHAs set aside the unit once for a PRA target population household, or the units would also be available to the target population upon turnover.

Exhibit A.23 shows the HCVs or other rental units that the states committed to leveraging and the number of housing units the grantees reported leased by PHAs as of September 2018, by grant year. Overall, grantees from both funding years reported that PHAs issued 89 percent of their total committed units through September 2018. Most FY12 grantees (9 of 12) committed to leveraging HCVs or other housing units on their PRA grant applications. Through September 2018, eight FY12 grantees reported issuing 1,521 HCVs or units out of 1,437 committed units. Four FY12 state grantees reported leasing as many or more units than they originally committed to leverage.

Of the 23 FY13 grantees, 11 obtained commitments from PHAs to issue HCV or other housing units, or to develop admissions preferences for the state PRA program's target population, for their PRA grant applications. Through September 2018, seven of the states reported leasing a total of 751 out of 1,060 committed units (71 percent of their total commitment). All but one grantee reporting any leveraged vouchers also reported meeting 100 percent of their leveraged unit commitment.

## Exhibit A.23: HCVs Leveraged for PRA Properties, by Grant Year and State

| State | HCVs Committed to Leveraging | HCVs Issued through September 2018 | Percentage of Committed HCVs Issued |
|---|---|---|---|
| **FY12** | | | |
| Delaware | 74 | 83 | 112% |
| Georgia | 175 | 80 | 46% |
| Illinois | 695 | 654 | 94% |
| Louisiana | 125 | <10[a] | <8% |
| Maryland | 97 | 283 | 292% |
| Massachusetts | 50 | 37 | 74% |
| Minnesota | 60 | 60 | 100% |
| Pennsylvania | 152 | 316 | 208% |
| Washington | 9 | 0 | 0% |
| **Total** | **1,437** | **1,521** | **106%** |
| **FY13** | | | |
| Alaska | 100 | <10[a] | <10% |
| Arizona | 27 | 27 | 100% |
| California | 150 | 0 | 0% |
| Colorado | 206 | 451 | 219% |
| Connecticut | 75 | 75 | 100% |
| Maine | 33 | 33 | 100% |
| Michigan | 174 | 0 | 0% |
| New Jersey | 103 | 103 | 100% |
| Ohio | 95 | 0 | 0% |
| Oregon | 40 | 0 | 0% |
| Wisconsin | 57 | 57 | 100% |
| **Total** | **1,060** | **751** | **71%** |
| **Combined Grant Years** | | | |
| **Total** | **2,547** | **2,256** | **89%** |

[a] Exact value suppressed due to small sample reporting restrictions.

Source: Abt Associates analysis of Section 811 PRA Quarterly Reports for quarters from December 2014 through September 2018.

# Appendix B: Section 811 PRA Phase II Evaluation Methods

## B.1 Overview of the Section 811 PRA Phase II Evaluation

*The Phase II Evaluation of the Section 811 Project Rental Assistance (PRA) Program* examines whether there is evidence that the PRA approach achieves better short-term housing, neighborhood, and services outcomes for its residents compared to similar people in the Project Rental Assistance Contract (PRAC) program, to similar people in other HUD housing assistance programs, or to similar people enrolled in Medicaid but not served by a federal housing assistance program. The evaluation also assesses the PRA program's progress on its goals to create effective state-level partnerships, produce affordable rental housing units for the PRA target populations, and successfully transition eligible people to those units while providing coordinated access to the services and supports they want and need to live in community-based settings.

The primary construct of the evaluation is an impact study that compares outcomes for PRA to outcomes for individuals in four comparison groups of individuals similar to those assisted by PRA.

The evaluation's research approach integrates multiple quantitative and qualitative data sources:

- Housing, healthcare utilization, and neighborhood administrative data from the U.S. Department of Housing and Urban Development (HUD), Centers for Medicare & Medicaid Services (CMS), state Medicaid agencies, and publicly available federal datasets
- PRA program administrative data and program documents
- Administrative interviews with HUD staff that administer the PRA program
- Administrative interviews with staff from state housing agency grantees, state Medicaid agencies, and other PRA program partners
- In-person surveys administered to PRA and PRAC residents

The Phase II evaluation focuses on PRA outcomes, costs, and implementation in six states: California, Delaware, Louisiana, Maryland, Minnesota, and Washington. These states were selected because they had made the most progress leasing PRA units when the study's evaluation research design was completed in March 2017.

### A Multi-Phase Evaluation

The Melville Act that authorized the PRA program also required an evaluation of the program's effectiveness. HUD undertook a multi-phase, independent evaluation of the PRA program:

- **Phase I:** The first phase of the evaluation, completed in July 2017, consisted of a process evaluation and case studies to assess the early implementation of the PRA program in 12 states funded in the first round of PRA grants (awarded through HUD's FY12 Notice of Funding Availability (NOFA)).[75] That first phase was conducted by BCT Partners, with Abt Associates as a subcontractor, between 2015 and 2017.
- **Phase II:** In September 2016, HUD awarded Abt Associates a contract for the second phase of the evaluation of the PRA program. This phase builds on the earlier work, focusing on a subset of 6 states selected from the 27 state housing agency grantees in the first and second rounds of PRA funding (in response to HUD's FY12 and FY13 NOFAs).

### Phase II Research Questions

The overarching research questions for the Phase II evaluation were:

- What is the early evidence on how PRA residents fare relative to similar individuals in terms of quality of life, housing and neighborhood characteristics, housing tenure, use of tenancy supports, and healthcare utilization patterns?
- How do PRA residents compare to non-elderly people with disabilities served in other HUD programs, and to similar people not served in HUD programs, in terms of demographics, health diagnoses and chronic conditions, and historical healthcare utilization patterns?
- What is the early evidence of the cost-effectiveness of the PRA program relative to other HUD programs that assist people with disabilities?

[75] Final reports for Phase I of the PRA program evaluation can be found at https://www.huduser.gov/portal/publications/section-811-processeval-report.html

- Do state housing agencies and their health agency partners develop effective, sustainable partnerships that result in a growing inventory of affordable rental units with access to voluntary supportive services for people with disabilities?

### Phase II Coordinated Sub-studies

The study team addressed these broad questions through three coordinated sub-studies: the impact study, the economic study, and the implementation study.

*Impact Study*

An impact study of the PRA program compared the quality of life, housing, and healthcare utilization patterns of PRA residents and four comparison groups:

- **Group 1: PRAC.** Section 811 PRAC residents. Like PRA, Section 811 provides structured access to services. Unlike PRA, PRAC residents live in housing set aside primarily for people with disabilities.
- **Group 2: NED.** People assisted by Non-elderly Disabled (NED) vouchers. The NED program does not typically provide structured access to services.[76]
- **Group 3: Other HUD.** Non-elderly people with disabilities participating in several of HUD's other assisted housing programs (public housing, Housing Choice Voucher, and multifamily housing) that provide rental subsidies to non-elderly people with disabilities but that, unlike PRA and PRAC, do not provide structured access to services.
- **Group 4: Non-HUD.** Non-elderly people with similar characteristics and service utilization patterns to PRA and PRAC residents who are enrolled in Medicaid but who are not served by any of the other HUD programs in Group 3 and may be in any other housing situation (for example, living with family, homeless, in market-rate housing, or in institutional settings).

A critical component of the impact study was selecting an analytic sample from the universe of individuals in the study groups so that the comparison groups are similar to the PRA resident group in terms of existing diagnoses, disability types, prior healthcare utilization, and demographic characteristics. The study used a multi-stage data matching approach to construct similar comparison groups and used propensity score reweighting and regression models to estimate the differences in outcomes between the PRA and comparison groups.

*Economic Study*

The economic study measured the costs of housing and healthcare and supportive services for PRA residents, and estimated the costs of the PRA approach relative to the costs of PRAC, NED, and other HUD programs. Our study calculated total costs per participant and separated costs into categories of program implementation and administration, housing, support services, and healthcare utilization. To the extent possible, we made additional comparisons of housing and healthcare costs for PRA and PRAC programs versus estimates of costs of alternative housing assistance programs, and for healthcare costs to the non-HUD group.

*Implementation Study*

The implementation study of the PRA program documented the strength and sustainability of PRA partnerships and how the partnerships influenced program implementation and contributed to program successes and challenges. Through interviews with PRA program staff and partners and surveys of PRA residents, we documented grantees' and their partners' housing strategies for allocating the PRA subsidies to property owners, for determining PRA unit rent levels and locations, for identifying PRA applicants and coordinating resident placement into PRA units, and for ensuring that appropriate services are in place for PRA residents as they transition to PRA units and through their ongoing tenancy. Qualitative information from the implementation study also provided context to the findings of the impact and economic studies.

## B.2 Evaluation Data Sources

The study relied on numerous quantitative and qualitative data sources: HUD administrative data, healthcare data from CMS and state Medicaid agencies, publicly available neighborhood data, a survey of Section 811 residents, and administrative interviews with staff who administer the PRA program.

### B.2.1 HUD Administrative Data

The study uses several HUD administrative data sources to capture information on PRA and PRAC residents, PRA and PRAC properties, PRA grantees, and PRAC property owners. Data sources are the Integrated Real Estate Management System (iREMS), the Tenant Rental Assistance Certification System (TRACS), HUD's Inventory Management System / PIH Information Center (IMS/PIC), and HUD Multifamily's Online Property

[76] NED Category II vouchers awarded in 2011 enable non-elderly persons with disabilities to transition from nursing homes and other healthcare institutions into the community. PHAs that received NED Category II vouchers were required to ensure that voucher holders have access to community-based supportive services needed for residents to live independently in the community.

Integrated Information Suite (OPIIS). These data sources are combined and used to construct analytical samples and to provide administrative data that are important to all three study components. Exhibit B.2.1 lists the HUD administrative data sources and the types of data we obtained from each source.

Exhibit B.2.1: HUD Administrative Data Sources

| HUD Data Source | Administrative Data |
|---|---|
| Integrated Real Estate Management System | PRA and PRAC property data |
| Tenant Rental Assistance Certification System | PRA and PRAC resident data |
| Inventory Management System / PIH Information Center | NED and Other HUD-assisted comparison group resident data |
| Office of Multifamily Online Property Integrated Information Suite | PRA and PRAC property data |
| Section 811 PRA Quarterly Reports | PRA program data |

Abt staff requested and received HUD administrative data from TRACS, iREMS, and IMS/PIC at the end of each quarter during the study period from March 31, 2017, through September 2018.[77] The first sample included participant-level data as of the end of each quarter ending between March 31, 2014, and March 31, 2017. Abt staff received subsequent data sets each quarter between for the quarters ending June 30, 2017; September 30, 2017; December 31, 2017; March 31, 2018; June 30, 2018; and September 30, 2018.

The study uses HUD administrative data from different quarters for different purposes. In general, we relied on the most recent available data at the time of the analysis:

- Abt used the June and September 2017 data files to pull the match files for the CMS data extract, the state Medicaid extracts, and the resident survey sample.
- From the December 2017 extract, we added any additional PRA and PRAC residents for the resident survey sample that were not in the September 2017 extract.
- Abt used the HUD administrative data extracts from March 31, 2018, for the descriptive demographic information about residents, for geocoded location information to determine neighborhood outcomes, and for estimating rental subsidies in the economic study.
- Abt used grantee quarterly report data from all quarters December 31, 2014, through September 30, 2018.

### Integrated Real Estate Management System (iREMS)

Information from HUD's iREMS contains data on the HUD Office of Multifamily Housing's portfolio of insured and assisted properties. Abt received 36 iREMS data tables for each quarter between March 31, 2017, and September 30, 2018, for the six study states. iREMS data includes property data for PRAC properties and for units with PRA units under contract.

The iREMS data extracts included the following types of information:

- properties (building type, number of units, number of assisted units, number of market- rate units, date of construction or last rehabilitation),
- PRA or PRAC-assisted units (bedroom size, accessibility, contract rent, fair market rent, utility allowance), and
- owners (type of owner organization and legal structure, owner and management agent contact information).

Data from the iREMS database was used to provide descriptive characteristics of PRA and PRAC properties. Owner and management contact information was used to identify and conduct outreach to PRA and PRAC residents for surveys.

Some of the iREMS data were incomplete or appeared inaccurate for a portion of PRA and PRAC properties. For example, the database is missing data accessibility of most units under lease for both PRA and PRAC properties. The building type was not populated for the majority of PRAC properties, and data on the number

[77] Abt received HUD administrative data extracts as of March 30, 2017; June 30, 2017; September 30, 2017; December 30, 2017; March 30, 2018; June 30, 2018; and September 30, 2018. Abt received additional data for TRACS and IMS/PIC for the periods ending March 30, 2014; June 30, 2014; September 30, 2014; December 30, 2014; March 30, 2015; June 30, 2015; September 30, 2015; December 30, 2015; March 30, 2016; June 30, 2016; September 30, 2016; and December 30, 2016. Abt anticipates receiving additional data for periods ending March 30, 2018, and June 30, 2018, for all data sources

of buildings for many properties appear inaccurate. The number of total units in properties with PRA units was also missing or incorrect for approximately 10 percent of properties with PRA units under contract. To obtain corrected information on total unit counts for these properties, Abt staff contacted the state housing agencies or the property owners.

### Tenant Rental Assistance Certification System

TRACS is the main system that HUD uses to collect and store data on the individuals and families living in HUD multifamily housing. Abt received five household-level TRACS data tables for each quarter between March 2017 and March 2018. These tables provide information on PRA and PRAC households including financial (household income, subsidies received) and demographic characteristics (household composition, age, race, and gender). TRACS also provides data on units and properties (unit type, unit numbers, property locations, and contract rents). Abt received TRACS data extracts for PRA and PRAC residents in the six study states for each quarter between March 30, 2014, and March 30, 2018, to inform the analytic sample. TRACS data was also used to calculate rental subsidies for the economic study.

We used geocoded addresses from TRACS to match PRA and PRAC residents to neighborhood characteristics and indicators. We used property identifiers to match tenant and property data in TRACS and to property data in iREMS. TRACS also contained personally identifiable information (PII) necessary for matching housing records to CMS and state Medicaid enrollment and claims records.

TRACS data have some limitations. PRA and PRAC household data in TRACS are not always current as owners have up to 90 days after a household moves into an assisted unit before having to report tenant information in TRACS. It was also not clear whether program exit data were entered by owners in a timely manner.

### Inventory Management System / PIH Information Center

HUD's IMS/PIC systems store information on units, buildings, and residents housed through HUD's public housing, housing choice vouchers (HCV), and NED programs. The study team used IMS/PIC data to select individuals in the NED and other assisted HUD comparison groups and for the descriptive analysis of demographic and household characteristics. Abt received five IMS/PIC data tables for each quarter between March 31, 2017, and March 2018. The tables provide resident information in these HUD programs that is similar to the PRA and PRAC resident information in TRACS. Similar to the TRACS data, the IMS/PIC tenant-level data contain geocoded addresses that were used to match PRA and PRAC residents to neighborhood characteristics and indicators and contains PII that is used to match housing records to CMS and state Medicaid enrollment and claims records.

### Online Property Integrated Information Suite

HUD's OPIIS is a consolidated source of data from HUD's various multifamily systems. It includes a variety of property-level information, including annual financial statements and contract details. Abt used financial information from OPIIS to inform the economic study.

### Section 811 PRA Quarterly Reports

PRA grantees submit quarterly reports 30 days after the end of each quarter. Quarterly reports include data on the number and characteristics of PRA units under contract and under lease, and descriptive data on PRA applicant and residents. Abt received quarterly reports for every quarter from March 30, 2015, through September 2018, for all states in the PRA program.[78]

## B2.2 Healthcare Data

The study obtained data on chronic conditions and healthcare utilization from CMS and from state Medicaid agencies.

### CMS Research Data Assistance Center

The study team obtained Medicaid and Medicare enrollment and claims data from CMS's Research Data Assistance Center (ResDAC) in January 2018. ResDAC is the data warehouse where Medicare claims and administrative files are housed along with Medicaid claim history. The study team used HUD administrative data on PRA, PRAC, and other HUD-assisted households to generate a finder file to submit to ResDAC. In response, we received individual-level CMS administrative data for all the requested HUD-assisted residents matched to Medicaid and Medicare beneficiaries in the most recent data available (event-level Medicare fee-for-service (FFS) claims for 2014 and 2015, and Medicaid FFS claims and managed care encounter data for 2012–2013). We also received these data for a large random sample of adults under the age of 65 and who were residents of the six study states to serve as the non-HUD comparison group.

[78] This includes reports for March 31, 2015; June 30, 2015; September 30, 2015; December 31, 2015; March 31, 2016; June 30, 2016; September 30, 2016; December 31, 2016; March 31, 2017; June 30, 2017; September 30, 2017; December 31, 2017; March 31, 2018; June 30, 2018; and September 30, 2018; during the study period.

The ResDAC data included four segments of the Medicare Beneficiary Summary File (MBSF) for 2014 and 2015. MBSF data contain individual-level summary information on demographics, enrollment, and annualized payment and utilization variables for any Medicare beneficiary that had coverage at any point in time during the 2-year period. We also received Research Identifiable Files (RIF), which contain event-level Medicare FFS claims for institutional (Part A) and non-institutional (Part B) providers. Claims include beneficiary identifiers, provider of service identifiers, dates of service, diagnosis codes, procedure codes, and reimbursement amounts. RIFs are organized by type of claim. The data we received include event-level records of inpatient (not including skilled nursing facility or hospice), outpatient, physician/supplier, and durable medical equipment services.

There are limitations to ResDAC data. Medicare administrative data readily available from CMS for research purposes do not include managed care encounter data for beneficiaries enrolled in a Medicare managed care plan (Part C). Even the summary information on utilization and spending in the MBSF Cost and Use segment does not include utilization covered by managed care plans.

We also received data from the Medicaid Analytic eXtract (MAX) database. These data included the Medicaid Person Summary file and individual FFS claims and managed care encounter data for 2012 and 2013. Like the MBSF, the Person Summary file contains demographic characteristics, Medicaid enrollment, and annualized payment and utilization variables for each beneficiary that had Medicaid coverage at any point in time during the 2 calendar years. Medicaid FFS claims and managed care encounter data contain event-level information on beneficiaries' utilization of inpatient, outpatient, long-term care, and pharmacy services, including dates of service and corresponding diagnosis and procedure codes. FFS claims contain information on amounts reimbursed to the provider by Medicaid; managed care encounter records do not include reimbursement information.

### State Medicaid Data

The study team entered into individual Data Use Agreements (DUAs) with state Medicaid agencies in each of the six study states to access state Medicaid data claims data for individuals in the analysis sample. We obtained the most recent available individual-level Medicaid FFS claims, managed care encounter, and enrollment data in order to measure outcomes at a date after placement in PRA units for as many participants as possible. We obtained these data for PRA and PRAC residents, NED voucher recipients, residents of other HUD-assisted housing, as well as individuals not in HUD-assisted housing, between ages 18 and 64, enrolled in Medicaid for at least one month, and with diagnoses and medical procedures identified as predictive of PRA participation (the non-HUD comparison group).[79] Section 3.5 discusses how we used the ResDAC data to identify historical diagnoses and medical procedures predictive of PRA participation.

Each state provided us with all fee-for-service claims and managed care encounter data for Medicaid enrollees who were matched to individuals in the PRA and HUD comparison groups based on the Social Security Number, name, gender, and date of birth.

The state claims data we received represent two periods of time:

- California, Delaware, Louisiana, and Maryland provided Medicaid enrollment and adjudicated claims and encounter data from January 1, 2015, through December 31, 2016.
- Minnesota and Washington provided adjudicated data from January 1, 2015, through June 30, 2017.

Fee-for-service claims include beneficiary identifiers, claim type identifiers, providers of service identifiers, dates of service, diagnosis codes, medical procedure codes, and reimbursement amounts. For managed care enrollees, Medicaid agencies pay a monthly per member fee to managed care organizations to provide healthcare services required by enrollees. The organizations submit "encounter" claims with the same information about the service, treating provider, and other patient-level detail found in FFS claims but, for some states, the encounter data does not include information on reimbursement to providers.

There are limitations to the state Medicaid data. The study team put significant effort into working with the state Medicaid agencies to procure data fields as uniform as possible across the six states but, as expected, there was significant variability in the content and structure of the data. Despite substantial differences between the states' data, we were able to define a core set of measures of healthcare utilization that were specified the same across the six study states, which are described in Section 3.1.

[79] We provided the states with specific criteria related to diagnoses and medical procedures to select a sample of Medicaid enrollees for the non-HUD group. To reduce the size of the non-HUD sample to one agreed upon by the Abt and state's institutional review boards, we asked states to randomly sample from the pool of Medicaid enrollees who matched these criteria (California also restricted the sample to enrollees in PRA ZIP Codes). The final sample sizes of the non-HUD groups provided to us by the states varied across the six states. We later matched these non-HUD samples to PRA residents using a propensity-score weighting and multivariate regression based on demographics, healthcare utilization rates, and diagnoses of chronic or disabling conditions.

Data limitations related to lags in the availability of complete Medicaid claims and managed care encounter data collected directly from states affect the analysis. The healthcare utilization analysis relies on state Medicaid data to compare healthcare utilization before PRA residents moved into their PRA unit with their post-move-in experiences. We obtained state Medicaid data from all states starting from January 2015. Except for two out of the six states, the latest state Medicaid data available was through December 2016. Medicaid data from Minnesota and Washington was through June 30, 2017. Because of these lags, and because the number and pace of PRA lease-ups has been modest, we restricted the study sample to PRA residents who moved into their units during 2016 (or the first half of 2017 if they resided in Minnesota or Washington), and we only observed seven months of health care utilization, on average, after they moved into their units. The reduced sample size may limit our ability to detect impacts, and the results from this brief follow-up period may not reflect longer-term patterns that may be observed in the future.

### B.2.3 Neighborhood Data

The impact analysis uses a number of neighborhood indicators to assess neighborhood quality and neighborhood characteristics. The study team uses neighborhood indicators from four publicly available sources:

- The 2017 American Community Survey (ACS) for census tract-level household data on the percent of households with a person with a disability; on income, education, race and ethnicity characteristics; and on urban area designation. We also extracted 2010 census-level data on the neighborhood's housing stock, including the percent that is single-family owner-occupied and the numbers of units in buildings within census tracts.
- HUD's Affirmatively Furthering Fair Housing (AFFH) neighborhood data for census-tract level information on percent of households with incomes below the poverty line and on neighborhoods that are Racially and Ethnically Concentrated Areas of Poverty (RECAP).
- Transit Index and Walkability indexes from the AARP's Livability Index.[80]
- Air quality ratings from the U.S. Department of Environmental Protection (EPA)'s 2014 National Air Toxics Assessment database.[81]

Census-tract level data for these measures were matched to individuals in the comparison groups using geocoded locations from HUD administrative data. Additionally, we weighted outcomes and adjusted for multiple comparisons as part of the impact study.

### B.2.4 Survey of Section 811 PRA and PRAC Residents

Abt conducted in-person surveys with 403 Section 811 PRA and PRAC residents in the study states to gain their feedback on their housing and neighborhood, daily life, and access to the services and supports they need. The study team used the results of the resident survey to compare outcomes of PRA and PRAC residents in the impact study and to provide the resident perspective for the implementation study.

- **PRA Residents:** Abt conducted outreach to all residents in all PRA households who had been living in PRA units and identified in HUD administrative data as of December 2017.
- **PRAC Residents:** Abt included only residents who moved into PRAC properties in 2013 or later in order to make their tenure more similar to that of PRA residents. Abt obtained a sample of 100 residents per state by randomly selecting PRAC properties with at least three residents who met our criteria and were within 10 miles of a PRA property. The maximum of PRAC residents selected per property was 12. Residents were randomly ordered within each property so that, if there were more than 12 residents or the sample reached 100 residents before sampling all residents at a property, there would be no selection bias in who was surveyed. Abt selected additional properties and residents as replacement residents in case we did not obtain our needed completion rates from the sample of 100 PRAC residents from each state. In states where the number of PRAC residents within ten miles of a PRA property was not much higher than 100, Abt included additional PRAC properties within 15 miles of PRA properties as replacements.

Abt designed the resident survey instrument largely by using or adapting items from three existing validated surveys: the Money Follows the Person (MFP) Quality of Life survey, the Consumer Assessment of Healthcare Providers and Systems (CAHPS) Home and Community Based Services Survey, and HUD's Resident Satisfaction Survey. The resulting 75-item survey took between 20 and 45 minutes to complete. Following skip patterns, not all residents answered all the questions.

[80] https://www.huduser.gov/portal/affht_pt.html#affhassess-tab, http://opportunityindex.org/about/; https://livabilityindex.aarp.org/
[81] https://www.epa.gov/national-air-toxics-assessment/2014-national-air-toxics-assessment

Abt conducted cognitive testing of the survey instrument at six PRAC properties in Massachusetts in April and May 2017. After cognitive testing, Abt conducted a pilot test with the revised survey instrument with six PRA residents in Maryland in November 2017. Abt conducted outreach to PRA and PRAC residents by mail in the six case study states, using resident addresses from the TRACS administrative data, and maintained a toll-free number for residents to call to schedule a time to complete the survey in person. As potential survey respondents were selected from HUD administrative data that was not always up to date, in some cases additional eligible residents were identified and selected when the interviewers were onsite conducting surveys with other residents.

Abt staff completed 403 surveys: 194 surveys with PRA residents and 209 surveys with PRAC residents in the six case study states (Exhibit B.2.2.) The PRAC survey results were weighted and adjusted for multiple comparisons as part of the impact study.

## B.2.5 PRA Program Documents

The study team reviewed a number of PRA program documents for programs in the six study states. These include grantee applications and related materials for the 2012 and 2013 funding rounds, Cooperative Agreements between HUD and the grantees, and partnership agreements between grantees and their partners. Where available, the team also reviewed written PRA program policies and procedural documents for details on how the grantee and partners implement the grant program in their state. Examples of procedural documents that were reviewed are outreach materials to property owners, property owner applications for PRA subsidies, tenant selection plans, tenant program applications, and PRA property monitoring and inspections protocols. The study team also collected and reviewed relevant statewide plans and reports to help document external factors in the six study states that could potentially affect the implementation of the PRA program. These include Olmstead Plans and updates, statewide plans to end homelessness, state and local affordable housing studies, housing needs assessments, Analysis of Impediments to Fair Housing Choice, and information on services available through state Medicaid home and community-based services (HCBS) waiver programs.

Exhibit B.2.2: Surveys Completed by State and Type of Property

| State | # of PRA Surveys Completed | # of PRAC Surveys Completed | Total Surveys Completed |
|---|---|---|---|
| California | 35 | 25 | 60 |
| Delaware | 17 | 24 | 41 |
| Louisiana | 62 | 27 | 89 |
| Maryland | 21 | 73 | 94 |
| Minnesota | 33 | 29 | 62 |
| Washington | 26 | 31 | 57 |
| **Total** | **194** | **209** | **403** |

**Source: Abt Associates' internal survey tracking.**

## B.2.6 Interviews with PRA Program Staff

The study conducted qualitative interviews between October 2017 and May 2018 with grantees and program partners to learn how the PRA program is carried out in the study states. Abt staff conducted interviews with staff who administer the PRA program at state housing agencies and partnering state health agencies, and staff from a sample of PRA program partners: owners of properties with PRA units, and service providers who serve PRA applicants or residents (Exhibit B.2.3).

Staff also conducted telephone interviews with staff from five public housing authorities (PHAs) that set aside or established admissions preferences for a set number of HCVs or other rental units specifically for extremely low-income, non-elderly people with disabilities.

Most of the administrative interviews were completed in person during site visits, including all of the grantee interviews and all but one of the health agency staff interviews. The study team used NVivo qualitative analysis software to systematically review interview responses and code the data by a series of themes and topic areas organized by the study's research questions.

Exhibit B.2.3: Completed Administrative Interviews for PRA Evaluation

| State | Grantee Agency/ Partnering Housing Agencies | Partnering Health Agencies | # of Property Owners Interviewed | # of Service Providers Interviewed |
|---|---|---|---|---|
| California | California Housing Finance Agency<br>Department of Housing and Community Development<br>Tax Credit Allocation Committee | Department of Health Care Services<br>Department of Developmental Services | 4 | 8 |
| Delaware | Delaware State Housing Authority | Department of Health and Social Services | 4 | 3 |
| Louisiana | Louisiana Housing Authority | Louisiana Department of Health and Hospitals | 5 | 4 |
| Maryland | Maryland Department of Housing and Community Development | Maryland Department of Health and Mental Hygiene<br>Maryland Department of Disabilities | 4 | 6 |
| Minnesota | Minnesota Housing Finance Agency | Minnesota Department of Human Services | 3 | 2 |
| Washington | Washington Department of Commerce | Department of Social and Health Services | 4 | 4 |
| **Total** | **8** | **8** | **24** | **27** |

**Source: Abt Associates' internal interview tracking.**

## B.3 The Analytic Sample for the Impact and Economic Studies

The objective of the PRA evaluation is to examine early evidence of the effectiveness of the PRA program for its residents compared to similar people living in other settings. The central research question addresses what might have happened to this group of very low income, non-elderly people with disabilities if the PRA program did not exist. To answer this question, several alternative counterfactual states could be conceptually relevant. One possibility is to assume that everyone in PRA units might instead have been placed in Section 811 PRAC units. Another possibility is that they would be in other HUD-assisted housing programs for persons with disabilities, including the NED voucher program, or in other HUD-assisted housing like public housing or the HCV program. Still another possibility is that they would be spread across a wide variety of housing options not subsidized by HUD, both institutional and community- based, with or without structured access to long-term services and supports.

The impact study compares PRA to each of the counterfactuals (PRAC, NED, or other HUD, and non-HUD programs) in several key areas (Exhibit B.3.1). The study does not compare all categories of impacts for all the comparison groups. The primary comparison group is PRAC, and all impacts measured for PRA in the study are compared to PRAC. Neighborhood outcomes and costs are compared for PRAC, NED, and other HUD groups using administrative data from HUD on housing, unit, and tenant characteristics, as well as enrollment and healthcare claims data from CMS and state Medicaid agencies. Because we only have CMS and state Medicaid data on healthcare utilization and spending for the non-HUD group, the comparison of PRA to the non-HUD group is only made for healthcare outcomes and costs.

The study uses survey results of PRA and PRAC residents to compare resident perception of their properties and neighborhoods, use and need for tenancy supports, and how well residents are integrated into their communities.

Exhibit B.3.1: Categories of Measured Impacts Compared to PRA

| Impact Category | PRAC | NED | Other HUD | Non-HUD |
|---|---|---|---|---|
| Housing tenancy | X | | | |
| Neighborhood characteristics | X | X | X | |
| Perception of property and neighborhood | X | | | |
| Use and need for tenancy supports | X | | | |
| Community integration | X | | | |
| Healthcare utilization | X | X | X | X |
| Costs | X | X | X | |

Abt created an analytic sample from the universe of individuals in the study groups so that the comparison groups are comparable to the PRA resident group in terms of existing diagnoses, disability types, prior healthcare utilization, and demographic characteristics, such as age and gender. The study uses a multi-stage data-matching approach to construct similar comparison groups and propensity score reweighting and regression models to estimate the differences in outcomes between the PRA and comparison groups.

## B.3.1 Impact Study Outcome Measures

Exhibit B.3.2 provides a summary of the outcomes of interest for the Impact Study, the measures we used, and the data sources for these measures. Measures are categorized according to research question.

Exhibit B.3.2: Impact Study Research Matrix

| Impact Research Domain | Measures | Data Source |
|---|---|---|
| **How does healthcare utilization post-occupancy among PRA residents compare to PRAC residents, to other HUD assisted housing residents, and to a non-HUD comparison group?** | | |
| Inpatient admissions | • # of inpatient hospital admissions<br>• # of inpatient hospital days<br>• # of 30-day inpatient hospital readmissions<br>• # of inpatient hospital admissions for mental health conditions | • States' Medicaid claims/administrative data |
| Emergency department visits | • # of visits per quarter<br>• # of visits not resulting in inpatient admission | • States' Medicaid claims/administrative data |
| Medical transportation | • # of days that emergency or non-emergency medical transportation was used | • States' Medicaid claims/administrative data |
| Long-term services and supports | • # of days in long-term inpatient care<br>• # of admissions to long-term inpatient care<br>• Indicator of any admission to long-term inpatient care<br>• Indicator of any use of personal care attendant services<br>• Indicator of any use of case management services | • States' Medicaid claims/administrative data |
| **How do quality of life and care PRA residents compare to PRAC residents?** | | |
| Health status | • Participant-reported physical health status<br>• Participant-reported mental health status | • PRA and PRAC resident survey |

(cont)

Exhibit B.3.2: Impact Study Research Matrix (cont)

| Impact Research Domain | Measures | Data Source |
|---|---|---|
| Access to supportive services and unmet needs | • Support received from informal caregivers<br>• Housing modification and special equipment needs<br>• Unmet need for supportive services | • PRA and PRAC resident survey |
| Quality of care | • Participant feedback on quality of care received by service providers | • PRA and PRAC resident survey |
| Transition to Section 811 | • PRA resident perspective on housing choice and whether housing and location preferences were met<br>• Types of transition supportive services received | • PRA and PRAC resident survey |
| Community integration | • Residents can be independent in the property<br>• Residents knowing other people in the property<br>• Residents knowing other people in the neighborhood<br>• Residents reporting being able to see friends and family when they want to | • PRA and PRAC resident survey |
| **How do housing and neighborhood characteristics for PRA residents compare to PRAC residents?** | | |
| Rental subsidies | • Participant rental subsidy amounts<br>• Contract rent<br>• Contract rent as a percentage of the area Fair Market Rent<br>• Utility allowances<br>• Total tenant payments | • TRACS data |
| Tenure | • Average length of stay before exiting<br>• Reasons for program exits | • TRACS data |
| Housing quality | • Resident perception of housing quality<br>• Resident perception of privacy in unit and property<br>• Resident perception of property safety<br>• Resident-reported maintenance problems with unit or property<br>• Resident report of wanting to move from home and reason why | • PRA and PRAC resident survey |
| Neighborhood quality | • Resident perception of neighborhood safety<br>• Resident report of being able to get around neighborhood easily<br>• Resident report of being able to access transportation when they need it<br>• Participant report of access to grocery stores, pharmacies, healthcare services, etc. | • PRA and PRAC resident survey |
| Neighborhood demographics | • Percentage of population below poverty line<br>• Racially/Ethnically-Concentrated Areas of Poverty (R/ECAP)<br>• Percent of adults ages 25 and over with high school diploma or higher<br>• Disabled population by age | • Affirmatively Furthering Fair Housing Data |
| Livability indicators | • Transit: frequency of public transportation<br>• Walkability: modeled daily walk trips per household<br>• Environmental health: potential exposure to harmful toxins | • AARP Livability Index<br>• Opportunity Index<br>• Affirmatively Furthering Fair Housing Data |

## B.3.2 Constructing the Analytic Sample

The analytic sample for the impact study comprises PRA and four comparison groups. Individuals living in PRA units represent the primary "treatment" group of interest, and similar individuals the PRAC, NED, other HUD, and non-HUD groups provide distinct counterfactual comparison groups. We did not have access to the entire universe of Medicaid and Medicare administrative data to match the four comparison groups to the PRA residents, so the primary analytic approach to creating the comparison groups was weighting based on race and ethnicity, gender, age, any dependents, income, rent, prior Medicaid and Medicare enrollment, diagnoses of chronic and disabling conditions, and historic rates of healthcare utilization.

### Multi-Stage Process for Constructing the Analytic Sample

The study team collected and matched information from HUD, CMS, and state Medicaid Agencies' administrative data using a multi-stage process. We estimated regression models using propensity-score-based weights to approximate the "propensity-score double robust" (PS-DR) method, using both a weighted sample and regression adjustment to determine the treatment effect on treated units.

In the **first and second stages**, we used tenant characteristics data from HUD, including personally identifiable information, to match PRA, PRAC, NED, and other HUD-assisted individuals to beneficiaries found in the ResDAC Medicare database and the Medicaid Analytic eXtract (MAX) database.

We received the most recent 2 years of final action claims and encounter data available from ResDAC as of October 2017 (Medicaid data for 2012–2013 and Medicare data for 2014–2015). These data included matches to a finder file of Social Security numbers (SSNs) provided to ResDAC to identify individuals in the PRA, PRAC, NED, and other HUD-assisted groups (Exhibit B.3.3). They also included three groups of other age-eligible residents of the six study states to make up the non-HUD group:

- ***Group 1*** consists of 869,425 SSNs not in the study finder file that appear in both Medicare and Medicaid Control files (have unique ResDAC "Bene IDs" that are in common).
- ***Group 2*** consists of 694,662 Bene IDs that are not in the Medicaid cohort and are not in the finder file.
- ***Group 3*** consists of 3,140,550 Medicaid MSIS (Medicaid Statistical Information Statistics) ID/state codes that do not have a corresponding Bene ID in the Medicare cohort and are not in the finder file.

Exhibit B.3.3: Percentage of HUD Tenants on September 30, 2017, Enrolled in Medicaid in 2012–2013 or Medicare in 2014–2015

| | | Any Match | | Medicare Match | | Medicaid Match | | Both Match | |
|---|---|---|---|---|---|---|---|---|---|
| Group | Total | N | % | N | % | N | % | N | % |
| PRA | 426 | 368 | 86% | 101 | 24% | 362 | 85% | 95 | 22% |
| PRAC | 6,125 | 5,561 | 91% | 3,425 | 56% | 5,278 | 86% | 3,142 | 51% |
| NED | 8,282 | 7,580 | 92% | 3,821 | 46% | 7,276 | 88% | 3,517 | 42% |
| Other HUD | 165,082 | 152,621 | 92% | 73,581 | 45% | 146,248 | 89% | 67,208 | 41% |
| **Total** | **179,915** | **166,130** | **92%** | **80,928** | **45%** | **159,164** | **88%** | **73,962** | **41%** |

**Sources: Abt Associates analysis of TRACS and PIC household data from the quarter ending on September 30, 2017; Medicaid Analytic eXtract (MAX) Person Summary File for 2012–2013 received through ResDAC; and Medicare Beneficiary Summary File Base A/B/D segment for 2014–2015 received through ResDAC.**

The **third stage** involved using the HUD tenant data for individuals receiving PRA, PRAC, NED, or other HUD assistance to request matches to beneficiaries found in data from Medicaid agencies in the six study states. We also requested a larger sample of Medicaid enrollees (not receiving HUD assistance) to serve as the non-HUD group in each state. Because state Medicaid agencies limit the amount of sensitive personal health information they will transmit to third parties such as Abt, we were limited in the sample of data we could obtain for the non-HUD sample. To comply with the agency requests to narrow the sample, we provided each state with a specific set of diagnostic criteria to use in selecting the non-HUD sample. This strategy allowed us to receive coarsely matched data for the non-HUD group, which facilitated propensity score modeling for refining the group at a later stage. To select the criteria, we used the ResDAC data matched to PRA residents and the non-HUD sample and analyzed primary

diagnosis codes on medical claims and encounter data to identify clusters of diagnosis codes most predictive of receiving PRA assistance.

The **final stage** was to finalize the analytic samples by implementing the PS-DR method to derive weights that will make the comparison groups similar to PRA residents in demographic characteristics and in healthcare utilization and diagnostic information history.

### Three Analytic Samples

We created three separate analytic samples during the final stage. The several different types of outcomes of interest in the impact study are measured using different data sources (HUD administrative data, State Medicaid data, PRA and PRAC resident surveys, public-use data), each with their own time-horizons, inclusion criteria, and other sorts of limitations. The PS-DR method was used to derive weights specific to each sample of PRA residents and comparison groups for:

1. **Healthcare utilization outcomes.** The analyses of healthcare utilization used state Medicaid data collected only during 2015 and 2016, so we restricted the sample to PRA residents who moved in during 2016, and individuals in the HUD comparison groups who moved into their units between 2013 and 2016 in order to observe utilization by PRA residents after they move into their units.[82] The covariates used to estimate the propensity-score weights and regressions were based on demographic and housing-related information from HUD administrative data, as well as diagnoses of chronic and disabling conditions and prior healthcare utilization measured from the 2015 state Medicaid data.
2. **Neighborhood outcomes.** The analysis of neighborhood characteristics features a more extensive sample of PRA residents and comparison groups, although the comparison groups were restricted to individuals who moved into their units in 2013 or later.[83] In order to capture the most information possible for the entire sample of individuals, we used the less recent 2012–2013 Medicaid data and 2014–2015 Medicare data from ResDAC to match the comparison groups (excluding the non-HUD group) to PRA residents based on chronic and disabling and conditions and historical healthcare utilization patterns. Demographic and housing information from HUD administrative data is also included in the PS-DR model.
3. **PRA and PRAC survey outcomes.** We also matched the survey samples of PRA and PRAC residents using HUD administrative data and the ResDAC data.

### Descriptive Demographic Characteristics of the Study Groups

In creating the analytic sample, we reviewed observable characteristics of the individuals whose outcomes we were analyzing to describe how PRA residents and the other groups differ on the basis of demographic and socioeconomic characteristics. The comparison provides context for the impact study research by providing insight into how PRA residents are, on average, different from other non-elderly, non-disabled served by other HUD housing programs in terms of observable demographic and socioeconomic characteristics.

We calculated averages using the sample means of individual-level characteristics for race and ethnicity, age, household size, unit size, and annual income and subsidy amount. We selected these variables both because they are prominent demographic and socioeconomic characteristics and because they are included in HUD administrative data. To calculate these averages, we used administrative data from TRACS (for PRA and PRAC) and IMS/PIC (for NED and other HUD programs) where each characteristic is reported for each individual. Our sample in this analysis includes all individuals under age 65 in the six study states who receive assistance from the PRA, PRAC, or NED programs and all individuals under age 65 who report having a disability and who receive assistance from other HUD programs.

## B.3.3 Impact Analysis

Within the coarsely matched samples of PRA residents and the four comparison groups, regression models corresponding to the equation below were estimated using a propensity-score-based weight to approximate the PS-DR method, using both a weighted sample and regression adjustment to determine the treatment effect on treated units.

[82] The earliest year that a PRA resident had moved into their unit was 2013. Additionally, we also include individuals in the PRA and comparison groups who live in Minnesota and Washington and moved in during the first half of 2017 since they could be linked to post-occupancy data on utilization.

[83] The year that individuals moved into their residency into the propensity score models (see Appendix section 3.2) was highly predictive of PRA participation since there was no limit placed on how long individuals in the comparison groups have been living in their units. The PRA residents did not start to move in until 2013 and most of the PRA residents in our sample moved in between 2016 and 2017. Including the year the individuals moved into their unit in the propensity score model led to the inability to balance the distributions of other resident characteristics across the PRA and comparison groups. To at least somewhat balance the length of resident tenure between the groups, we restricted the comparison groups to individuals who moved into their unit in 2013 or later.

$$E(Y|X,T) = f(Pa + Xb)$$

Y represents an outcome, P an indicator of housing type (treatment status), and X a matrix of past characteristics, so that the coefficient a estimates the mean treatment effect with associated standard error (primary confirmatory findings). We also estimated exploratory models with interactions as shown below.

$$E(Y|X,T) = f(Pa + Xb + PXc)$$

In this type of model, c measures treatment effect heterogeneity and the overall impact must be calculated as the average partial effects of P. The impact estimates from these exploratory models produced nearly identical results on average, so we do not report them here.

In all of these models, f() is an inverse link function, (the identity function f(x)=x for linear regression). All of the results we report use linear regression but in exploratory analysis, we also used the inverse logit f(x)=exp(x)/[1+exp(x)] for each binary outcome, the exponential function f(x)=exp(x) for count or nonnegative outcomes, and an inverse ordered logit for ordered categorical outcomes such as a Likert scale. After converting back to the original scales, impact estimates are essentially the same as those that arise from the linear model, so we report the same type of results throughout for simplicity.

Prior to the regression analysis, we reweighted each comparison group to represent the alternative counterfactuals. We reweighted each comparison group sample using estimates of the probability of being observed in the treatment group (residing in a PRA unit). We predict that probability using a logistic regression (logit) of an indicator of PRA residence on pre-treatment characteristics (demographics, past diagnoses of chronic and disabling conditions, and past healthcare utilization). The model generates a predicted conditional probability $p_i$ for each observation $i$ in the sample. Each observation in the comparison sample receives a weight $p_i/(1-p_i)$ to make the whole comparison sample representative of PRA units' outcomes had they not been assigned to PRA units but rather the comparison condition. That is, the unweighted PRA sample is compared (using regression) to each of the other reweighted groups, in turn, to measure what the PRA residents' outcomes might have been had they been instead assigned to PRAC properties, or NED, or other HUD comparison groups, or remained in institutions or acquired alternative housing as in the non-HUD comparison group.

The PS-DR method adjusts for observable differences in population characteristics to arrive at credible estimates of impacts. Only one of the two models (either the weight model or the regression model) is required to be correct to ensure high internal validity (that is, the method is robust to either assumption failing to hold). However, there are limitations to causal inference when using a method based on propensity score adjustment and regression adjustment. Both methods correct only for selection into treatment that depends only on observable factors. If there are unobserved variables that both affect selection into PRA and directly affect outcomes, our method will not correct bias that arises from those unobserved confounders. The data were analyzed using SAS and Stata software, with the primary impact analysis conducted in Stata 15, using methods documented in Emsley et al. (2008) and Nichols (2007).

### Adjustments to Hypothesis Tests due to Multiple Comparisons

We estimate the effect of the PRA program on several different outcomes and types of outcomes. Therefore, it is necessary to adjust the levels used to define the statistical significance of individual comparisons in order to account for the increased probability of reporting false positive results through multiple tests only by chance. Such adjustments are designed to control study-wide error rates and lower the probability of falsely rejecting true null hypotheses. We adjust the p-values for multiple comparisons using the ***Benjamini-Hochberg (B-H) procedure*** (Glickman, Rao, and Schultz, 2014), which involves the following steps. For each set of outcomes (that is, all survey outcomes, all neighborhood characteristics, and all healthcare utilization outcomes, respectively) and each comparison group (that is, PRA versus PRAC, PRA versus NED, PRA versus other HUD, or PRA versus non-HUD):

1. Put the individual p-values in ascending order.
2. Assign ranks to the p-values. For example, the smallest has a rank of 1; the second smallest has a rank of 2.
3. Calculate each individual p-value's B-H critical value, using the formula (i/m)Q, where i is the individual p-value's rank, m is the total number of tests, and Q is the false discovery rate (chosen to be 5 percent).
4. Compare the original p-values to the critical B-H from Step 3; find the p-values that are smaller than the critical value.

## B.3.4 Analysis of Program Exits

Using HUD administrative data from TRACS, the study team also compared program exit rates and reasons for exiting for PRA and PRAC residents. We analyzed program exits and reasons for exiting for PRA and PRAC residents between 2013 and September 2018. Exhibit B.3.4 shows the unweighted and unadjusted counts of program exits observed in iREMS for PRA and PRAC residents.

Exhibit B.3.4: Unweighted and Unadjusted Counts of PRA and PRAC Program Exits, 2013–2018

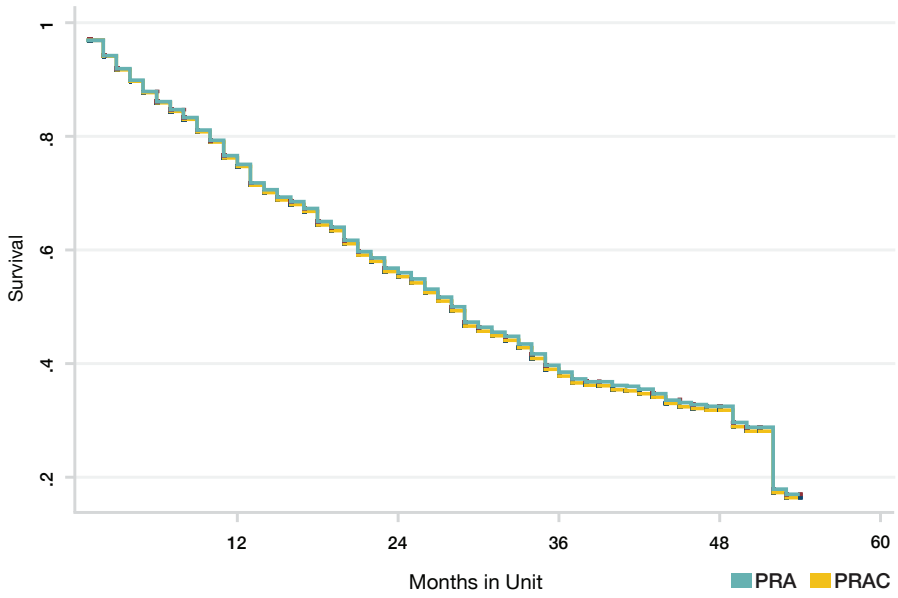
| Reason for Program Exit | PRA | PRAC | Total |
|---|---|---|---|
| Owner initiated for nonpayment of rent | 46 | 85 | 131 |
| Owner initiated--other | 36 | 230 | 266 |
| Tenant initiated--other | 62 | 933 | 995 |
| Death of sole family member | 26 | 215 | 241 |
| Abandoned unit | 19 | 41 | 60 |
| No exit observed | 648 | 2,770 | 3,418 |

**Source: Abt analysis of iREMS data between January 2013 and September 2018.**

We estimated a Cox proportional hazard model of program exit. This model uses the same double-robust (propensity score weighting and regression adjustment) approach as the other impact models. The model estimates the likelihood of exiting the program conditional on still being at risk of exit (the hazard rate), taking into account the varying lengths of time a resident has already received assistance in addition to individual baseline demographic and health characteristics. Coefficients of the model are interpreted as hazard ratios, which in our model are the ratio of the share of PRA residents expected to exit the program in a given month to the share of PRAC residents expected to exit that program that month. Hazard ratios greater than one reflect higher likelihood of exit for PRA as compared to PRAC, while ratios less than one reflect a lower likelihood of exit.

Exhibit B.3.5 shows the Cox proportional hazard model for rates of program exits for PRA and PRAC. The model estimates the amount of time before an event occurs. In our model, the event is the program exit of the resident and the model estimates the amount of time residents are assisted by PRA or PRAC before exiting the unit for any reason. The Cox model shows that the overall exit rate at any point in time is the same for PRA and PRAC residents. PRA and PRAC residents still at risk of an exit (that is, those who have not yet exited) both exit at a steady rate of about 20 to 25 percent for each year after move-in for the first 3 years and then the hazard decreased in year four, so persistence (or "survival" in the parlance of hazard models) levels off in year 4. Sample sizes beyond month 48 are too small to conclude anything with confidence about hazards or persistence beyond month 48 (in year 5).

Exhibit B.3.5: Cox Proportional Hazards Regression for Rates of Program Exits for PRA and PRAC Residents—Any Exit Type




Source: Abt analysis of program exit data from TRACS for PRA and PRAC residents as of September 2018.

Exhibit B.3.6 shows hazard ratios for reasons for exiting the program. Each row is a separate Cox model regression reporting the coefficient on PRA residents relative to PRAC. For example, the hazard ratio of 5.74 for owner-initiated nonpayment of rent shows that PRA residents are 5.74 times more likely to exit for nonpayment of rent than PRAC residents. In this exhibit, the only statistically significant differences in reasons for exits are for owner-initiated nonpayment of rent and for tenant-initiated reasons. However, this large difference in hazards for PRA corresponds to a very low prevalence, on the order of half a percent a year (compared to about 1 percent in a thousand for PRAC). In contrast, the point estimate on tenant-initiated (other) reasons corresponds to a larger gap in prevalence of exit, with exits on the order of 14 percent a year for PRA and 7 percent a year for PRAC; however this difference could be due to chance (that is, the hazard ratio does not differ statistically from 1).

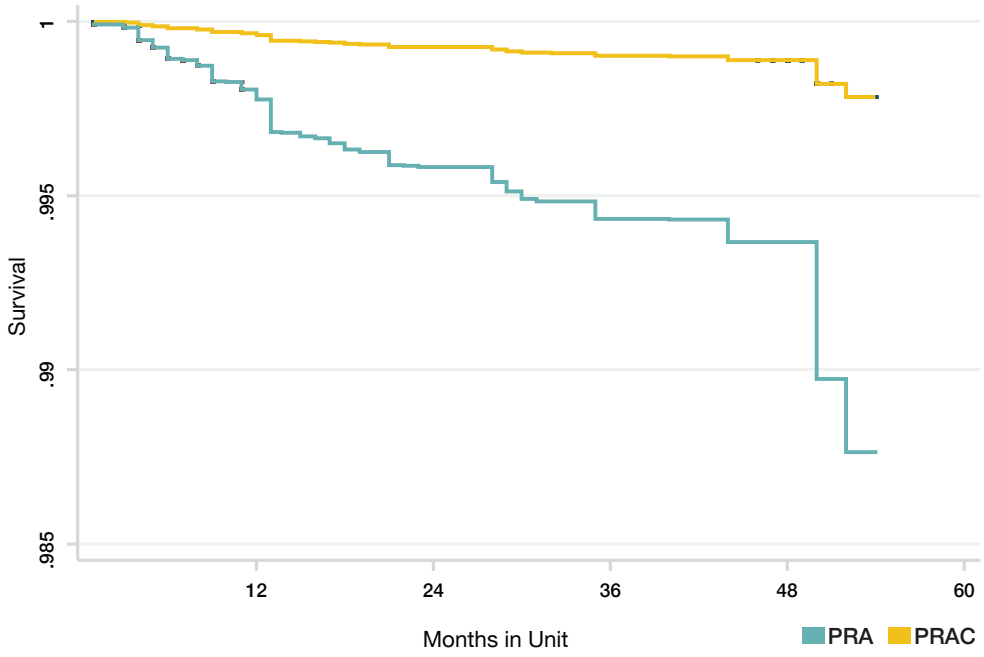
Exhibit B.3.6: Hazard Ratios for Reasons for Program Exits for PRA and PRAC Residents, 2013–2018

| Exit Definition | Hazard Ratio | Standard Error | P-value |
|---|---|---|---|
| Owner initiated for nonpayment of rent | 5.74 | 1.84 | 0.00 |
| Owner initiated—other | 0.99 | 0.24 | 0.95 |
| Tenant initiated | 0.50 | 0.09 | 0.00 |
| Death | 0.90 | 0.25 | 0.69 |

Source: Abt analysis of program exit data from TRACS for PRA and PRAC residents as of September 2018.

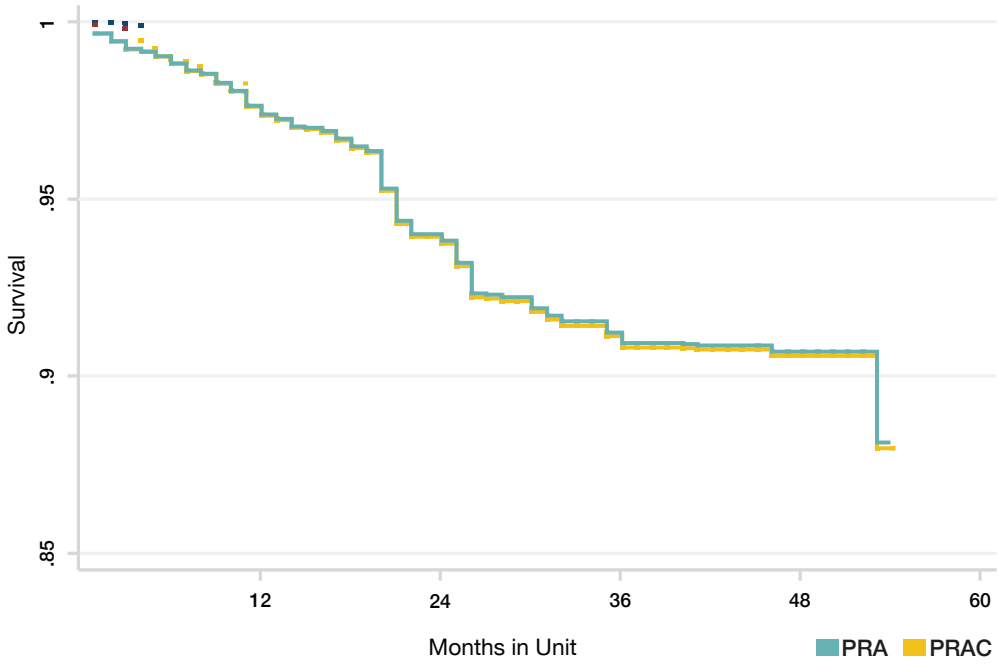
Exhibits B.3.7–B.3.10 show the hazard ratios for owner-initiated nonpayment of rent, tenant-initiated reasons, and due to death.

Exhibit B.3.7: Cox Hazard Ratio for Program Exits Due to Owner Initiated Nonpayment of Rent



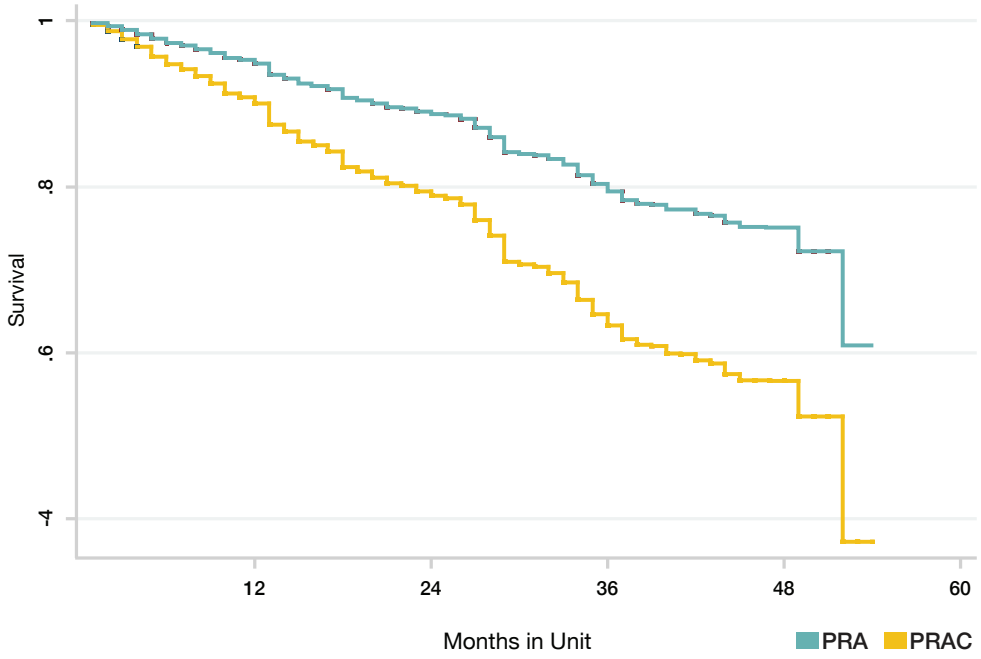

Source: Abt analysis of program exit data from TRACS for PRA and PRAC residents as of September 2018.

Exhibit B.3.8: Cox Hazard Ratio for Owner Initiated Reasons Other Than Nonpayment of Rent



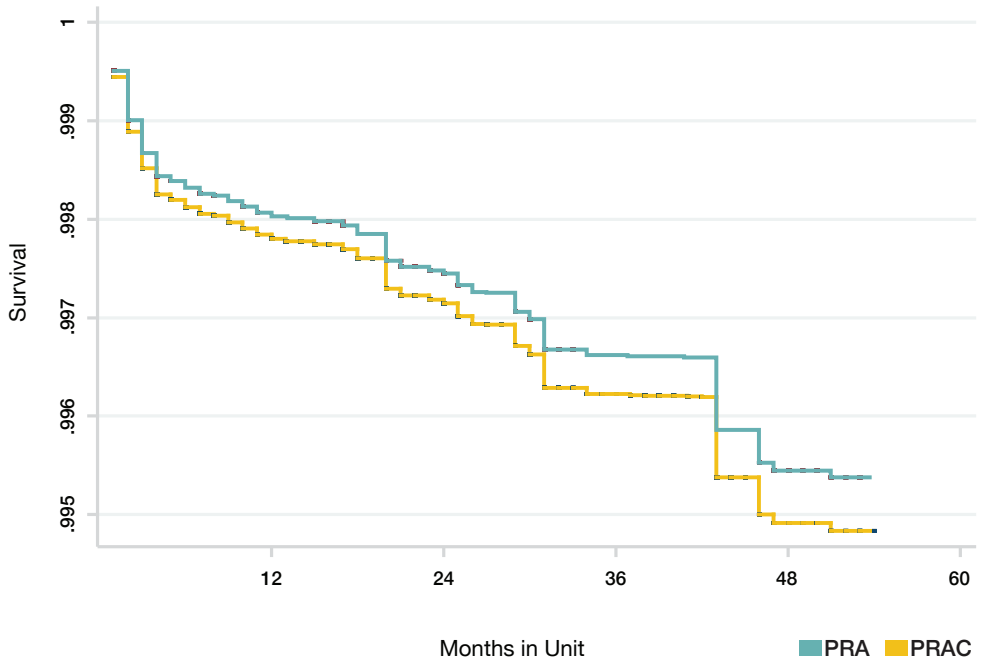

Source: Abt analysis of program exit data from TRACS for PRA and PRAC residents as of September 2018.

Exhibit B.3.9: Cox Hazard Ratio for Tenant Initiated Reasons




Source: Abt analysis of program exit data from TRACS for PRA and PRAC residents as of September 2018.

Exhibit B.3.10: Cox Hazard Ratio for Program Exits Due to Death




Source: Abt analysis of program exit data from TRACS for PRA and PRAC residents as of September 2018.

## B.3.5 Health Conditions and Healthcare Utilization Measures

This section describes how the study used 2015–2016 Medicaid data collected from state Medicaid agencies to measure chronic and potentially disabling conditions and healthcare utilization outcomes included in the impact analysis.

### Chronic and Potentially Disabling Conditions

In order to achieve unbiased comparisons, the analytic sample for the impact study needed to consist of PRA residents and individuals in the PRAC, NED, other HUD, and non-HUD groups who are similar in terms of existing diagnoses and disabilities. We used 2015 state Medicaid data to compare and match the study groups based on the prevalence of various types of chronic conditions and disabilities.

CMS defines a set of beneficiary-level flags for 27 common and chronic conditions based on validated criteria, as defined and identified by CMS using each beneficiaries' historical fee-for-service claims data.[84] They also use validated criteria to define and identify a set of flags for other chronic or potentially disabling conditions, including 9 mental health and tobacco use conditions, 15 developmental disorder and disability-related conditions, and 9 other chronic physical and behavioral health conditions. These flags were developed by CMS specifically to enhance the research of the Medicare-Medicaid dual-eligible population.

We identified Medicaid enrollees who had any of 27 chronic conditions or 33 other chronic or potentially disabling conditions using the CMS-defined algorithms for each condition and all diagnosis fields in the state Medicaid fee-for-service and managed care encounter data from 2015. We grouped the chronic and potentially disabling conditions into 19 categories, as shown in Exhibit B.3.11.

Exhibit B.3.11: Condensed Categories of Chronic and Potentially Disabling Conditions

| Category | Conditions |
|---|---|
| Cancer | Breast Cancer; Colorectal Cancer; Lung Cancer; Endometrial Cancer; Prostate Cancer |
| Cardiovascular | Acute Myocardial Infarction; Atrial Fibrillation; Chronic Heart Failure; Ischemic Heart Disease; Stroke |
| Developmental Disorders or Disabilities | Intellectual Disabilities and Related Conditions; Learning Disabilities; Autism Spectrum Disorders; ADHD and Other Conduct Disorders; Spina Bifida and Other Congenital Anomalies of the Nervous System; Cerebral Palsy; Cystic Fibrosis and Other Metabolic Developmental Disorders; Other Developmental Delays |
| Endocrine and Renal | Chronic Kidney Disease; Diabetes; Acquired Hypothyroidism |
| HIV/AIDS | Human Immunodeficiency Virus and/or Acquired Immunodeficiency Syndrome (HIV/AIDS) |
| Leukemia and Lymphomas | Leukemia and Lymphomas |
| Liver Conditions | Liver Disease, Cirrhosis, and Other Liver Conditions |
| Mental Health | Depression; Major Depression Affective Disorder; Anxiety Disorders; Bipolar Disorders; Personality Disorders; Schizophrenia; Schizophrenia and Other Psychotic Disorders; Post-Traumatic Stress Disorder |
| Mobility Impairments | Mobility Impairments |
| Musculoskeletal | Hip Fracture; Osteoporosis; Rheumatoid Arthritis |
| Neurological Disorders | Epilepsy; Spinal Cord Injury; Migraine and Other Chronic Headache; Multiple Sclerosis and Transverse Myelitis; Muscular Dystrophy; Traumatic Brain Injury and Nonpsychotic Mental Disorders due to Brain Damage; Alzheimer's Disease; Alzheimer's Disease and Related Disorders or Senile Dementia |
| Obesity | Obesity |
| Ophthalmic | Cataract; Glaucoma |
| Other Chronic Conditions | Anemia; Hyperlipidemia; Hypertension; Benign Prostatic Hyperplasia |
| Other Conditions | Fibromyalgia; Pressure Ulcers and Chronic Ulcers; Viral Hepatitis |
| Peripheral Vascular Disease (PVD) | Peripheral Vascular Disease |
| Pulmonary | Chronic Obstructive Pulmonary Disease; Asthma |
| Sensory Impairment | Deafness and Hearing Impairment; Blindness and Visual Impairment |
| Tobacco Use | Tobacco Use |

**Note: The ICD-9 and ICD-10 diagnosis codes used to define each condition are documented at https://www.ccwdata.org/web/guest/condition-categories.**

[84] https://www.ccwdata.org/web/guest/condition-categories

## Healthcare Utilization Outcome Measures

Exhibit B.3.12 describes the healthcare utilization measures that we used for the study. To calculate these measures, we used 2016 Medicaid data to examine PRA residents' healthcare utilization for those who moved in during 2016, and for individuals in the HUD comparison groups who moved into their units between 2013 and 2016.[85] We accounted for the number of months in 2016 that PRA residents were enrolled in Medicaid, after they moved into their PRA unit, by calculating individual utilization rates as the number of events per quarter (that is, three months) [86,87] If the PRA resident or individual in the comparison group moved into their unit in the middle of a month, we counted the healthcare services they received at any time during that month as services received after they moved into their unit. We calculated the same measures using the 2015 Medicaid data in order to control for past utilization in the PS-DR model. We also measured baseline utilization rates as the number of events per quarter to account for different lengths of Medicaid enrollment during 2015.

Exhibit B.3.12: Measures Describing Healthcare Utilization by Medicaid Enrollees Using Data Collected from States

| Measure | Description |
|---|---|
| Number of inpatient hospital admissions | The count of unique admissions, for any diagnosis, to an inpatient facility, excluding admissions to skilled nursing facilities, for inpatient rehabilitation, or for hospice. A unique admission and subsequent inpatient stay is defined as a set of one or more consecutive inpatient claims. If the patient is transferred to a different provider, this is counted as a single admission as long as the second admission occurs within one day of discharge from the previous provider. |
| Days admitted to an inpatient hospital | The total number of days in admitted to an inpatient facility, for any diagnosis, excluding admissions to skilled nursing facilities, for inpatient rehabilitation, or for hospice. |
| Number of 30-day readmissions to a hospital | This measure is a subset of the inpatient hospital admissions measure. The count of unique admissions, for any diagnosis, to an inpatient facility within 30 days of the discharge date of a previous inpatient admission, excluding admissions to skilled nursing facilities, for inpatient rehabilitation, or for hospice. |
| Number of inpatient hospital admissions for mental health conditions | This measure is a subset of the inpatient hospital admissions measure. The count of unique admissions to an inpatient facility with a principle diagnosis related to a mental condition, excluding admissions to skilled nursing facilities, for inpatient rehabilitation, or for hospice. Mental health diagnoses are defined as: ICD-10-CM in: (F, G442, R37, R480) but not in: (F1, F53, F64, F7, F84, F90, F91) or ICD-9-CM in: (2950 through 31699) but not in: (3025, 3026, 303, 304, 305, 310, 3120, 3121, 3122, 3124, 3128, 3129, 31381, 31382, 314). |
| Number of emergency department visits | The count of emergency department visits, for any diagnosis, regardless of whether this led to an inpatient admission. Two or more claims for an ED visit with the same date were counted as one ED visit. |
| Number of emergency department visits not resulting in inpatient admission | The count of emergency department visits that did not lead to an inpatient admission (for any diagnosis). Two or more claims for an ED visit with the same date were counted as one ED visit. |
| Days that emergency and non-emergency medical transportation were used | The count of days in a given month with at least one claim for medical transportation, regardless of whether it was or was not for an emergency. |
| Number of admissions for long-term inpatient care | The count of unique admissions to an inpatient facility that lasted longer than 28 consecutive days, for any reason except for hospice or substance abuse. A unique admission and subsequent inpatient stay is defined as a set of one or more consecutive inpatient claims. If the patient is transferred to a different provider, this is counted as a single admission as long as the second admission is on or within one day of discharge from the previous provider. |
| Days of long-term inpatient care | The total number of days in admitted to an inpatient facility, when the inpatient stay lasted longer than 28 consecutive days, and the person was admitted for any reason except for hospice or substance abuse. |

(cont)

[85] The earliest year that a PRA resident had moved into their unit was 2013 (some residents resided in their units before being assisted by PRA). Additionally, we also include individuals in the PRA and comparison groups who live in Minnesota and Washington and moved in during the first half of 2017 since they could be linked to post-occupancy data on utilization.

[86] For the non-HUD group, we examined the individuals' utilization in 2016 and accounted for the number of quarters they were continuously enrolled in Medicaid.

[87] The average number of months of follow-up in 2016 (and 2017 for Washington and Minnesota residents) for PRA residents was 6.8 months, 12.0 months for PRAC residents, 15.6 months for the NED group, 11.8 months for the other HUD group, and 9.4 months for the non-HUD group.

Exhibit B.3.12: Measures Describing Healthcare Utilization by Medicaid Enrollees Using Data Collected from States (cont)

| | |
|---|---|
| Any admission for long-term inpatient care | An indicator (yes/no) for whether the person was admitted to an inpatient facility for longer than 28 consecutive days, and for any reason except for hospice or substance abuse, while he or she was enrolled in Medicaid and during the measure period. |
| Any use of personal care attendant (PCA) services | An indicator for whether the person received PCA services while during the measure period. PCA services were defined using HCPCS (procedure) codes in: ("T1019","T1020","S5125","S5126"). |
| Any use of case management services | An indicator for whether the person received case management services during the measure period. Case management services were defined using HCPCS (procedure) codes in: ("T1016","T1017","T2022","T2023") |

**Note: The Clinical Classifications Software (CCS) for ICD-9-CM and ICD-10-CM is a diagnosis and procedure categorization scheme that can be employed in many types of projects analyzing data on diagnoses and procedures. ICD-9 and ICD-10 diagnosis and procedure codes are collapsed into a smaller number of clinically meaningful categories ICD-9: https://www.hcup-us.ahrq.gov/toolssoftware/ccs/ccs.jsp. ICD-10: https://www.hcup-us.ahrq.gov/toolssoftware/ccs10/ccs10.jsp.**

## B.3.6 Collecting Medicaid Administrative Data for the Non-HUD Comparison Group

From the state Medicaid agencies, we requested individual-level Medicaid FFS claims, managed care encounter, and enrollment data from the six study states for PRA and PRAC residents and residents of other HUD-assisted housing, as well as individuals not in HUD-assisted housing who have characteristics identified as predictive of PRA participation. The characteristics identified as predictive of PRA participation were identified using the data from ResDAC. We analyzed the pattern of diagnosis codes in the 2012–2013 Medicaid data and 2014–2015 Medicare data to identify clusters of characteristics that strongly predict participation in the PRA.

We took the following steps to identify these clusters:

1. ICD-9 diagnosis codes, from every diagnosis field on the inpatient and outpatient FFS claims and managed care encounter records in the 2012–2013 Medicaid administrative data, were collapsed into more clinically meaningful categories using the U.S. Agency for Healthcare Research and Quality's Clinical Classifications Software (CCS).[88] We did this separately using ICD-9 and ICD-10 diagnosis codes on the inpatient and outpatient FFS claims in the 2014–2015 Medicare administrative data.
2. For every Medicaid beneficiary, we created indicators for each CCS category equal to 1 if the beneficiary ever had an inpatient or outpatient claim in 2012–2013 with a diagnosis falling in a given CCS category, and 0 otherwise. We did the same for every Medicare beneficiary in the 2014–2015 Medicare claims data.
3. For Medicaid and Medicare beneficiaries in all six study states, we calculated the prevalence of each CCS category in the PRA sample and the non-HUD sample, respectively. We also calculated the prevalence of CCS categories in the PRA and non-HUD samples of Medicaid and Medicare beneficiaries separately for each study state.
4. Using the six-state and single-state samples and CCS indicators, we identified 20 to 30 CCS categories that were the most predictive of PRA assistance relative to the non-HUD sample. To do this, we implemented the Friedman, Hastie, and Tibshirani (2010) coordinate descent algorithm for elastic net regression in Stata 14 using the module, *elasticregress*.
5. We performed Step 4 using both CCS diagnosis categories and any available procedure codes (for example, ICD-9, Current Procedures Terminology (CPT) codes) identified on inpatient and outpatient claims and encounter records in the Medicaid administrative data that was procured directly from the states and linked to residents of PRA, PRAC, and other HUD-assisted housing.
6. For each state, we deemed CCS diagnosis categories to be strongly predictive if the following criteria were met:
    - The CCS category was not related to acute diagnoses that are uninformative regarding a potentially underlying condition (for example, tonsillitis, influenza), minor injuries (for example, sprains, superficial injuries), or routine care (for example, immunizations, screenings, examinations, after-surgery care); AND

[88] The Clinical Classifications Software (CCS) for ICD-9-CM is a diagnosis and procedure categorization scheme that can be employed in many types of projects analyzing data on diagnoses and procedures. CCS is based on the International Classification of Diseases, 9th Revision, Clinical Modification (ICD-9-CM), and a uniform and standardized coding system. The ICD-9-CM's multitude of codes–over 14,000 diagnosis codes and 3,900 procedure codes–are collapsed into a smaller number of clinically meaningful categories that are sometimes more useful for presenting descriptive statistics than are individual ICD-9-CM codes (https://www.hcup-us.ahrq.gov/toolssoftware/ccs/ccs.jsp). CCS has also been created for ICD-10 (https://www.hcup-us.ahrq.gov/toolssoftware/ccs10/ccs10.jsp).

- The CCS category was the most predictive of PRA in *both* of the six-state samples of the Medicaid and Medicare administrative data; OR
- There was greater than one standard deviation difference in the prevalence of the CCS category between the PRA group and the non-HUD group in *both* of the six-state samples of the Medicaid and Medicare administrative data; OR
- The CCS category was prevalent in at least 20 percent of PRA residents in the single-state sample of Medicaid administrative data; AND
- The category was the most predictive of PRA in the single-state sample of Medicaid administrative data; OR
- There was greater than one standard deviation difference in the prevalence of the CCS category between the PRA group and the non-HUD group in the single-state sample of Medicaid administrative data.

We deem medical procedures to be strongly predictive if they were not uninformative (for example, emergency room visit) or routine procedures (for example, radiology) AND they were predictive of PRA relative to residents of PRAC and other HUD-assisted housing that were linked to the Medicaid administrative data that was procured directly from the state.

Exhibit B.3.13 presents the CCS diagnosis categories that meet the predictive criteria. The first row lists 13 CCS diagnosis categories that meet the predictive criteria based on comparisons of PRA residents to the non-HUD group in the six-state samples of the 2012–2013 Medicaid and 2014–2015 Medicare administrative data. The other CCS diagnosis categories that meet the predictive criteria based on comparisons of PRA residents and the non-HUD group in each of the single-states samples of the 2012–2013 Medicaid and 2014–2015 Medicare administrative data are listed in the next six rows.

Exhibit B.3.13: CCS Diagnosis Categories that Meet the Predictive Criteria

| Sample | Clinical Classification System (CCS) Diagnosis Categories |
|---|---|
| Medicare and Medicaid: All six study states (13 categories) | • 95: Other nervous system disorders<br>• 155: Other gastrointestinal disorders<br>• 204: Other non-traumatic joint disorders<br>• 205: Spondylosis, intervertebral disc disorders, or other back problems<br>• 211: Other connective tissue disease<br>• 251: Abdominal pain<br>• 651: Anxiety disorders<br>• 652: Attention-deficit, conduct, and disruptive behavior disorders<br>• 657: Mood disorders<br>• 659: Schizophrenia and other psychotic disorders<br>• 661: Substance-related disorders<br>• 662: Suicide and intentional self-inflicted injury<br>• 663: Screening and history of mental health and substance abuse codes |
| California Medicaid (8 categories) | • 59: Deficiency and other anemia<br>• 89: Blindness and vision effects<br>• 106: Cardiac dysrhythmias<br>• 117: Other circulatory disease<br>• 133: Other lower respiratory disease<br>• 159: Urinary tract infections<br>• 255: Administrative/social admission<br>• 254: Rehabilitation care; fitting of prostheses; and adjustment of devices |

(cont)

Exhibit B.3.13: CCS Diagnosis Categories that Meet the Predictive Criteria (cont)

| Sample | Clinical Classification System (CCS) Diagnosis Categories |
|---|---|
| Delaware Medicaid (2 categories) | • 50: Diabetes mellitus with complications<br>• 133: Other lower respiratory disease |
| Louisiana Medicaid (9 categories) | • 7: Viral infection<br>• 83: Epilepsy, convulsions<br>• 89: Blindness and vision effects<br>• 125: Acute Bronchitis<br>• 126: Other upper respiratory infections<br>• 136: Disorders of teeth and jaw<br>• 159: Urinary tract infections<br>• 654: Developmental disorders<br>• 670: Miscellaneous mental health disorders |
| Maryland Medicaid (13 categories) | • 4: Mycoses<br>• 7: Viral infection<br>• 50: Diabetes mellitus with complications<br>• 52: Nutritional deficiencies<br>• 53: Disorders of lipid metabolism<br>• 58: Other nutritional; endocrine; and metabolic disorders<br>• 59: Deficiency and other anemia<br>• 117: Other circulatory disease<br>• 133: Other lower respiratory disease<br>• 159: Urinary Tract Infections<br>• 163: Genitourinary symptoms and ill-defined conditions<br>• 203: Osteoarthritis<br>• 255: Administrative/social admission |
| Minnesota Medicaid (5 categories) | • 117: Other circulatory disease<br>• 133: Other lower respiratory disease<br>• 255: Administrative/social admission<br>• 650: Adjustment disorders<br>• 660: Alcohol-related disorders |
| Washington Medicaid (9 categories) | • 53: Disorders of lipid metabolism<br>• 58: Other nutritional; endocrine; and metabolic disorders<br>• 89: Blindness and vision effects<br>• 106: Cardiac dysrhythmias<br>• 126: Other upper respiratory infections<br>• 127: Chronic obstructive pulmonary disease and bronchiectasis<br>• 133: Other lower respiratory disease<br>• 159: Urinary Tract Infections<br>• 163: Genitourinary symptoms and ill-defined conditions |

**Note: The Clinical Classifications Software (CCS) for ICD-9-CM and ICD-10-CM is a diagnosis and procedure categorization scheme that can be employed in many types of projects analyzing data on diagnoses and procedures. ICD-9 and ICD-10 diagnosis and procedure codes are collapsed into a smaller number of clinically meaningful categories ICD-9: https://www.hcup-us.ahrq.gov/toolssoftware/ccs/ccs.jsp. ICD-10: https://www.hcup-us.ahrq.gov/toolssoftware/ccs10/ccs10.jsp.**

## B.4 Approach to Economic Study

The description of the approach to the economic study includes an overview of the cost structures of the PRA and comparison programs, catalogs data sources used for the cost and cost allocation analyses, and details other aspects of the economic study methods.

### B.4.1 Cost Structures of HUD Programs Serving Adults with Disabilities

Cost structures of the PRA and PRAC, NED and other HUD programs are the result of the programs requirements and implementation infrastructure. While the PRA program does not directly fund healthcare and disability-related services, housing quality and location can affect both health and access to healthcare and supportive services. Conversely, access to healthcare and supportive services may enable individuals to live successfully in the community. This interdependency motivates the requirement that PRA program grantees (state agencies that administer housing programs) execute an inter-agency partnership agreement with the state agency that administers Medicaid.

The linkage also implies that costs associated with healthcare and disability-related services may differ across PRA, PRAC, and the other programs and should be considered by policymakers. Although the PRA and PRAC programs each have strategies to connect people to services in ways that are expected to reduce healthcare costs, costs of other services and supports may increase. For example, the 811 PRA program might shift costs from one domain (for example, healthcare and disability support services) to another (for example, housing or transportation). In addition, the different administrative structure for the PRA program relative to the PRAC, NED, and other HUD programs could result in different administrative costs per assisted participant.

### B.4.2 Cost Analysis Data Sources

Exhibit B.4.1 details the data sources we use for each element of the cost and cost allocation analyses. Data sources are organized into each of the four cost areas: housing rental subsidies, housing capital subsidies, healthcare and supportive services, and program administration.

Exhibit B.4.1: Cost Analysis Data Sources

| | PRA | PRAC | NED and other HUD |
|---|---|---|---|
| **Cost element** | **Data sources** | **Data sources** | **Data sources** |
| **Housing rental subsidies** | | | |
| Monthly rental subsidies | • Rent amounts in TRACS data<br>• Interviews and quarterly report information on vacancy | • Rent amounts in TRACS data | • Rent amounts in PIC and TRACs data |
| Reference comparison for subsidy amounts | • Projected average rental subsidy: Grantee S811 quarterly reports<br>• Contract rent: TRACS data<br>• FMR/SAFMR: public data on HUD's website | • Not Applicable | • Not Applicable |
| **Housing Capital Subsidies** | | | |
| Capital subsidy detail | • LIHTC cost certifications and applications from state housing agencies or public reporting | • Grant details from iREMS database<br>• Review of sample of PRAC grant applications (29 properties)<br>• Annual Financial Statements from OPIIS database | • *Not included in analysis* |

(cont)

Exhibit B.4.1: Cost Analysis Data Sources (cont)

| | | | |
|---|---|---|---|
| **Program Implementation and Administrative Costs** | | | |
| Grantee and partner state agencies | • Interviews with senior program and finance staff<br>• Program documents (applications, quarterly budgets, other reporting) | • Not Available/Applicable after review of the following:<br>▫ Annual Financial Statements from OPIIS database<br>▫ Websites, 990 tax forms, and other available documents for a sample of grantee organizations | • Estimates of PHA costs from Turnham et al (2015) |
| HUD (headquarters and field offices) | • Interviews and documents from HUD | • Interviews & documents from HUD | • Interviews & documents from HUD |
| **Healthcare and Supportive Services Costs** | | | |
| Healthcare utilization<br>• Inpatient admissions<br>• Emergency room visits<br>• Medical transportation<br>• Long-term inpatient care | • States' Medicaid claims/ administrative data | • States' Medicaid claims/ administrative data | • States' Medicaid claims/administrative data |
| Supportive services utilization | • Total HCBS costs: Medicare Part A and B<br>• Case management use: States' Medicaid claims/administrative data | • Total HCBS costs: Medicare Part A and B | • Total HCBS costs: Medicare Part A and Part B claims |

## B.4.3 Cost Allocation Analyses

The costs and cost allocation analyses develop per-resident, monthly, or annual cost estimates in four areas: housing rental subsidies, housing capital subsidies, healthcare and supportive services, and program administration. We then summed annualize costs for housing and administration to report a total housing program cost.

To make the most of the available information on both rental and capital subsidies, we use multiple analysis samples in our housing cost analyses. Exhibit B.4.2 provides sample sizes of individuals and properties for each of the rental and capital subsidy analysis samples.

Exhibit B.4.2: Housing Subsidy Analysis Samples

| Analysis Sample | Number of Individuals | Number of Properties |
|---|---|---|
| **Rental Subsidies** | | |
| PRA rental subsidy | 540 | 58 |
| PRAC rental subsidy | 3,191 | 451 |
| NED rental subsidy | 8,859 | NA |
| Other HUD rental subsidy | 145,992 | NA |
| **Data** | | |
| PRA capital subsidies | 408 | 41 |
| PRAC Sample 1: capital grant only | 3,170 | 440 |
| PRAC Sample 2: all sources of capital subsidy | 247 | 29 |

**NA = not applicable.**

**Note: Research and data collection timelines required us to fix the sample for which we collected PRA capital subsidy data at an earlier time than the entire rental sample. At that time, we sought information for 43 properties that include 420 of the 540 PRA residents in the final analysis sample.**

## Housing Rental Subsidies

Ongoing rental subsidies are paid monthly to property owners in the PRA program and each of the programs serving our comparison groups. We calculate average rental subsidies directly from HUD administrative data for all individuals in PRA, PRAC, NED, and other HUD programs (public housing, housing choice voucher, and multifamily housing programs). Rental subsidy amounts for the PRA and PRAC programs are included in TRACS data, while amounts for NED and other HUD programs are from IMS/PIC data.

Because we observe rental subsidy costs directly at the individual level using HUD administrative data, computing average per-individual rental subsidy costs is straightforward. We average observed subsidy amounts for all individuals receiving assistance as of March 2018. Rental subsidy detail is available for almost all individuals in our analysis sample. We compute the averages using analysis weights derived using the same propensity-score matching approach used in the impact analysis. For the cost allocation analysis, all rental subsidies we observe are borne by HUD.[89]

## Housing Capital Subsidies

Estimating the annualized, per-unit value of capital subsidies is a more involved undertaking. Complicating this estimation is the methodological challenge of apportioning a single development subsidy over many units and for the decades over which the property will provide below-market rents to eligible residents. Estimating the value of capital subsidies for the properties in our analysis is also complicated by data availability. There is no central repository of capital subsidies provided to low-income housing developments, necessitating primary data collection effort. For this reason, capital subsidy analysis for properties housing NED and other HUD-assisted individuals in our comparison groups is beyond the scope of this study.

### *PRA Capital Subsidies*

The study team collected detail on capital subsidies for developments that had received LIHTC capital funding for properties with any occupied PRA units in them as of the summer of 2017. As reported in Exhibit B.4.2, we found capital subsidy information for 41 of the 43 developments that had any occupied PRA units as of our cutoff date. We created a list of such properties from properties identified by grantees that we subsequently matched to HUD administrative data. We selected properties that had occupied units as of March 2018. The 41 properties include 97 percent of individuals receiving assistance through PRA in these 43 developments. For these properties, we acquired cost certifications directly from state agencies where possible, and from websites with information on cost certifications or LIHTC applications where details were not available from the relevant administering agency.[90]

### *PRAC Capital Subsidies*

Identifying capital development subsidies provided directly by the PRAC program is straightforward. The PRAC program capital grant itself is recorded in iREMS. As shown in Exhibit B.4.2, our analysis includes a sample of 3,170 individuals in 440 properties for which we have both PRAC rental subsidy and PRAC capital grant information. PRAC properties may also receive additional sources of capital funding (PRAC Sample 1). To assist with this evaluation, HUD staff also located digitized archived images of PRAC grantee applications that included detail on all capital sources for 29 PRAC properties (PRAC Sample 2). PRAC Sample 2 is a subset of properties from a targeted list of PRAC properties provided to HUD that, based on our propensity score model, had a high incidence of residents that were similar to PRA residents. These 29 properties assist 247 PRAC residents.

Complete capital subsidy data is only available for a limited share of our PRAC comparison sample, while incomplete capital subsidy detail is available for almost all individuals in our PRAC comparison sample. In each case, we provide subsidy cost estimates for the largest sample of individuals for which data is available.

### *Estimating Per-Unit Annual Capital Subsidy Costs for PRA and PRAC*

Capital subsidies for PRA and PRAC are awarded for an entire development when it is built (or substantially remodeled). To convert this initial amount into a per-unit, annual cost, the value of the initial subsidy must be both apportioned among units that vary in size and amortized over the period for which the property provides low-income rental assistance.

We make necessary and standard assumptions to estimate per-unit annualized costs. The capital subsidy is annualized over the time period for which the respective

[89] State and local governments also administer rental assistance programs. These programs typically serve individuals that are eligible for federal subsidies but do not receive them because the federal program is already fully subscribed in their area. We are not aware of any state and local programs that provide additional assistance to recipients also receiving HUD-funded assistance.

[90] It is possible that the two properties for which we did not find any information received LIHTC or other federal, state, or local subsidies that we did not discover in our data collection efforts. We searched HUD administrative data and the internet but did not find any additional information for these properties. We dropped them from our analysis rather than assume they receive no subsidies.

capital subsidy program requires affordability restrictions (for example, 30 years for LIHTC funding and 40 years for PRAC grants). We value the entire amount of grants and forgivable loans as a subsidy and estimate the value of assistance provided as low-interest, but repayable, loans as the implied lifetime savings relative to a market-rate loan provided by the lower rate. We use a 3.5-percent discount rate to calculate net present values and to amortize these values to annual amounts over the period that the property provides below-market rents to eligible residents. We calculate the net present value at the time of development of the subsidy provided by low-interest loans over the life of the loan and add to any non-repayable lump-sum subsidies to determine the net present value of all subsidies at the time of development. As a robustness check, we considered 2-percent and 6-percent discount rates, which did not qualitatively alter our conclusions. To allocate the total development subsidy over units that vary in bedroom size, we created an adjustment factor based on the ratio of FMRs for each bedroom size.[91]

For the cost allocation analysis, we identified whether a given capital subsidy was funded by HUD, the LIHTC program, a state or local affordable housing program, or by some other federal program or private philanthropic source. After calculating average annual rental subsidies (monthly amounts multiplied by 12) and estimating the annualized value of capital subsidies, we added the amounts together to arrive at our total cost of housing subsidies for the PRA and PRAC comparison groups. The sample for these sums is necessarily limited to the individuals for which we have both rental and capital subsidy detail.

### Costs of Healthcare and Disability Services Utilization

Our analysis of the cost of healthcare and disability services utilization primarily builds off the analysis of state Medicaid data from the impact analysis, with additional contextual information about the funding and availability of services from our qualitative data collection and supporting research.

We compared cost estimates of the healthcare and disability service utilization data for PRA and our comparison groups. Because of data limitations, we do not have complete data on costs associated with any healthcare or disability-related services used. Rather, we focused on measures that were available and likely to be affected by housing quality and location. The measures that we calculated and reported are listed in Exhibit B.3.2. Each measure incorporates a measure from the impact analysis of healthcare utilization and a unit cost measure developed from the available data.

We estimated the difference in costs of all disability services received through HCBS between PRA and each comparison program by multiplying the impact estimate for use of PCA services by the average total cost of HCBS claims observed in 2011 ResDAC data, adjusted for inflation.

For our healthcare utilization quantity measure, we used the average fee-for-service claim dollar amount in each state for the respective unit of utilization. This amount is only observable for the subset of individuals receiving healthcare in a fee-for-service model, but it is our best available estimate of the cost of the unit of utilization.

The average state fee-for-service costs represent the average costs for PRA residents and individuals in the comparison groups enrolled in Medicaid in 2015 or 2016, and either matched to individuals in the state Medicaid agencies database of enrollees, or included in our sample of individuals in the non-HUD comparison group. Fee-for-service costs for similar services (for example, inpatient days) can vary substantially according to diagnoses, patient acuity, and treatments provided. Furthermore, only four of the six states provided information on payments to the provider from managed care organizations. Therefore, we were limited to estimating average fee-for-service costs for each service in each state.

The proportion of Medicaid enrollees in fee-for-service or managed care plans varies across states. There is also variation in the types of coverage and levels of payments for specific services; the types of waivers offered to disabled individuals; the extent of services covered under those waivers; the amount of payments covered for dual-enrollees; and various other details of Medicaid payment policies determined by state Medicaid agencies. As a result, the average costs estimated for each service may not reflect the true population averages across the six states and could be skewed due to chance variation in the use of healthcare services by small samples of individuals in each state, during a 2-year period.

[91] Rather than multiply the total subsidy amount by $\frac{1}{N_{units}}$, we multiply by $\frac{FMR_{beds}}{FMR_0*N_0+FMR_1*N_1+\cdots+FMR_4*N_4}$, which is the FMR-bedroom size weighted rental revenue share anticipated by a unit with beds=0,1 ,2,3 or 4 bedrooms given there are $N_{beds}$ units of each bedroom size in the property and the bedroom-size FMR is $FMR_{beds}$

Exhibit B.4.3: Healthcare Utilization and HCBS Cost Analysis Measures

| Measure | Impact Quality Measure | Unit Cost Measure | Total Per-Individual Annual Cost Estimate |
|---|---|---|---|
| **Disability-related services through HCBS(PRA vs PRAC difference only)** | Impact estimate for use of personal care attendant (PCA) services | Average annual total 2011 HCBS Claims in ResDAC | % difference in PCA use Average annual total 2011 HCBS Claims in ResDAC |
| **Healthcare utilization** | Emergency room visits per quarter*4 | Average observed FFS emergency room visit cost by state | Visits*Average cost |
| | Inpatient days per quarter*4 | Average observed FFS inpatient day cost by state | Days*Average cost |
| | Long-term care days per quarter*4 | Average observed FFS long-term care day cost by state | Days*Average cost |
| | Transport trips per quarter*4 | Average observed FFS transport trip cost by state | Trip*Average cost |

**Notes: We have no direct measure of total costs of disability-related services use or costs of PCA use after entry into PRA. We impute a PRA vs PRAC differential cost in total disability-related services use by multiplying the percentage difference in PCA use we measure in the impact analysis by the total average annual cost of HCBS use we observe in 2011 ResDAC data.**

To supplement the quantitative data, we reviewed qualitative data to assess the potential for healthcare and services utilization that is not captured by Medicaid data. We reviewed the variety of data we collected for the study through the lens of possible costs of healthcare and service utilization by PRA residents that was not ultimately funded by Medicare and Medicaid (and thus visible in our prior analysis). This included reviewing notes from our interviews with service providers, grantees and health agency partners, and property owners, and reviewing responses to relevant questions from our resident survey. We also scanned PRA rental agreement contracts and grantee's applications and partnership agreements for clues of any such services.

For the PRAC population, we similarly noted responses to relevant resident survey questions and reviewed any relevant administrative interviews (that is, HUD field office interviews). In addition, we conducted a review of available public information around 15 PRAC properties that housed a total of 170 residents, including 21 of the individuals that we surveyed. For these properties, we reviewed the sponsoring organization's website (if any) and 501c(3) tax filings.

### Costs of Program Administration

We estimated average, per-individual annual costs of program administration for the PRA program and drew comparisons to estimates for PRAC and NED and other HUD programs. Our estimates of administrative costs for the PRA program come from data collected from PRA program grantees and their state agency partners through a written cost and effort survey and from consultation with HUD staff. Costs for the PRAC programs come from consultation with HUD staff, and from review of PRAC grantee annual financial report data and publicly available information for a limited number of properties. (We did not find information in these resources that informed our administrative cost estimates.) Our estimates for program administration costs for NED and other HUD programs are based on prior research around administrative costs for the PHAs that administer these programs and in consultation with experts that conducted this prior research (Turnham et al., 2015).

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