Regional Partnership Grants Cross-Site Evaluation and Evaluation-Related Technical Assistance

Regional Partnership Grants to Increase the Well-Being of, and to Improve the Permanency Outcomes for, Children Affected by Substance Abuse:

Eighth Report to Congress

U.S. Department of Health and Human Services
Administration for Children and Families
Administration on Children, Youth and Families
Children's Bureau

ADMINISTRATION FOR CHILDREN & FAMILIES

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RPG Regional Partnership Grants

Mathematica
Progress Together

Children's Bureau

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EXECUTIVE SUMMARY

Introduction

Recognizing that parental substance use is a key factor underlying the abuse or neglect of many children, Congress passed the Child and Family Services Improvement Act of 2006 (Pub. L. 109-288). The legislation amended section 437 of the Social Security Act (42 U.S.C. 629g[f]) to authorize the Children's Bureau (CB) in the Administration on Children, Youth and Families (ACYF) —part of the Administration for Children and Families (ACF) in the U.S. Department of Health and Human Services (HHS)—to fund discretionary grants to improve safety, well-being, and permanency outcomes for children at risk of or in out-of-home placement because of their caregiver's substance use.

In response to the legislation, in 2007 HHS launched the Regional Partnership Grants (RPG) program. Reauthorized in 2011 and again by the Bipartisan Budget Act of 2018 (Pub. L. 115-123), these competitive grants are designed to support partnerships between child welfare agencies, substance use treatment organizations, and other social service systems. Since 2007, HHS has made awards to 6 cohorts of grantees (referred to in this report as RPG1–RPG6) that have implemented 109 RPG projects. This report focuses on RPG4, RPG5, and RPG6, which included 35 projects that were active in 2022:

- RPG4: This cohort included 17 projects in 17 states, funded from 2017 to 2022. Fifteen of the grants were awarded through the general RPG funding opportunity announcement, and two were awarded through a funding opportunity announcement for organizations that offer RPG services to American Indian or Alaska Native (AIAN) communities. The lead organizations for most grants were behavioral health services providers, with family support providers the second most common type of organization. Seven of the 17 grantees had participated in earlier RPG rounds.
- RPG5: In 2018, HHS funded 10 RPG projects in 8 states. The original period of performance was three years, but midway through the initial grant period, HHS offered two-year extensions with additional funds (through 2023). Nine of the 10 awardees applied for and received this extension. Half of the projects are led by a previous or current RPG grant recipient, including two that held ongoing RPG4 grants. Most lead organizations were behavioral health service providers.
- RPG6: HHS funded eight projects in eight states starting in 2019 and lasting until 2024. Five of the eight awardees had previously received a grant, including two that held RPG4 awards and one that had received both RPG4 and RPG5 awards. As with the RPG4 and RPG5 cohorts, behavioral health service providers were the single most common type of grantee agency.

To help assess whether the RPG program operates as intended and meets its desired goals, Congress requires HHS to define and collect data on performance measures from the lead agency for each grant and evaluate the services and activities that are provided with RPG funds.

To evaluate the overall program and to satisfy the legislative mandates, HHS contracted with Mathematica and its partner, WRMA Inc., to conduct a national RPG cross-site evaluation.

This report summarizes findings to date from the cross-site evaluations for RPG4, RPG5, and RPG6.[1] Because the cohorts were in different stages of their grants, this report includes different types and levels of information about them. Most of the report focuses on RPG4, which ended in September 2022.[2] The report includes interim information for RPG5 and RPG6.

Characteristics of enrolled families (RPG4)

RPG4 projects had to: (1) define the characteristics of families they intended to serve; (2) identify and work with referral sources to find the families; and (3) enroll families in services.

Focal populations

Although all RPG projects are charged with serving families that are at risk of or involved with child welfare because of a caregiver's substance use, each project defined the segment of that focal population that it intended to serve. The projects based these definitions on the needs of their communities and the people that would benefit from the planned services. Fifteen projects focused on families with an active child welfare case, and six focused on families that were at risk of child welfare involvement.

Referral sources

RPG4 projects used several referral sources. More than three-quarters of families were referred to the projects by partner organizations (77 percent) rather than the grantee. The most common referral sources for families enrolled in RPG4 projects were a child welfare agency (51 percent) or a substance use treatment provider (19 percent).

Enrollment results

During the 3 years of enrollment, the RPG4 projects enrolled 1,108 families (1,301 adults and 1,769 children), including 176 children in utero at the time of their mother's enrollment.[3] Eleven of the 17 RPG4 projects reached less than 80 percent of their enrollment goal[4]; 4 projects enrolled enough families to meet at least 80 percent of their enrollment goal; and 2 projects exceeded their goal.

[1] The time span covered by the data differs by cohort and data source. For RPG4, data coverage is about three years, from March 2019 through March 2022, for most data sources. For RPG5 and RPG6 projects, some data were collected through November 2021, whereas other data sources extended through April 2022.

[2] Some grantees requested and received no-cost extensions.

[3] Per research literature in this area, children in utero are understood to be subject to the services received by the adult, particularly medications for opioid use disorder (MOUD), which is a common treatment for pregnant women in RPG projects (Kraft 2018).

[4] Many RPG4 projects began enrollment before the start of the cross-site evaluation and continued beyond the end of cross-site data collection. As a result, projects reported higher enrollment numbers than the number of families with cross-site data.

Key characteristics of adult participants enrolled in RPG4 projects include:

- Across RPG4 projects, most adult participants were: women (83 percent); between the ages of 25 and 34 (52 percent); and were never married at the time of enrollment (58 percent). More than three-quarters (78 percent) of the adult participants identified as White and non-Hispanic.
- Only about one-third of the adults (34 percent) were employed either full or part time or were self-employed. Two-thirds of the adults (66 percent) were not working for pay.
- More than one-third of enrolled adults had drug or alcohol severity scores that suggested high severity of use. More than one-third (37 percent) of adults in RPG4 had been in publicly funded substance use treatment in the year before they enrolled in RPG4.
- About 30 percent of adults had severe depressive symptoms as measured by the Center for Epidemiologic Studies Depression Scale.
- When asked to rate their attitudes about parenting and child-rearing, adults enrolled in RPG4 scored above the national mean in all five constructs reflecting more negative attitudes (such as inappropriate expectations and lack of empathy for their child).

Key characteristics of children at enrollment in RPG4 include:

- More than half of the children (53 percent) were age 4 or younger. The average age was five years old. About 69 percent of the children were White and non-Hispanic; 10 percent were AIAN and non-Hispanic; 5 percent were Black and non-Hispanic; and 7 percent were multiracial and non-Hispanic.
- More than three-quarters of children (79 percent) were receiving assistance from Medicaid, the nation's public health insurance program for people with low incomes.
- More than half of the children (57 percent) were living with at least one biological parent, which meant they lived with a biological mother only, a biological father only, both biological parents, or a biological parent and another relative or adult. About 24 percent of the children lived with a relative other than a biological parent, and 13 percent lived with a nonrelative foster parent only.
- Most children (57 percent) enrolled in RPG4 were involved with the child welfare system in the year before they entered RPG4. This includes the 24 percent of children who had been removed from their homes. Two-thirds (65 percent) of children had been involved in the child welfare system during their lifetime.
- Compared with a national sample of children, focal children[5] in RPG4 had more emotional and behavioral problems and a higher total amount of problem behaviors. (Total problems are a combination of emotional, behavioral, and other problems).[6]

[5] To limit the burden associated with data collection, the project teams collected data for the child well-being measures on a single child in each family, who is referred to as the focal child.

[6] The terms "emotional problems" and "behavioral problems" are taken directly from the names of the scales in the standardized instrument used to measure child outcomes (Achenbach & Rescorla, 2000, 2001).

- However, at enrollment in RPG4, focal children scored better on sensory processing (being over- or under-responsive to stimuli) than a national sample of children did.

Services received by families (RPG4)

Because each project designed its own set of services, families that enrolled in RPG4 projects participated in different types and amounts of services.[7]

- Of the 1,003 families enrolled in RPG4 projects, 947 families (94 percent) attended at least 1 service encounter, and 916 families (91 percent) attended more than 1 service encounter.
- Most services (90 percent) delivered to RPG4 families were primary services, which delivered the main content of each project. Most service encounters were either: (1) case management or service coordination; or (2) therapy or counseling.
- All but one RPG4 project used program models (that is, curricula or strategies) to guide some services. Only a few models were used by more than one or two projects. These included the Nurturing Parenting Programs (six projects), Motivational Interviewing (four projects), and Cognitive Behavioral Therapy (three projects).
- On average, families that received services participated in them for 7 months (28 weeks). During this time, they attended an average of 44 hours of services in 44 service encounters.
- Most projects provided services focused only on adults. Adults attended 96 percent of all service encounters, almost always without a child present. Fourteen percent of all service encounters were attended by children with an adult, and 5 percent of all service encounters were attended by children without an adult.

Partnerships (RPG4 and RPG5)

Collaboration is a key goal of the RPG program's efforts to support the needs of families. In fall 2021, the cross-site evaluation team administered a partnership survey to a representative from each organization that was a part of the RPG4 and RPG5 projects. At least one organization from 16 of the 17 RPG4 projects and at least one from all 10 RPG5 projects responded to the survey.

The findings from the partnership survey suggest that the connectedness and integration of RPG4 and RPG5 partnerships varied. All projects achieved some aspects of a shared common vision, including a shared purpose, goals, and resources. Some projects were able to further connect with partners to align their operational processes by integrating some communications or systems. Finally, a few projects achieved integrated service provision across the partnerships, including information sharing and coordinated activities such as screening and assessment.

[7] Two of the 17 RPG4 projects did not submit usable service data to the cross-site evaluation for any of their families. Therefore, these analyses do not represent the experiences of the families enrolled in those projects.

Collaboration between child welfare agencies and substance use treatment providers (RPG4 and RPG5)

Given the importance of collaboration between child welfare agencies and substance use treatment providers to RPG projects, the cross-site evaluation conducted site visits to examine how these organizations worked together to achieve the goals of RPG.

In most RPG4 and RPG5 projects, child welfare agencies and substance use treatment providers formally partnered to support families, as the RPG program intended. Among these project teams, the most common joint activities were referring families and holding ongoing interagency case consultations. The degree to which child welfare agencies and substance use treatment providers collaborated on these activities varied from occasional communication to structured, frequent, and routine information sharing. Where there was minimal collaboration (or none), usually the projects aimed to support pregnant or postpartum women before they were involved with child welfare or to serve children affected by parental substance use issues, but not their parents.

Past collaborative endeavors were key to the progress made during the grant period. More than 75 percent of the projects reported that previous collaborations were a starting point for their RPG4 or RPG5 partnerships. Despite their shared histories, improving their collaborations was sometimes an explicit goal, and many thought that they had achieved it. Unsurprisingly, project staff said communicating during frequent, regular meetings strengthened their collaboration, despite challenges some of them faced in meeting during the COVID-19 pandemic. Having enough funding and support from project and agency leaders also facilitated most partnerships, and so did training staff within and across systems and having enough capacity to serve participants. Many projects, however, noted ways that staff training or their capacity to serve participants could have been improved. Many projects were under-enrolled because they received fewer referrals from their partners than anticipated, especially during the height of the COVID-19 pandemic. However, the pandemic also contributed to substantial turnover in child welfare and substance use treatment staff, which limited the number of families some RPG projects could serve at a given time, even if referrals had been higher.

Cost of selected services (RPG4 and RPG5)

Projects must decide how to use their finite resources to best serve families, and cost studies can give them insight into the budgetary implications of offering specific practices. The RPG cost study focused on understanding the cost of delivering the following two trauma-specific, evidence-based practices (EBPs): Seeking Safety and Trauma-Focused Cognitive Behavioral Therapy (TF-CBT). These EBPs were selected because they were (1) commonly implemented by RPG projects and (2) implemented with both adults and children.[8]

The three largest cost drivers for both Seeking Safety and TF-CBT were: (1) staff salaries, fringe benefits, and overtime; (2) indirect or overhead costs; and (3) facilities costs. However, the total cost to implement both EBPs represented a small portion of a grantee's overall

[8] More information about the cost study design can be found in Burwick et al., 2017.

operating costs. Each of the two EBPs examined in this study was one of many interventions that the grantees delivered. Neither of them was the primary intervention for the RPG projects in the sample. This is reflected in both the time staff spent delivering the EBPs out of their total time working and in the EBPs' small impact on grantees' budgets. Specifically:

- More than half of the costs for both EBPs were allocated to personnel (61 percent for Seeking Safety and 56 percent for TF-CBT). However, staff did not spend a significant percentage of their total work hours implementing the EBP (on average, only 6 percent of their time).
- About one-quarter to one-third of the costs of implementing the EBPs were driven by indirect or overhead costs to the grantee organization (23 percent for Seeking Safety and 38 percent for TF-CBT) for resources such as administrative and support staff, rent and utilities, internet and phone services, and general supplies.
- The facilities costs to implement the EBPs were often small (about 10 percent of the overall cost).

These data suggest that Seeking Safety and TF-CBT can be implemented without incurring significant costs for additional resources such as contracted services, supplies and materials, new equipment, or other significant direct costs.

How did families change over time? (RPG4)

RPG's purpose is to improve the well-being, permanency, and safety of children who are in or at risk of out-of-home placements because of their parents' or caregivers' substance use issues. The cross-site evaluation team examined whether participants' outcomes improved after enrolling in RPG4. (Box ES.1 lists key limitations of the analysis.) The outcomes analysis examined the following five domains of interest to Congress and the Children's Bureau: (1) adult recovery; (2) family functioning; (3) child safety; (4) permanency; and (5) child well-being.

Box ES.1. Limitations of analysis of change over time

A substantial proportion of the eligible sample did not have both baseline and follow-up data on child well-being, adult substance use, and family functioning outcomes (obtained from standardized instruments). The subset of individuals who had both baseline and follow-up data had a somewhat different demographic profile from those who did not at both time points, although the two groups were not different on the outcomes' baseline values. Because of the differences, the families in the analysis cannot provide information that is representative of the full population of families served by RPG4. To address this concern, the cross-site evaluation team created and used nonresponse weights to improve the representativeness of the data.

A more general limitation of an analysis of change over time is that it cannot reveal whether the services themselves caused the observed changes. Other factors might have led to the changes. For example, people who entered RPG4 might have done so because they were ready to take action to improve their situations, and they might have improved even if they hadn't enrolled in RPG4. ◢

Adult recovery

- Adults reported decreased use of both drugs and alcohol from project entry to project exit. However, this finding is based on a response rate of about 34 percent.
- There was no change in the percentage of adults in publicly funded substance use treatment programs in the year after they enrolled in RPG4 compared with the year before they enrolled. During the year after they enrolled in RPG4, however, they were more likely to *complete* the substance use treatment programs. These results are based on the eight grantees that submitted recovery data.
- Adults reported fewer symptoms of trauma at project exit than at project entry. The result is based on a 35 percent response rate among the 12 grantees that submitted data.

Family functioning

- Adults reported fewer symptoms of depression at project exit than at project entry (38 percent response rate). The average score on the depressive symptoms instrument decreased from 10.8 (moderately depressed) to 7.6 (mildly depressed), a statistically significant decrease.
- There were statistically significant improvements in the five parenting attitudes, indicating a reduced risk for maltreatment of their children following participation in RPG4. These results are based on a 37 percent response rate.

Safety and permanency

- Maltreatment rates (based on both substantiated and unsubstantiated reports) for children enrolled in the RPG4 projects decreased by a statistically significant amount from the year before enrollment to the year following RPG4 entry. In a sample of 587 focal children, the incidence of reported maltreatment was 59 percent in the year before RPG4 enrollment and 20 percent in the 1-year period following RPG4 enrollment.
- There were statistically significant reductions in removals from the home from the year before RPG4 enrollment and the following year. A total of 145 eligible focal children, or 25 percent, were removed from their home in the year before RPG4 enrollment. This number decreased to 49 children, or 8 percent in the following year—a statistically significant decrease of 16 percentage points.

Child well-being

- There were no significant changes in child well-being outcomes from RPG4 project entry to project exit. This encompasses measures of emotional and behavioral problems and sensory processing.

Interim enrollment, baseline outcome, and service data (RPG5 and RPG6)

When analysis for this report was in progress, RPG5 and RPG6 projects were more than halfway through their grant periods and continuing to enroll and provide services to families. The results and patterns could change as the grants continue.

- **Number of enrolled families.** The 17 projects with data enrolled 1,282 cases made up of 1,553 adults and 2,459 children. This included 171 children in utero when their mother enrolled in RPG.
- **Demographic characteristics of enrolled adults.** Most adult participants were women (79 percent) and between the ages of 25 and 44 at enrollment (78 percent). More than half of the adults (58 percent) were White and non-Hispanic. Slightly more than 40 percent of adults were employed full time or part time or were self-employed.
- **Demographic characteristics of enrolled children.** About 45 percent of children were White and non-Hispanic, 21 percent were Black or African American, and 12 percent were Hispanic or Latino. Most children were receiving Medicaid (86 percent). Slightly more than half (52 percent) lived with one or both biological parents, and the rest of the children lived with another relative (28 percent) or a non-relative foster parent (19 percent).
- **Adult recovery and family functioning at enrollment.** At the time of their enrollment, 29 percent of adults were in the high-severity group for their use of drugs, alcohol, or both. Adults enrolled in RPG5 and RPG6 reported more negative parenting attitudes at project entry compared with adults in national samples. At enrollment, adults had a higher mean score for depressive symptoms (12.2) than a representative sample of parents of children (5.7) in Head Start.[9]
- **Child safety and permanency at enrollment.** About 46 percent of the children who were enrolled in RPG5 and RPG6 were involved in the child welfare system the year before enrollment. Of those, in the year before enrollment, 25 percent of children had a child maltreatment report (including substantiated and unsubstantiated reports) with no removal from the home; 19 percent of children had a report and were removed from their home; and 3 percent of children were removed from their home without a report.
- **Child well-being at enrollment.** On average, emotional and behavioral problems were more common among focal children at RPG project enrollment than they were in national samples of children, but sensory processing outcomes were similar.

Services. Nearly all enrolled families participated in services. Ninety-four percent of enrolled families attended at least 1 service encounter, and 90 percent attended more than 1 encounter. Eighty-five percent of service encounters were primary services, which deliver the main content of the RPG project to families.

[9] Head Start is a program run by the Administration for Children and Families that provides early childhood education to eligible families with children ages 3 to 5.

I. INTRODUCTION

One of the most common risk factors for experiencing maltreatment in childhood, either neglect or abuse, is a caregiver's substance use (Box I.1). In 2021, more than 26 percent of children who experienced maltreatment[10] (that is, more than 116,000 children) had a caregiver who misused drugs (U.S. Department of Health and Human Services [HHS], 2023a).[11] In that same year, about 15 percent of victims (more than 53,000 children) had a caregiver who misused alcohol (HHS, 2023a).[12] These risk factors can be co-occurring for some children. Among these children were more than 40,000 infants who were referred to child protective services (CPS) for prenatal substance exposure and were screened in for investigation (HHS, 2023a).

Box I.1. Terminology in this report

This report uses non-stigmatizing language, such as substance use disorder and substance use, as set forth in the U.S. Surgeon General's report (HHS, 2016) and recommended by the Office of National Drug Control Policy (Botticelli, 2017), except when older terminology appears in proper names. ◢

Parental substance use can influence child well-being. Children exposed prenatally to alcohol and other drugs are at higher risk for both short-term effects, such as slower fetal growth and neonatal withdrawal, and long-term negative effects on their growth, cognition, and behavior (Behnke & Smith, 2013). Children who are removed from their home and whose parents use substances tend to be in foster care longer than other children (Mowbray et al., 2017). In addition, children who experience maltreatment are themselves at greater risk of eventually using substances and thereby perpetuating a generational cycle of substance misuse and child maltreatment (Cicchetti & Handley, 2019).

However, families involved with CPS often have strengths and motivation to change. A group of 10 clinicians who served parents involved with CPS described the parents' commitment to their child, desire to care for them, and interest in improving their parenting skills (Yoo et al., 2022). The clinicians also acknowledged that in addition to substance use issues, the parents often struggled with limited knowledge about parenting and had few resources or support for either issue (Yoo et al., 2022)—areas that might be amenable to intervention. A small study of parents who were at risk for having their children placed in foster care found that many of them wanted help with their parenting practices (Bolen et al., 2008).

Improving outcomes for children affected by their parent or caregiver's substance use was one of the targets for funds when Congress passed the Child and Family Services Improvement Act of 2006 (Pub. L. 109-288). The legislation amended section 437 of the Social Security Act

[10] The states determine whether maltreatment is substantiated or indicated (that is, maltreatment may not be substantiated under state law or policy, but there was reason to suspect that at least one child may have been maltreated or was at risk of maltreatment) (HHS, 2023a).

[11] The risk factor was categorized as "drug abuse," which was defined as "the compulsive use of drugs that is not of a temporary nature" (HHS, 2023a). These results were limited to 41 states that reported data on "drug abuse" as a possible risk factor.

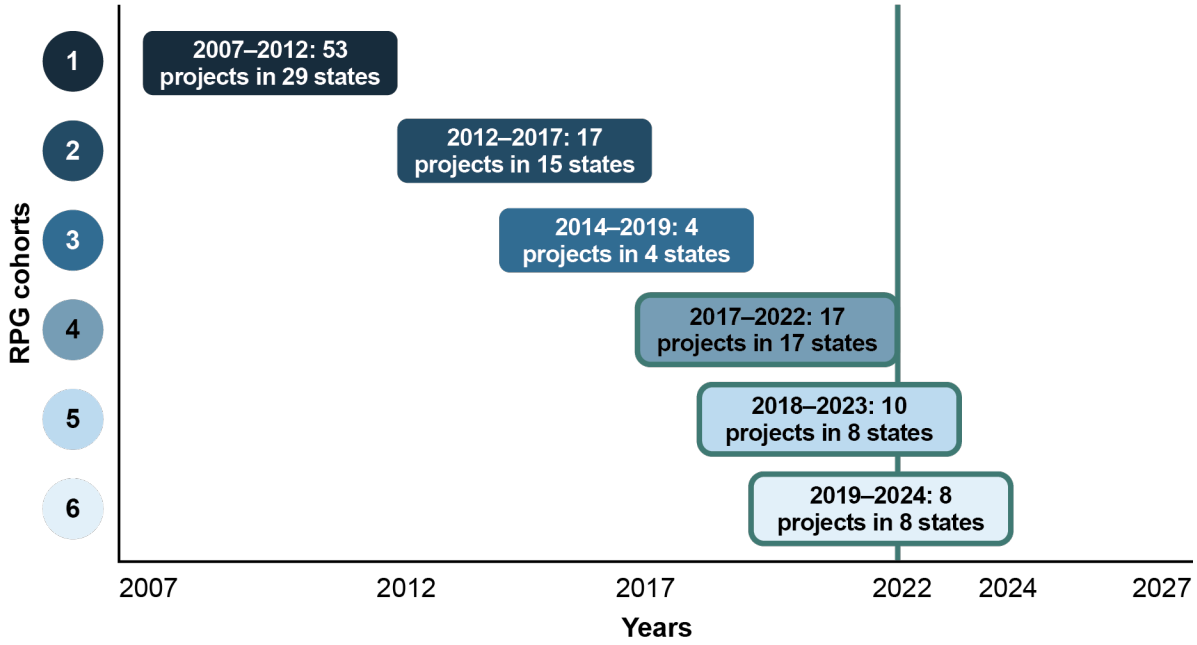
[12] The "alcohol abuse" risk factor, which was defined as "the compulsive use of alcohol that is not of a temporary nature," was reported by 34 states (HHS, 2023a).

(42 U.S.C. 629g[f]) to authorize the Children's Bureau (CB) in the Administration on Children, Youth and Families (ACYF) within the Administration for Children and Families (ACF) at HHS to fund discretionary grants to improve safety, well-being, and permanency outcomes for children at risk of or in out-of-home placement because of their caregiver's substance use.

In response to the legislation, in 2007, HHS launched a competitive grants program, the Targeted Grants to Increase the Well-Being of, and to Improve the Permanency Outcomes for, Children Affected by Methamphetamine and Other Substance Abuse,[13] also known as the Regional Partnership Grants (RPG) program. Reauthorized in 2011 and again by the Bipartisan Budget Act of 2018 (Pub. L. 115-123), these grants are designed to support partnerships between child welfare agencies, substance use treatment organizations, and other social services systems, and thereby improve the well-being, permanency, and safety of children and families.

Since 2007, HHS has awarded 6 cohorts of grantees (referred to in this report as RPG1–RPG6). As Figure I.1 shows, the 6 cohorts have included 109 RPG projects. RPG4, RPG5, and RPG6, which are the subjects of this report, included 35 grantees that were active in 2022.

Figure I.1. Timing and number of RPGs awarded, 2007–2022



To help assess whether the RPG program operates as intended and meets its desired goals, Congress requires HHS to define and collect performance measures data from the lead agency for each grant. The 2011 reauthorizing legislation for the RPG program, Pub. L. 112-34, requires HHS to evaluate the services and activities that are provided with RPG funds. To evaluate the overall program and to satisfy the legislative mandates, HHS contracted with

[13] This report only uses the term "substance abuse," which has a high association with negative judgments and punishment (National Institute on Drug Abuse, 2021), when it is the actual term used in legislation, report and document titles, or organization or program names.

Mathematica and its partner, WRMA Inc., to conduct a national RPG cross-site evaluation. As part of the evaluation, HHS has submitted seven reports to Congress that were prepared by the contractor (Appendix A).[14]

This chapter introduces the Eighth Report to Congress. Section A describes the 35 RPG projects in the 3 cohorts (RPG4, RPG5, and RPG6) included in the report. Section B is an overview of the technical assistance (TA) that grantees received. Section C is an overview of the content and organization of the remainder of the report.

A. Current grantees

The three cohorts are in different stages of their grants. By September 2022, the RPG4 cohort's five-year period of performance had ended;[15] the RPG5 cohort had completed the fourth year of its grants; and the RPG6 cohort had completed the third year of its grants.

1. RPG4 cohort

In 2017, HHS funded 17 RPG projects, which are shown in Table I.1. Fifteen of the grants were awarded through the general RPG funding opportunity announcement (ACF, 2017a). Two grants, in Alaska and Kansas, were awarded through a funding opportunity announcement for organizations that offer RPG services to American Indian or Alaska Native (AIAN) communities (ACF, 2017b). The grants were disbursed to and administered by lead agencies, also referred to as grantees. A variety of organizations received a 2017 grant, though most were awarded to behavioral health services providers, with family support providers the second most common type of organization. HHS allows current or former grantees to apply for additional rounds of funding. Seven of the 17 grantees had participated in earlier RPG rounds, as shown in Table I.1. For both RPG4 funding opportunities, the annual grant award could range from $500,000 to $600,000 per year, or up to $3 million in total for 5 years, with the required percentage of grantee matching funds increasing over time. Twelve grantees received the maximum award amount. The grantees spanned the continental United States and Alaska, including both urban and rural areas.

[14] A separate contractor prepared the reports to Congress for RPG1, which concluded before the cross-site evaluation began with RPG2.

[15] Eleven grantees requested and received no-cost extensions.

Table I.1. Grantees funded in 2017 (RPG4)

State where located and grantee name	Area served[a]	Congressional district(s)	Organization type[b]	Previous RPG	Total program funding
Alaska: Cook Inlet Tribal Council, Inc.	Anchorage	AK-1	Family support services provider (tribal organization)	RPG1	$3,000,000
Alabama: University of Alabama at Birmingham	Jefferson County	AL-7	University hospital or clinic	No	$3,000,000
Delaware: Children & Families First Delaware	Delaware	DE (at large)	Family support services provider	No	$2,930,850
Florida: Broward Behavioral Health Coalition, Inc.	Broward County	FL-20, -22–24	Contracted entity to oversee the network of behavioral health services providers	No	$3,000,000
Illinois: Youth Network Council dba Illinois Collaboration on Youth	Boone, Kankakee, Will, and Winnebago counties	IL-1–3, -11, -14, -16–17	Youth advocacy organization	No	$2,954,115
Indiana: Volunteers of America Indiana (VOAIN)	Marion County	IN-7	Substance use treatment provider	No	$3,000,000
Iowa: Northwest Iowa Mental Health dba Seasons Center	Calhoun, Carroll, Cherokee, Crawford, Ida, Monona, Plymouth, Pocahontas, Sac, and Woodbury counties	IA-5	Behavioral health services provider	RPG2	$3,000,000
Kansas: University of Kansas Center for Research, Inc.	Johnson, Wyandotte, Douglas, and Shawnee counties; and tribal sites of the Iowa Tribe of Kansas and Nebraska, the Kickapoo Tribe in Kansas, Prairie Band Potawatomi Nation, and Sac and Fox Nation of Missouri in Kansas	KS-2–3	University	RPG3	$2,986,808
Kentucky: Mountain Comprehensive Care	Johnson, Martin, and Floyd counties	KY-5	Behavioral health services provider	No	$3,000,000
Missouri: Preferred Family Healthcare, Inc.	Greene, Barry, Lawrence, Stone, Christian, and Taney counties	MO-7	Behavioral health services provider	RPG2	$2,988,170
Ohio: The Ohio State University	Fairfield and Pickaway counties	OH-3	University	No	$3,000,000
Oklahoma: Oklahoma Department of Mental Health and Substance Abuse Services	Oklahoma and Tulsa counties	OK-5	State mental health and substance use services agency	RPG1, RPG2	$3,000,000

State where located and grantee name	Area served[a]	Congressional district(s)	Organization type[b]	Previous RPG	Total program funding
Tennessee: Helen Ross McNabb Center	Knox County	TN-2	Behavioral health services provider	RPG1, RPG2	$3,000,000
Vermont: Lund Family Center, Inc.	Chittenden, Orleans, and Essex counties	VT (at large)	Family support services provider	RPG1	$3,000,000
Washington: Catholic Charities of Spokane	Spokane County; Spokane, Kalispel, and Colville tribal sites	WA-4–5	Family support services provider	No	$2,970,000
West Virginia: Prestera Center for Mental Health	Cabell, Lincoln, and Wayne counties	WV-3	Behavioral health services provider	No	$3,000,000
Wisconsin: Meta House, Inc.	Milwaukee County	WI-4	Substance use treatment provider	No	$3,000,000

[a] Areas are cities unless otherwise indicated.

[b] These categorizations describe the grantee organization as a whole and differ somewhat from how grantees are classified in Chapter V, which focuses on the collaboration between child welfare and substance use treatment providers within each project. For example, in this table, substance use treatment providers are entities that offer only addiction recovery services. In contrast, in Chapter V, an organization is categorized as a substance use treatment provider if it offers those services and/or mental or behavioral health treatment or supports to adults, children, or the family unit affected by substance use.

Note: dba = doing business as; RPG = Regional Partnership Grants; TA = technical assistance.

Source: Grantees' RPG applications; calls between Mathematica and grantees, local evaluators, federal project officers, and programmatic TA providers; and summaries of projects provided by the National Center on Substance Abuse and Child Welfare.

2. RPG5 cohort

HHS funded 10 RPG projects in 2018, as shown in Table I.2. Applicants could apply for up to $1.9 million for a single 3-year project and budget period (ACF, 2018). In total, HHS awarded $15,517,100 in amounts ranging from $745,143 to $1,900,000. Midway through the initial grant period, HHS offered two-year extensions with additional funds. Nine of the 10 awardees applied for and received this extension. Half of the projects are led by a previous or current RPG grant recipient, including two that held ongoing RPG4 grants. The projects are spread across the East Coast and the Midwest, in both urban and rural areas. Like the 2017 cohort, the 2018 grantees represent various types of organizations, but most of them are behavioral health service providers.

Table I.2. Grantees funded in 2018 (RPG5)

State where located and grantee name	Area served[a]	Congressional district	Organization type[b]	Previous RPG	Total program funding[c]
Florida: Citrus Health Network dba Citrus Family Care Network	Miami-Dade County	FL-24	Entity contracted to oversee child welfare service providers	RPG3	$3,169,624
Florida: Family Support Services of North Florida	Duval County	FL-4	Entity contracted to oversee child welfare service providers	No	$2,952,624
Illinois: Centerstone of Illinois, Inc.	Franklin, Jackson, Madison, Perry, Randolph, St. Clair, Washington, and Williamson counties	IL-12	Behavioral health services provider	No	$745,173
Iowa: Judiciary Courts for the State	Eastern Region of Iowa	IA-02	Court or judicial agency	No	$3,069,624
Iowa: Northwest Iowa Mental Health Seasons Center	Buena Vista, Clay, Dickinson, Emmet, Lyon, O'Brien, Osceola, Palo Alto, Plymouth, Sioux, and Woodbury	IA-004	Behavioral health services provider	RPG4	$3,069,624
Massachusetts: Institute for Health and Recovery, Inc.	Worcester County	MA-002	Behavioral health services provider	No	$2,943,997
Missouri: Preferred Family Healthcare, Inc.	Cole, Boone, and Callaway counties	MO-003	Behavioral health services provider	RPG4	$3,159,390
New York: Montefiore Medical Center	Bronx	NY-015	University hospital or clinic	RPG3	$3,169,623
Pennsylvania: Health Federation of Philadelphia	Philadelphia and Bucks counties	PA-001	Family support services provider	RPG2	$3,169,623
South Dakota: Volunteers of America, Dakotas	Sioux Falls	SD-South Dakota at Large	Substance use treatment provider	No	$2,918,656

[a] Areas are cities unless otherwise indicated.

[b] These categorizations describe the grantee organization as a whole and differ somewhat from how grantees are classified in Chapter V, which focuses on the collaboration between child welfare and substance use treatment providers within each project. For example, in this table, substance use treatment providers are entities that offer only addiction recovery services. In contrast, in Chapter V, an organization is categorized as a substance use treatment provider if it offers those services and/or mental or behavioral health treatment or supports to adults, children, or the family unit affected by substance use.

[c] The amounts in the table include the original 3-year award plus the 2-year extension award, except for Illinois, which did not apply for the extension.

Note: dba = doing business as; RPG = Regional Partnership Grants; TA = technical assistance.

Source: Grantees' RPG applications; calls between Mathematica and grantees, local evaluators, federal project officers, and programmatic TA providers; and summaries of projects provided by the National Center on Substance Abuse and Child Welfare.

3. RPG6 cohort

HHS funded 8 RPG6 projects in 2019, as shown in Table I.3. Applicants could request up to $2,650,000 for a single 5-year project and budget period (ACF, 2019). Five of the 8 RPG6 awardees had received a grant before, including two that held RPG4 awards from 2017 and one that had received awards in both 2017 and 2018. The projects are concentrated in the Midwest and along the East Coast, in both urban and rural areas. As with the RPG4 and RPG5 cohorts, behavioral health service providers are the single most common type of grantee agency.

Table I.3. Grantees funded in 2019 (RPG6)

State where located and grantee name	Area served[a]	Congressional district(s)	Organization type	Previous RPG	Total program funding
Colorado: Colorado Judicial Department; State Court Administrator's Office	Arapahoe, Broomfield, Denver, El Paso, Garfield, Jefferson, and Huerfano counties (additional counties to be identified)	All	Court or judicial agency	No	$2,650,000
Georgia: Georgia State University Research Foundation, Inc.	Hall, Dawson, Chatham, Clarke, Oconee, Baldwin, Jones, Putnam, Greene, Morgan, Wilkinson, Hancock, and Jasper counties	GA-005	University	RPG2	$2,640,931
Illinois: Youth Network Council dba Illinois Collaboration on Youth	Livingston, Ford, Iroquois, McLean, Dewitt, Macon, Shelby, Moultrie, Piatt, Champaign, Douglas, Coles, Cumberland, Vermilion, Edgar, and Clark counties	IL-13, -15, -16, and -18	Youth advocacy organization	RPG4	$2,650,000
Missouri: Preferred Family Healthcare, Inc.	Miller, Moniteau, and Morgan counties	MO-003	Behavioral health services provider	RPG2, RPG4, RPG5	$2,496,632
New Hampshire: Mary Hitchcock Memorial Hospital dba Dartmouth-Hitchcock Medical Center	Sullivan and Grafton counties	NH-002	University hospital or clinic	No	$2,646,953
New Jersey: Acenda, Inc.	Atlantic, Cape May, and Ocean counties	NJ-002	Behavioral health services provider	No	$2,612,500
Oklahoma: Oklahoma Department of Mental Health and Substance Abuse Services	Oklahoma County	OK-005	State agency	RPG1, RPG2, RPG4	$2,650,000

State where located and grantee name	Area served[a]	Congressional district(s)	Organization type	Previous RPG	Total program funding
West Virginia: Prestera Center for Mental Health	Boone, Kanawha, Raleigh, and Wyoming counties	WV-003	Behavioral health services provider	RPG4	$2,650,000

[a] Areas are cities unless otherwise indicated.

Note: dba = doing business as; RPG = Regional Partnership Grants; TA = technical assistance.

Source: Grantees' RPG applications; calls between Mathematica and grantees, local evaluators, federal project officers, and programmatic TA providers; and summaries of projects provided by the National Center on Substance Abuse and Child Welfare.

B. Technical assistance

To support grantees in the implementation and evaluation of their projects, HHS provided them with TA through two federal contractors. ACYF and the Substance Abuse and Mental Health Services Administration (SAMHSA) contracted with Children and Family Futures to manage the National Center for Substance Abuse and Child Welfare (NCSACW). Since 2007, NCSACW has provided programmatic TA to RPG projects, which can include support for collaborative practice and policy, program sustainability, and trauma-informed services.[16] Starting in 2012, as part of its contract to design and conduct the RPG national cross-site evaluation, Mathematica provided TA to support each cohort's project-specific evaluations—referred to in this report as local evaluations—and grantees' participation in the cross-site evaluation. Evaluation TA evolves as the grantees and their partners progress through their evaluation from designing and planning through implementation, data collection, and analysis.[17]

C. Content and organization of this report

This report summarizes findings to date from the cross-site evaluation for RPG4, RPG5, and RPG6. Through the cross-site evaluation of all RPG projects, HHS seeks to better understand: (1) who enrolled in the RPG projects; (2) the services they received; (3) the partnerships that formed the basis of each project; (4) participants' outcomes; and (5) the impacts of the projects (D'Angelo et al., 2019). Although an impact study was planned for the RPG4 cohort, some grantees were unable to carry out their planned designs (for example, they could not identify a comparison group that was similar to the families in RPG but did not receive services). Most did not enroll as many families as they planned to or collect data from most of the families they enrolled. For that reason, the cross-site evaluation team did not conduct an impact analysis across grantees because the analysis would not have had sufficient statistical power. However, some project teams in the RPG4 cohort planned to use the data they collected to analyze the impacts of their program separately, known as a local impact evaluation. In addition, the RPG5

[16] NCSACW also provided TA to the RPG1 cohort on collecting and submitting performance measures and conducting their own project-specific evaluations. For more information on NCSACW's TA to RPG cohorts, see https://ncsacw.acf.hhs.gov/technical/rpg.aspx.

[17] For more information, see https://www.mathematica.org/projects/regional-partnership-grants-national-cross-site-evaluation.

and RPG6 cohorts continue to conduct impact evaluations, and a cross-site analysis from those cohorts is still planned.

Because the cohorts were in different stages of their grants, there are different types and levels of information about them in this report. Most of the report focuses on RPG4, which ended in September 2022.[18] The report includes interim information for RPG5 and RPG6. The time span covered by the data differs by cohort and data source. For RPG4, the data cover about three years, from March 2019 through March 2022, for most data sources.[19] For RPG5 and RPG6 projects, some data were collected through November 2021, whereas other data sources extended through April 2022. Appendix B has more information on data sources used in the report.

Since 2020, RPG projects have been operating during the COVID-19 pandemic, which required them to adapt in many ways. For example, some projects switched to virtual service delivery, and many tried to meet the increased needs of participants (HHS, 2023b). Some or all staff worked remotely, and staff turnover increased for some projects. This context is useful to consider when interpreting the findings from the cross-site evaluation (HHS, 2023b).

The remainder of this report is organized as follows:

- Chapter II describes the characteristics of families and individuals who enrolled in the RPG4 projects and how they were referred to the projects.
- Chapter III describes the RPG4 services that families participated in and discusses the following three broad patterns of services that characterize the grantees in this cohort: (1) diverse, peer-based services; (2) therapy or counseling; and (3) parenting training or home visiting.
- Chapter IV examines the partnerships that constitute the RPG4 and RPG5 projects, including the organizations that make up RPG4 and RPG5 partnerships and how they collaborated. The underlying data were collected from both cohorts at the same time; thus, they were both included in this chapter.
- Chapter V is a deeper examination of a key partnership for RPG projects – the connection between child welfare and substance use treatment systems. As with Chapter IV, the underlying data were collected from both cohorts at the same time; thus, they were both included in this chapter.
- Chapter VI focuses on understanding the costs associated with delivering two trauma-specific practices, Seeking Safety and Trauma-Focused Cognitive Behavioral Therapy (TF-CBT), that were used by grantees in RPG4 and RPG5.[20] The chapter provides information

[18] Some grantees requested and received no-cost extensions.

[19] Although the period of performance for RPG4 began in September 2017, data collection for the cross-site evaluation did not begin until March 2019. The grantees had a six-month planning period, and the cross-site evaluation team had to finalize the evaluation design, develop a system for grantees to use for data collection and management, and secure necessary approvals from HHS for collecting data and using the data system.

[20] These practices were selected because they were: (1) commonly implemented by RPG projects, and (2) included at least one program model that served both adults and children (Burwick et al., 2017).

on how grantees used program resources to deliver services, the potential factors driving program costs, and the variation in program costs across grantees.

- Chapter VII focuses on whether and how participants' outcomes changed after receiving RPG services. The analysis examines change over time in the following five domains of interest to Congress and the Children's Bureau: (1) adult recovery; (2) family functioning; (3) child safety; (4) permanency; and (5) child well-being.
- Chapter VIII includes interim data for the RPG5 and RPG6 cohorts on enrollment and services during the early to middle stages of their grants.

Terms used throughout the report are defined in Box I.2.

Box I.2. Terms and definitions in this report

- **Administrative data.** Records that governments or other organizations collect as part of their operations. Although they can be used for research, they are not collected for that purpose, but to support and document the administration of programs.
- **Cases.** The family, household, or group of individuals who enroll into an RPG project to receive services together.
- **Child well-being reporter.** The focal child's current primary caregiver, who has cared for the child for the past 30 days or longer.
- **Evidence-based practices**. Practices that integrate the best available research and practice expertise in a given field to support implementation.
- **Family functioning adult.** The focal child's biological or adoptive parent. If a biological or adoptive parent was not part of the case enrolled in RPG, the reporter was the adult with the goal of reunification with the focal child.
- **Focal child.** A single child in each family whom the project teams collected data on for the child well-being measures, to limit the burden associated with data collection. Each project team defined criteria for the focal child (such as the youngest child in a family, if there were multiple children) and used them to select the focal child within each enrolled family.
- **Grantee.** The organization that was awarded the grant.
- **Partner(s).** The organizations that work with a grantee organization to serve families as part of the RPG project.
- **Partnership.** The relationships between organizations involved in an RPG project.
- **Recovery domain adult.** The adult who is at risk of developing a substance use issue, has an active substance use issue, or is in recovery from a substance use issue. If no such adult is part of the case, the family functioning adult will also be the recovery domain adult.
- **RPG program.** The grant program that funds RPG projects.
- **RPG project.** The grantee organization along with its partner organizations, and/or the services they provide through RPG.
- **Service encounter.** An interaction between a service provider and the family receiving the RPG service, such as a meeting with a case manager or therapist, a support group, a mentoring

session, or a parenting training. Projects report details about the interaction that include location, duration, attendance, and the topics that were covered.

- **Service type.** There are the two following service types: (1) primary services and (2) supportive services. *Primary services* deliver the main content of the RPG project to families, and include case management or service coordination, mentoring, parenting training or home visiting programs, support groups or workshops, and therapy or counseling. *Supportive services* are ancillary services that may complement the primary services, such as child care, financial or material support, housing, screening or assessment, and transportation.
- **Standardized instrument.** A set of questions and response options that are given to eligible respondents, usually with instructions on how to answer or interpret the questions. The instrument is scored in a standard or consistent manner, which makes it possible to compare the relative performance of individuals or groups.
- **Substance.** A psychoactive compound with the potential to cause health and social problems, including substance use issues (HHS, 2016).
- **Substance misuse.** The "use of any substance in a manner, situation, amount or frequency that can cause harm to users or to those around them. For some substances or individuals, any use would constitute … misuse (e.g., underage drinking, injection drug use)" (HHS, 2016).
- **Substance use disorder (SUD).** A medical illness caused by repeated misuse of a substance or substances (HHS, 2016).
- **Substance use treatment.** A service or set of services that can include medication, counseling, and other supportive services designed to enable an individual to reduce or eliminate use of alcohol and/or other drugs, address associated physical or mental health problems, and restore the patient to maximum functional ability (HHS, 2016).
- **Substance use issues**. The term used in this report to encompass substance use, substance misuse, and substance use disorder. ◢

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II. CHARACTERISTICS OF FAMILIES ENROLLED IN RPG4 PROJECTS

Although all RPG projects are charged with serving families that are at risk of being involved with child welfare—or already involved—because of a caregiver's substance use, each project defined the segment of that focal population that it intended to serve. The projects based these definitions on the needs of their communities and the people they expected to benefit from the planned service. For example, some projects enroll families based on how old their children are and whether they are involved with the child welfare system. Other projects serve families with a parent who has been diagnosed with or is in treatment for SUD, has screened positive for a potential SUD, or who has misused some type of substance. The characteristics of people in RPG will reflect projects' successes in enrolling the people they aimed to serve, within the communities or regions where the projects operated, and into the RPG services they provided.

This chapter discusses the families and individuals who enrolled in the RPG4 projects from March 1, 2019, through March 11, 2022.[21] Section A describes each RPG4 project's focal population. Section B focuses on the referral pathways for RPG4 projects. Section C provides a broad overview of the characteristics of the families enrolled in RPG4 projects. Section D describes the sociodemographic characteristics of the adults and children who enrolled in RPG4 projects. Lastly, Section E describes the substance use, family functioning, and well-being characteristics of adults and children who enrolled in RPG4 projects.

A. Focal populations served by RPG4 projects

RPG4 projects defined their focal populations using some combination of the three following factors: (1) family demographics; (2) child welfare involvement; and (3) substance use issues. A summary of the 17 RPG4 projects and the focal populations they aimed to serve, as of the end of cross-site data collection, is in Table II.1. Fifteen projects focused on families with an active child welfare case, and six projects focused on families that were at risk of involvement with child welfare.

[21] Projects completed training about data collection on enrollment, services, and outcomes for the cross-site evaluation on March 1, 2019. March 11, 2022, was the last date that projects could upload outcomes data before data analysis for this report began.

Table II.1. Focal populations served by RPG4 projects

State	Project	Focal populations				
		Pregnant women and parents of young children[a]	AIAN	Other family demographics[b]	Active child welfare case	At risk of child welfare involvement
Alaska	Cook Inlet Tribal Council, Inc.		✓		✓	
Alabama	University of Alabama at Birmingham	✓				✓[c]
Delaware	Children & Families First Delaware	✓				✓[c]
Florida	Broward Behavioral Health Coalition, Inc.			✓	✓	
Illinois	Youth Network Council dba Illinois Collaboration on Youth				✓	
Indiana	Volunteers of America Indiana	✓			✓	
Iowa	Northwest Iowa Mental Health dba Seasons Center				✓	✓
Kansas	University of Kansas Center for Research, Inc.		✓		✓	
Kentucky	Mountain Comprehensive Care				✓	
Missouri	Preferred Family Healthcare, Inc.				✓	✓
Ohio	The Ohio State University				✓	
Oklahoma	Oklahoma Department of Mental Health and Substance Abuse Services	✓			✓	
Tennessee	Helen Ross McNabb Center	✓			✓	✓
Vermont	Lund Family Center, Inc.			✓	✓	
Washington	Catholic Charities of Spokane		✓		✓	
West Virginia	Prestera Center for Mental Health	✓			✓	
Wisconsin	Meta House, Inc.			✓	✓	✓
Number of projects		**6**	**3**	**3**	**15**	**6**

[a] Young children were defined as children age 5 or younger.

[b] This category includes projects aiming to enroll only women as the adult in the family and serving children from birth to age 12.

[c] The Alabama and Delaware projects did not explicitly state that their focal population included families that were at risk of child welfare involvement. However, this focal population was implied because both projects aimed to serve

pregnant women with SUDs. These women would be at risk for child welfare involvement once their child was born if the child showed signs of withdrawal or other issues attributable to substance use.

Note: AIAN = American Indian or Alaska Native; dba = doing business as; RPG4 = Regional Partnership Grants, Cohort 4.

Source: RPG grant applications, Semi-Annual Progress Reports, as of October 2021.

Some RPG4 projects changed or refined the eligibility criteria for their focal population over the course of the grant period. From April 2018 through October 2021, 9 of the 17 RPG4 projects reported making such a change. The reasons for these changes included the need to increase referrals, be responsive to the needs of their local contexts, or both. For example, two projects modified their focal populations to engage families earlier, such as by serving pregnant women in addition to mothers who recently gave birth or adding newborns to populations of children ages 6 months to 24 months. Two projects expanded their focal populations to include new types of child welfare cases, such as families with children who were placed with a relative or nonrelative caregiver, or families with a conditional custody order that allowed the children to remain at home. Other projects broadened the age range of eligible children (for example, changing the range from birth to 6 to birth to 12) or the project's catchment area (for example, by including a new geographic region).

1. RPG4 projects' ability to reach their focal populations

Most RPG4 projects enrolled families with characteristics that aligned with some or all of their specified eligibility criteria. Twelve projects used demographic eligibility criteria; all of them met the targets they set.

In 13 projects the majority of families enrolled had a history of child welfare involvement, whereas in 12 projects the majority of enrolled adults had a history of substance use issues. Only one project did not enroll a majority of families with either of these issues. Projects were not required to enroll families with an established history of these issues, but as noted, many projects defined their eligibility criteria to focus on these families.

A total of seven projects met all three of the following benchmarks: (1) demographics; (2) child welfare involvement; and (3) history of substance use. However, this analysis was limited by the quality and availability of the administrative data on child welfare and substance use that the projects acquired.[22] That is, more projects might have served families with these characteristics, but they did not have the data to show this.

[22] Projects met the benchmark for serving families with child welfare involvement if at least 50 percent of their enrolled families had any reports of maltreatment or an open placement in the administrative data obtained by grantees. Projects met the benchmark for serving families with substance use history if at least 50 percent of their enrolled families either had any record of past substance use treatment in the administrative data or had reported any drug or alcohol use on the Addiction Severity Index in the 30 days before project enrollment. Many projects were unable to obtain administrative data on either child welfare or substance use treatment, which affected the conclusions presented here. The four projects that did not meet the child welfare benchmark had not obtained administrative data on child welfare. Seven projects did not collect administrative data on treatment, and five of these did not meet the substance use benchmark. Of the 10 projects that did not meet all 3 benchmarks, all were missing at least 1 if not both administrative data sources.

B. RPG4 projects' referral sources

To enroll families in services, RPG4 projects used multiple referral sources. More than three-quarters of families received referrals to the projects from partner organizations (77 percent) rather than from the grantee, reflecting a goal of the RPG program to develop partnerships to serve high-needs families. As shown in Table II.2, most families enrolled in RPG4 projects were referred from either a child welfare agency (51 percent) or a substance use treatment provider (19 percent). There was little change in the referral sources between the first and last half of cross-site data collection.

Table II.2. Referral sources for families enrolled in RPG4 projects

Referral source	Overall percentage (sample size)	Earlier years of grant[a]	Later years of grant[b]	Change in percentage
		Percentage (sample size)	Percentage (sample size)	
Referring organization				
Grantee	23.2 (254)	21.0 (108)	25.2 (146)	4.2
Partner organization	76.8 (841)	79.0 (407)	74.8 (434)	-4.2
Referral source				
Child welfare agency (public or private)	51.4 (570)	52.2 (270)	50.8 (300)	-1.5
Substance use treatment provider	18.5 (205)	18.6 (96)	18.4 (109)	-0.1
Mental or behavioral health provider	6.1 (68)	3.9 (20)	8.1 (48)	4.3
Hospital or clinic	8.1 (90)	7.4 (38)	8.8 (52)	1.4
Family support service agency	0.3 (3)	0.0 (0)	0.5 (3)	0.5
Indian or Native American tribally designated organization	0.5 (5)	1.0 (5)	0.0 (0)	-1.0
Self-referral or walk-in	7.1 (79)	7.2 (37)	7.1 (42)	-0.1
Court	2.7 (30)	3.3 (17)	2.2 (13)	-1.1
Other	0.5 (5)	0.4 (2)	0.5 (3)	0.1
Unknown	4.8 (53)	6.2 (32)	3.6 (21)	-2.6

[a] Includes families enrolled from March 1, 2019, through August 31, 2020.

[b] Includes families enrolled from September 1, 2020, through March 11, 2022.

Note: RPG4 = Regional Partnership Grants, Cohort 4; SUD = substance use disorder.

Source: Regional Partnership Grant-Evaluation Data System data, March 1, 2019, through March 11, 2022.

C. Number of families enrolled in RPG4 projects

Enrollment was an ongoing process for projects to fill their caseloads and meet enrollment targets. The cross-site evaluation focused on enrolling families (regardless of which members received services), with a family defined as the group of people who enrolled together in RPG services. At a minimum, each family enrolled in RPG had to include one adult and one child.

During the 3 years of cross-site enrollment, the RPG4 projects enrolled 1,108 families, which comprised 1,301 adults and 1,769 children, including 176 children in utero at the time of their mother's enrollment.[23] The average size of a family was about three people, with one adult and two children, as shown in Table II.3.

Table II.3. Summary of families enrolled in RPG4 projects

Characteristics of enrollees	Results
Families (number)	1,108
Individuals (number)	3,070
Average number of people in a family	2.8
Range in family size	2–9
Number of adults in a family	1,301
Number of children in a family	1,769
Children in utero at enrollment	176

Note: RPG4 = Regional Partnership Grants, Cohort 4.

Source: Regional Partnership Grant-Evaluation Data System data, March 1, 2019, through March 11, 2022.

Most RPG4 projects did not fully meet their enrollment goals.[24] Table II.4 shows each project's enrollment target, its enrollment through March 31, 2022, and its enrollment in the cross-site evaluation as of March 11, 2022. Families could receive services even if they did not consent to be in the evaluation. Two of the 17 projects exceeded their target case enrollment, and 4 projects enrolled enough families to meet at least 80 percent of their enrollment target.

Table II.4. Target and actual enrollment of families in RPG4, by project

State of project	Target enrollment[a]	Enrollment as of March 31, 2022[b]	Cross-site evaluation enrollment as of March 11, 2022
Alabama	265	149	85
Alaska	70	63	55
Delaware	40	36	31
Florida	72	38	20
Illinois	240	357	50

[23] Per research literature in this area, children in utero are understood to be subject to the services received by the adult, particularly medications for opioid use disorder (MOUD), which is a common treatment for pregnant women in RPG projects (Kraft 2018).

[24] Many RPG4 projects began enrollment before the start of the cross-site evaluation and continued beyond the end of cross-site data collection. Consequently, projects reported higher enrollment than the number enrolled in the cross-site evaluation through the Regional Partnership Grant-Evaluation Data System.

State of project	Target enrollment[a]	Enrollment as of March 31, 2022[b]	Cross-site evaluation enrollment as of March 11, 2022
Indiana	160	65	45
Iowa	135	101	50
Kansas	80	55	40
Kentucky	320	157	72
Missouri	288	282	187
Ohio	144	61	73
Oklahoma	315	83	77
Tennessee	200	296	83
Vermont	360	114	84
Washington	150	94	60
West Virginia	200	123	61
Wisconsin	72	58	35

[a] Target enrollment was reported in grantees' Semi-Annual Progress Reports (SAPRs), except enrollments for Florida, Indiana, and Oklahoma, which were provided by the Mathematica cross-site liaisons who provided evaluation TA to these projects. The target enrollment reflects the projects' target enrollment for families. However, two projects (Alabama and Kentucky) focused on enrolling adults.

[b] Enrollment for families as reported in the SAPR may be higher than the enrollment reported in the Regional Partnership Grant-Evaluation Data System given the different time periods. In the SAPR, projects reported total enrollment from the start of the project through March 31, 2022. In the Regional Partnership Grant-Evaluation Data System, enrollments were reported from March 1, 2019, through March 11, 2022.

Note: RPG4 = Regional Partnership Grants, Cohort 4; TA = technical assistance.

Source: SAPRs, April 2022; Regional Partnership Grant-Evaluation Data System data, March 1, 2019, through March 11, 2022.

D. Demographic and socioeconomic characteristics of adults and children enrolled in RPG4

RPG4 projects, which operated in different locations and with different focal populations, served families with a range of characteristics. Across RPG4 projects, most adult participants were female (83 percent); just over half were between the ages of 25 and 34 (52 percent), and almost three in five were never married at the time of enrollment (58 percent), as shown in Table II.5. More than three-quarters (78 percent) of the participants identified as White and non-Hispanic, and almost all (99 percent) spoke English as their primary language. About one-quarter of enrolled adults had some high school education; meanwhile, 39 percent had a high school diploma or GED, and about 21 percent had some college education.

Most of the adults enrolled in RPG4 projects faced some economic challenges (Table II.5). Only about one-third of the adults (34 percent) were employed, either full time, part time, or self-employed. Similarly, about 31 percent reported that their largest source of income came from wages or salary. The largest income source for about one-third of the enrolled adults (36 percent) was public assistance, such as Temporary Assistance for Needy Families (TANF);

the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC); and disability or Supplemental Security Income (SSI).

Table II.5. Characteristics of adults enrolled in RPG4 projects

Characteristic	Percentage	n
Gender[a]		
Male	17.1	222
Female	82.9	1,079
Age		
Younger than 18	0.1	1
18 to 24	14.0	182
25 to 34	52.3	680
35 to 44	25.4	330
45 to 54	5.1	66
55 or older	3.2	41
Mean	32.6	1,300
Race and ethnicity		
White, non-Hispanic	77.8	967
Black or African American, non-Hispanic	6.2	77
AIAN, non-Hispanic	9.4	117
Asian, non-Hispanic	0.2	2
Native Hawaiian or Other Pacific Island American, non-Hispanic	0.1	1
More than one race, non-Hispanic	2.6	33
Hispanic or Latino (any race)	4.4	56
Primary language[b]		
English only	99.4	1,238
Spanish only	0.4	5
Other	0.2	2
Highest education level		
8th grade or less	2.5	31
Some high school	24.5	305
High school diploma or GED	39.1	486
Some vocational or technical education	3.5	44
Vocational or technical diploma	1.6	20
Some college	19.8	246
Associate's degree	3.4	42
Bachelor's degree	3.5	44
Graduate-level schooling or degree	2.0	25
Employment status		
Full-time employment	21.9	274
Part-time employment	9.3	116
Self-employed	3.0	38

Characteristic	Percentage	n
Not employed but looking for work	25.7	322
Not employed and not looking for work, or unable to work	40.0	501
Largest income source		
Wages/salary	30.7	375
Public assistance (TANF, WIC, SNAP)	30.0	366
Retirement/pension/spousal survivor's benefits	1.0	12
Disability/SSI	5.7	70
Unemployment benefits	3.7	45
Child support	1.5	18
Support from other individuals	1.1	14
Child's benefits (SSI, survivor's benefits)	16.1	196
Other	2.0	24
None	8.3	101
Relationship/marital status		
Never married	57.6	717
Married	20.7	258
Divorced/widowed/separated	21.6	269

[a] Male and female were the only two gender responses available.

[b] The Regional Partnership Grant-Evaluation Data System captured one primary language from three options: (1) English only, (2) Spanish only, or (3) Other. Other languages included Albanian and Nepalese.

Note: AIAN = American Indian or Alaska Native; RPG4 = Regional Partnership Grants, Cohort 4; SNAP = Supplemental Nutrition Assistance Program; SSI = Supplemental Security Income; TANF = Temporary Assistance for Needy Families; WIC = Special Supplemental Nutrition Program for Women, Infants, and Children.

The total number of adults was 1,301. Missing data ranged from 0 (gender variable) to 80 (variable on largest income source) adults.

Source: Regional Partnership Grant-Evaluation Data System data, March 1, 2019, through March 11, 2022.

The profile of the children enrolled in RPG4 projects was more balanced in terms of gender and more racially mixed than the adults' demographic profile. As shown in Table II.6, there were almost equal percentages of male (54 percent) and female (46 percent) children. About 69 percent of the children were White and non-Hispanic; 10 percent were AIAN and non-Hispanic; 7 percent were multiracial and non-Hispanic; and 5 percent were Black or African American and non-Hispanic. More than half of the children (53 percent) were age 4 or younger. The average age of children enrolled in RPG4 projects was 5.

At the time of enrollment, more than three-quarters of the children (79 percent) were receiving Medicaid, which is the nation's public health insurance program for people with low incomes (Centers for Medicare & Medicaid Services, n.d.; Rudowitz et al., 2019). This finding was consistent with the economic challenges reported by adults who enrolled in RPG4 projects.

Across the RPG4 projects, most children were living in private residences (81 percent), though the primary adults who lived with the children varied. More than half of the children (57 percent) were living with at least one biological parent, which included living with a biological

mother only, biological father only, both the biological mother and father, or any biological parent along with another relative or other adult. About 24 percent of the children lived with a relative other than a biological parent, and 13 percent lived with a nonrelative foster parent only. Most children (85 percent) had lived in the same residence for at least the past 30 days. Residential stability has been shown to be a factor in reducing child maltreatment rates and is associated with long-term outcomes, including reunification for families with children in foster care (Davidson et al., 2019; Dworsky, 2014).

Table II.6. Characteristics of children enrolled in RPG4 projects

Characteristic	Percentage	n
Gender[a]		
Male	53.9	858
Female	46.1	735
Age		
Younger than 1	22.5	355
1 to 4	30.5	481
5 to 8	21.0	331
9 or older	26.0	411
Mean (years)	5.3	1,578
Race and ethnicity		
White, non-Hispanic	68.7	983
Black or African American, non-Hispanic	5.1	73
AIAN, non-Hispanic	10.4	149
Asian, non-Hispanic	0.3	4
Native Hawaiian or Other Pacific Island American, non-Hispanic	0.1	1
More than one race, non-Hispanic	7.2	104
Hispanic or Latino (any race)	4.4	56
Primary language		
English only	99.7	1,481
Spanish only	0.3	5
Other	0.0	0
Medicaid status		
Receiving Medicaid	79.3	1,263
Not receiving Medicaid	4.7	75
Don't know	16.0	255
Primary type of residence at enrollment		
Private residence	81.4	1,297
Treatment facility	9.0	143
Correctional facility or prison	0.1	2
Homeless or shelter	4.1	65
Group home	0.4	7
Other	0.2	3
Don't know	4.8	76

Characteristic	Percentage	n
Primary adults in household at enrollment		
Biological mother only	29.1	464
Biological father only	5.5	87
Both biological mother and father	12.4	197
Any biological parent and a relative or other adult	10.4	166
Other relative[b]	24.3	387
Nonrelative foster parent only	13.2	210
Other[c]	0.3	4
Don't know	4.9	78
Child lived in the same residence for the past 30 days		
Yes	84.6	1,348
No	6.3	100
Don't know	9.1	145

[a] Male and female were the only two gender responses available.

[b] This category includes situations in which children were living with foster parents who were their relatives.

[c] This category includes families in which the focal child was not in utero and did not live with any relative or a nonrelative foster parent.

Note: AIAN = American Indian or Alaska Native; RPG4 = Regional Partnership Grants, Cohort 4.

The total number of children was 1,593. Missing data ranged from 0 (gender variable) to 223 (race and ethnicity variable) children.

Source: Regional Partnership Grant-Evaluation Data System data, March 1, 2019, through March 11, 2022.

1. Characteristics of children born while families were enrolled in RPG4

A subset of 176 women were pregnant when they were enrolled into an RPG4 project. When a family exits RPG, projects report updated information on the pregnancies and birth outcomes if the child has been born by that time. Chapter III, Section D has more information on RPG case closure. At the end of cross-site data collection, RPG4 projects reported updated information for 156 pregnant women, including birth outcomes for 122 children. These results are in Table II.7.

Most children who were born after their mothers enrolled in an RPG4 project had normal birth weights (80 percent), and less than one-quarter (22 percent) were born prematurely (defined as before 37 weeks gestation).[25] About 14 percent of children were born with a very low birth weight (defined as less than 3 pounds, 5 ounces), and 39 percent spent time in the neonatal intensive care unit (NICU).[26] A low birth weight can have detrimental effects on infants' development of cognitive, biological, and motor skills (Hack et al., 1995; de Kieviet et al., 2009). Research also shows that children born prematurely have more neurodevelopmental issues than their peers, such as lower levels of academic achievement and executive function, and more behavioral issues (Aylward, 2014).

[25] In 2022, the preterm birth rate in the United States was 10.4 percent (U.S. Centers for Disease Control and Prevention, 2024).

[26] The reasons for spending time in the NICU and the amount of time spent there may or may not be related to a substance use issue during pregnancy.

Receiving a diagnosis of neonatal abstinence syndrome or of fetal alcohol syndrome is a risk factor to children. Children who are diagnosed with neonatal abstinence syndrome are more likely than children without that diagnosis to develop problems with their vision, motor skills, behavior, and cognition; to be at risk for child abuse or neglect and sudden infant death syndrome (Maguire, 2016); and to have educational disabilities (Fill, 2018). About 30 percent of children born after their mothers enrolled in RPG4 (n = 37) were diagnosed with neonatal abstinence syndrome, whereas none of the children received a diagnosis of fetal alcohol syndrome. All 37 of the children diagnosed with neonatal abstinence syndrome were exposed prenatally to opioids, and 92 percent of them had mothers who received medication for opioid use disorder during pregnancy.

Table II.7. Characteristics of children born after their mothers enrolled in RPG4

Characteristic	Percentage (unless otherwise noted	n
Child was born by the time of case closure		
Yes	78	122
No	14	22
Unknown	8	12
Mean age of child at case closure (months)	7.7	122
Child's gender (male)	52	64
Child's gender (female)	48	58
Child's birth weight		
Normal birth weight (5 pounds 8 ounces or more)	80	97
Low birth weight (3 pounds 5 ounces to 5 pounds 7.99 ounces)	14	17
Very low birth weight (less than 3 pounds 5 ounces)	0	0
Birth weight unknown	7	8
Child was born prematurely (less than 37 weeks gestation)		
Yes	22	27
No	74	90
Unknown	4	5
Child spent time in the NICU		
Yes	39	48
No	50	61
Unknown	11	13
Child given a diagnosis of a condition related to substance exposure		
Neonatal abstinence syndrome	30	37
Fetal alcohol syndrome	0	0
No diagnosis of substance exposure	63	77
Unknown	7	8

Characteristic	Percentage (unless otherwise noted	n
If child received a diagnosis of neonatal abstinence syndrome, child was exposed prenatally to opioids (n = 37)		
Yes	100	37
No	0	0
Unknown	0	0
If child exposed prenatally to opioids, mother received MOUD during her pregnancy (n = 37)		
Yes	92	34
No	3	1
Unknown	5	2

Note: MOUD = medication for opioid use disorder; NICU = neonatal intensive care unit; RPG4 = Regional Partnership Grants, Cohort 4.

Source: Regional Partnership Grant-Evaluation Data System data, March 1, 2019, through March 11, 2022.

2. Characteristics of enrolled families that did and did not receive services

Not all enrolled families participate in RPG services, so the characteristics of families that did and did not participate could differ within and across projects. Of the 1,003 families enrolled in RPG4 projects with service data, 947 (94 percent) had at least 1 service encounter. There were some statistically significant differences between children in families with at least one service encounter (participating families) relative to children in families that did not participate in any service (nonparticipating families). The profiles of adults in participating and nonparticipating families did not significantly differ from each other. As shown in Table II.8, children in participating families and nonparticipating families differed on their residence type, the adults in their household, and their residential stability. Specifically, projects were less likely to have this information for children in families that did not receive services, which is not surprising because if these families ultimately did not engage with services, projects may not have been able to collect all of the enrollment information. Children in participating families were also generally older than those in nonparticipating families.

Table II.8. Characteristics of children in RPG4, by families' service participation

Characteristic	Participating families		Nonparticipating families		Significance (*p*-value)
	Percentage	n	Percentage	n	
Primary type of residence at enrollment					$p < .001$
Private residence	89.5	1,196	84.4	65	
Treatment facility	7.0	94	5.2	4	
Correctional facility or prison	0.1	2	0.0	0	
Homeless or shelter	1.0	14	0.0	0	
Group home	0.4	6	0.0	0	
Other	0.1	1	2.6	2	
Don't know	1.7	23	7.8	6	

Characteristic	Participating families		Nonparticipating families		Significance (*p*-value)
	Percentage	n	Percentage	n	
Primary adults in household at enrollment					$p < .001$
Biological mother only	26.9	360	26.0	20	
Biological father only	5.1	68	1.3	1	
Both biological mother and biological father	13.6	182	3.9	3	
Any biological parent and a relative or other adult	11.8	158	10.4	8	
Other relative[a]	26.9	360	18.2	14	
Nonrelative foster parent only	13.1	175	31.2	24	
Other[b]	0.2	3	1.3	1	
Don't know	2.2	30	7.8	6	
Child lived in the same residence for the past 30 days					$p < .01$
Yes	89.3	1,193	79.2	61	
No	6.4	85	9.1	7	
Don't know	4.3	58	11.7	9	
Mean age (years)	5.6	1,325	3.9	77	$p < .01$

[a] This category includes situations in which children were living with foster parents who were their relatives.

[b] This category includes families in which the focal child was not in utero and did not live with a biological parent or foster parent.

Note: RPG4 = Regional Partnership Grants, Cohort 4.

The total number of children was 1,413. Missing data ranged from 0 (gender variable) to 178 (race and ethnicity variable). This analysis excluded cases from two projects that did not systematically provide services data to the cross-site analysis.

We conducted chi-squared tests for categorical variables and Welch's t-tests on means to assess differences between families that did and did not receive services. This table only shows the demographic characteristics on which the groups statistically differed ($p < .05$). There were no statistically significant differences on the adult or other child demographic characteristics presented in Tables II.5 and II.6.

Source: Regional Partnership Grant-Evaluation Data System data, March 1, 2019, through March 11, 2022.

E. Safety, permanency, and family functioning characteristics of adults and children enrolled in RPG4

Because the goal of the RPG program is to support families with substance use, trauma, and family functioning issues, the cross-site evaluation examines these characteristics at project enrollment. This provides information on where families are starting from as they begin the program. Chapter VII describes how their outcomes changed over time.

1. Adult substance use, recovery, and trauma

RPG projects seek to enroll families in which adults have or had substance use issues, based on various assessments or on current or past participation in substance use treatment (Box II.1). Recovery from substance use is a process of change that helps people improve their health and wellness and improve the quality of their life (SAMHSA, 2012).

Drug use was common among adults entering RPG4. As shown in Table II.9, the average drug use score on the Addiction Severity Index, Self-Report Form (ASI-SR) was 0.11 on a scale of 0 to 1, which was slightly higher than the average observed (0.10) from a nationwide sample of individuals in substance use treatment settings (McLellan et al., 2006). This national sample might be considered comparable to the focal population for the RPG program. The RPG4 mean score for alcohol use of 0.05 was markedly lower than the national mean of 0.22 in this study.

More than one-third of enrolled adults had drug or alcohol severity scores that suggested high severity of use (a severity score for drug or alcohol use that was above the average observed in McLellan et al. [2006]). Only 9 percent of adults were categorized as having this level of severity for alcohol use, but 27 percent were in the high-severity category for drug use.

Box II.1. Measures of outcomes in the adult recovery domains

The cross-site evaluation used the Addiction Severity Index, Self-Report Form (ASI-SR) to measure the extent and severity of substance use by adults enrolled in RPG4. Along with indicating the use of alcohol and other drugs, the ASI has been shown to be predictive of SUD (Rikoon et al., 2006). However, the results from the instrument itself are not sufficient to establish this diagnosis, and they were not used for that purpose in the cross-site evaluation.

As another indicator of substance use issues, the cross-site evaluation team examined whether enrolled adults had received publicly funded treatment for substance use. The team assessed this using administrative data that grantees obtained from their state or local substance use treatment agencies.

The Trauma Symptoms Checklist-40 (TSC-40), an optional measure, assesses adult trauma symptoms (Briere & Runtz, 1989). Appendix G includes detailed descriptions of the ASI-SR and TSC-40. ◢

Table II.9. Substance use in the 30 days before enrollment in RPG4

Baseline scale	RPG4 sample size	RPG4 sample mean score (SD)	National sample mean score (SD)[a]	Percentage of adults in high severity category in RPG4[b]
Drug use	841	0.11 (0.16)	0.10 (0.13)	27
Alcohol use	850	0.05 (0.12)	0.22 (0.25)	9
Any drug or alcohol use	829	n.a.	n.a.	32

[a] As reported in McLellan et al. (2006), which focused on a nationwide sample of individuals in treatment settings for SUD. Higher scores on the ASI-SR scales represent higher severity ratings.

[b] High-severity drug or alcohol use was defined for the cross-site evaluation as a scale score on the ASI-SR that was above the national mean. The calculated percentage of adults in the high-severity category was relative to the number with complete data for a given type of substance use.

Note: ASI-SR = Addiction Severity Index, Self-Report Form; n.a. = not applicable; RPG4 = Regional Partnership Grants, Cohort 4; SD = standard deviation; SUD = substance use disorder.

About two-thirds (66 percent) of families enrolled in RPG4 had an adult complete the ASI-SR (n = 869). The sample sizes ranged from 829 to 850 because of item nonresponse.

Source: Administration of the ASI-SR at RPG4 enrollment, including data submitted to the cross-site evaluation through March 11, 2022.

An indicator of past or current SUD is participation in substance use treatment. More than one-third (37 percent) of adults in RPG4 had been in publicly funded substance use treatment in the year before they enrolled in RPG4 (not shown). Of those 216 adults, 38 percent completed at least one treatment program. Looking at lifetime data, as defined in Box II.2, more than half (55 percent) had been in at least one treatment program during their lifetime, and 53 percent had completed at least one treatment program (at the time of enrollment). However, only 8 grantees (of 17) collected the administrative data, so these data do not represent the entire population of adults from all the grantees. In addition, the administrative data only covered publicly funded participation in substance use treatment, not individual enrollment in private-pay settings, so the data might undercount the number of participants who engaged in treatment before enrolling in RPG4 projects.

Box II.2. Lifetime data

For three outcome measures (participation in adult substance use treatment; child safety; and permanency), grantees submitted data on the lifetime of all people in a case—that is, children (from birth through the end of the grant) and adults (from age 18 through the end of the grant).

However, only a subset of grantees submitted these lifetime data. Of the 17 RPG4 grantees, 8 grantees submitted lifetime data on adult SUD treatment, and 14 grantees submitted lifetime data on child safety and permanency.

The analyses in this chapter include the focal children and the recovery domain adults (defined in Box I.2). Appendix F includes findings from the sensitivity analyses that included all children and all adults. ◢

Results from the 2020 National Survey on Drug Use and Health showed that only 4 million of the 40.3 million adults who had a SUD, about 10 percent, received substance use treatment (SAMHSA, 2021). Thus, as a whole, adults in RPG4 had been enrolled in substance use treatment at rates much higher than those for the average adult population or high-risk sample as reported in McLellan et al. [2006].

Experiences of trauma—defined as events that are perceived as physically or emotionally harmful and have lasting effects on an individual's well-being—are strongly predictive of later substance misuse (National Child Traumatic Stress Network, 2008; SAMHSA, 2014). A recent analysis of 2019-2020 Behavioral Risk Factor Surveillance System (BRFSS) data found that up to 54 percent of heavy drinking and 53 percent of illicit drug use in adulthood is attributable to adverse childhood experiences (Peterson et al., 2023). The adults in RPG4 projects that used the Trauma Symptoms Checklist-40 (TSC-40; an optional measure) to collect data on trauma had an average score on trauma symptoms of 26 on a scale of 0 to 120, indicating that, on average, adults experienced some post-traumatic symptoms. However, they had fewer symptoms than adults in an earlier study of 240 women enrolled in substance use treatment (Tracy et al., 2012). The average scores in that study were about 1.5 times the average scores of adults in RPG4.

2. Family functioning at enrollment

Box II.3 describes measures used to assess adults' depressive symptoms and attitudes about parenting, two factors that can affect family functioning. At RPG4 entry, adults had a mean score for depressive symptoms (10.6) that was higher than the mean score of 5.7 in a representative sample of parents of children in Head Start in the 2014 cohort of the Family and Child Experiences Survey (FACES) (Aikens et al., 2017). Families in Head Start represent a reasonable comparison for families in RPG, as both programs serve families with low incomes that have young children; however, families in Head Start do not necessarily have the same risk factors for child welfare involvement.[27] (Although RPG does not specifically focus on serving families with low incomes, a large proportion of families that enroll face economic challenges, as described earlier in this chapter.) The percentage of adults in RPG4 who had severe depressive symptoms, as measured by the Center for Epidemiologic Studies Depression Scale (CES-D), was also higher than the percentage for adults in FACES (30 percent versus 11 percent).

Box II.3. Standardized instruments used to assess family functioning

The cross-site evaluation uses the Center for Epidemiologic Studies Depression Scale (CES-D) (Radloff, 1977) to measure depressive symptoms, and uses the Adult Adolescent Parenting Inventory (AAPI-2) (Bavolek & Keene, 1999) to measure attitudes about parenting and child-rearing. Appendix F includes detailed descriptions of the CES-D and AAPI-2. ◢

When asked questions about parenting and child-rearing, adults enrolled in RPG4 scored above the national mean in all five constructs, such as inappropriate expectations and lack of empathy for the child (Table II.10). A higher score means that parents expressed more negative attitudes. Adults in the high-risk category for a construct expressed attitudes suggesting they were at risk of maltreating their children. About 16 percent to 40 percent of adults enrolled in RPG4 were in a high-risk category, depending on the parenting attitude that was being measured. The highest proportions of adults at risk were at risk because of their attitudes on lack of empathy for the child and oppressing the child's independence.

[27] Both studies used the short form of the Center for Epidemiologic Studies Depression Scale (Ross et al., 1983).

Table II.10. Caregivers' parenting attitudes at enrollment in RPG4

Parenting attitudes	RPG4 sample size[a]	RPG4 sample mean score (SD)	National mean score (SD)[b]	Percentage of adults in high-risk category in RPG4	Percentage of adults in high-risk category in the national sample
Inappropriate expectations for child	922	6.1 (1.6)	5.5 (2)	16	16
Lack of empathy for child	922	6.8 (1.9)	5.5 (2)	40	16
Treats child like an adult peer, not a child	922	5.8 (1.9)	5.5 (2)	17	16
Oppresses child's independence	922	6.0 (2.1)	5.5 (2)	27	16
Values corporal punishment	922	5.8 (1.7)	5.5 (2)	16	16

[a] Sample sizes vary due to item nonresponse.

[b] National means and SDs for the AAPI-2 are presented in the scoring manual for the instrument (Bavolek & Keene, 1999). The scales are transformed so that higher scores always indicate negative parenting attitude.

Note: AAPI-2 = Adult Adolescent Parenting Inventory; RPG4 = Regional Partnership Grants, Cohort 4; SD = standard deviation.

Parenting attitudes were assessed using the AAPI-2.

Source: Administration of the APPI-2 at enrollment, including data submitted to the cross-site evaluation through March 11, 2022.

3. Child safety and permanency before enrollment

The RPG program aims to serve families with children who are in or at risk of out-of-home placements. However, different projects intervene with those families at different points. For example, some RPG4 projects enrolled children who were at risk of becoming involved with the child welfare system, whereas other projects enrolled children who were the subject of a substantiated report of child maltreatment and removed from the home.

RPG4 projects asked the state or local child welfare agency for data on maltreatment, removals, and reunifications. Box II.4 describes the evaluation's measures of child

Box II.4. Measures of child safety and permanency

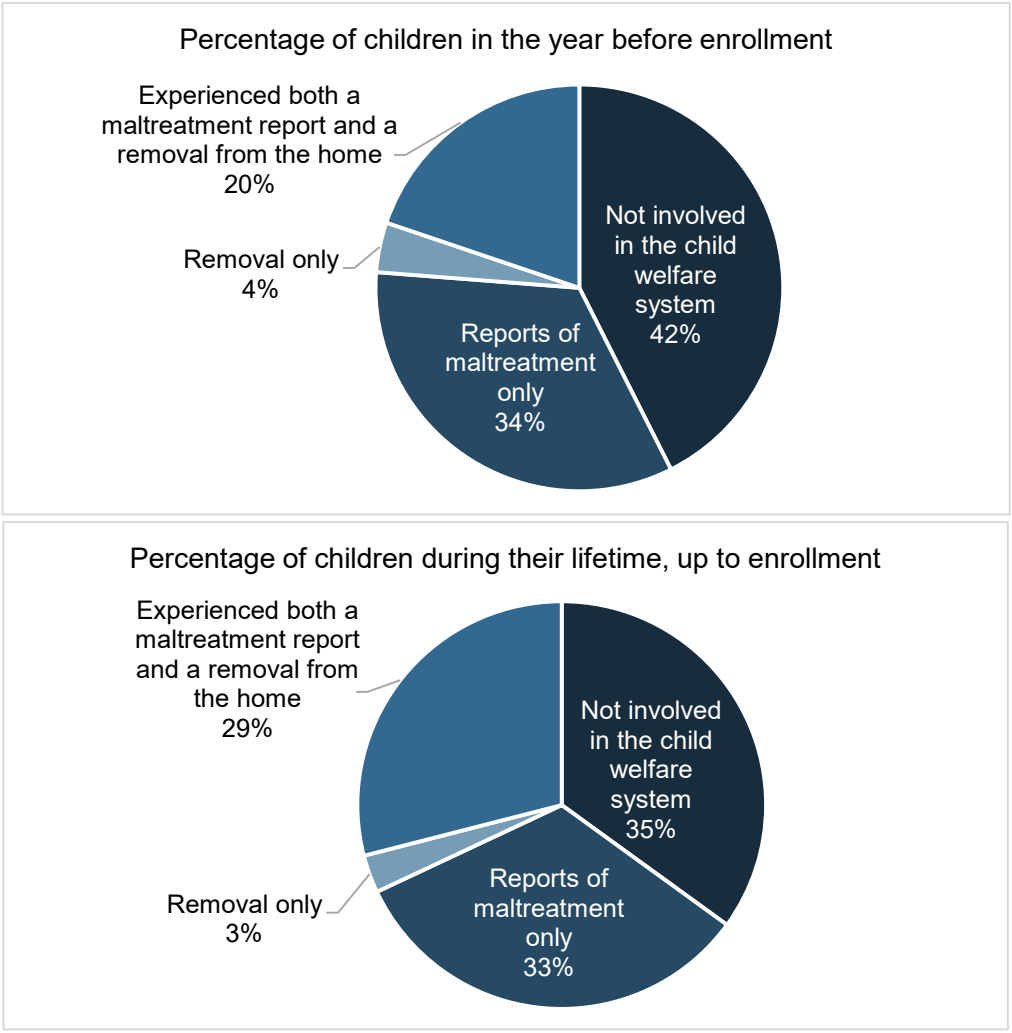
The cross-site evaluation categorized reported maltreatment as either substantiated or not substantiated. The substantiated category included investigations that CPS classified as substantiated (the report was supported or founded as defined by state law or policy [HHS, 2020a]) or indicated (could not be substantiated, but there was reason to suspect that the child was maltreated or at risk of being maltreated). The category of not substantiated included (1) unsubstantiated, (2) other (such as closed with no finding), or (3) alternative response (some states use this designation for a report that was not investigated but was assigned to an alternative track for CPS).

The data on permanency revealed how many children were removed from their homes in a given length of time before enrolling in RPG4 (that is, in the year before RPG4 enrollment or at any point during their lifetime up until enrollment) and where they were placed. For children who exited the foster care system during these periods, the data showed whether they were reunified with their parents or were in another permanent living situation, such as with an adoptive family. ◢

safety and permanency. Fifteen of 17 RPG4 projects submitted safety and permanency data for at least 1 child in each family.

Most children served by RPG4 were involved with the child welfare system before their family enrolled in RPG. Referring to Figure II.1, 57 percent of the children who were enrolled in RPG4 had been involved in the child welfare system in the year before they entered RPG4; this includes 24 percent who had been removed from their homes. Two-thirds (65 percent) of children had been involved in the child welfare system during their lifetime. About one-third of children had a report of child maltreatment, but were not removed from their home, during their lifetime.

Figure II.1. Children with reports of child maltreatment and/or removals from home in the year before enrollment in RPG4 or during their lifetime up to enrollment



[a] The cross-site evaluation defines involvement in the child welfare system with language from the Child Welfare Information Gateway (2013), which describes a report of suspected child abuse or neglect as the way most families become involved in the local child welfare system.

Note: RPG4 = Regional Partnership Grants, Cohort 4.

Statistics are based on 899 children in 15 projects that submitted both safety and permanency data for the year before enrollment and lifetime data as of enrollment. Percentages might not sum to 100 due to rounding.

Source: Administrative records from state or county child welfare agencies that were obtained by the grantees and submitted to the cross-site evaluation through March 11, 2022.

At RPG4 entry, more than half (54 percent) of the enrolled children had been the subject of at least one report of maltreatment in the previous year; categories of maltreatment are defined in Box II.5. Thirty-two percent of children were the subject of reports that were not substantiated, and 31 percent were the subject of substantiated reports (Table II.11). The rate of maltreatment in the year before enrollment was higher than the national incidence of maltreatment reports – 4.0 percent of U.S. children in 2021 (HHS, 2023a).

Box II.5. Categories of child maltreatment

Abuse is defined as any recent act that results in death, serious physical or emotional harm, or sexual abuse or exploitation, or an act that presents an imminent risk of serious harm to the child.

Neglect is defined as any recent failure to act on the part of a parent or caregiver that may result in any of the same types of harm or that presents an imminent risk of serious harm to the child.

Other maltreatment is defined as an instance of maltreatment that is not easily categorized as abuse or neglect. Examples vary by state but include threats of abuse or neglect (rather than actual abuse or neglect), abandonment, or the presence of illegal drugs in a child's body (HHS, 2023a). ◢

Child maltreatment can take the form of abuse and neglect or other experiences that are not as easy to categorize; categories are detailed in Box II.5. Table II.11 shows that for the children enrolled in RPG4, neglect was the most reported category, both in the year before RPG4 enrollment (34 percent) and during their lifetime (42 percent). The second most common type of maltreatment was abuse (23 percent in the year before and 29 percent during their lifetime). Other maltreatment was least prevalent (18 percent in the year before and 22 percent during their lifetime).

A relatively smaller proportion of children had been removed from their homes before enrolling in RPG4, but still were removed from their home at rates markedly higher than the national average. As shown in Table II.12, 24 percent and 32 percent of children had a report and were removed from their home in the year before RPG4 enrollment and during their lifetime, respectively. In comparison, less than 1 percent of children in the United States entered foster care in 2021 (HHS, 2022a).[28] On average, children had between two and three out-of-home placements (for example, foster homes, group homes, or relative care) in the year before RPG4 enrollment and during their lifetime. In 2021, of the children placed into foster care, the percentage of children with 3 or more placements ranged from 7.9 percent to 31.8 percent across states (HHS, 2022b).

[28] Estimate calculated from the number of children entering foster care in 2020 (216,838) and the total estimated number of children in the United States in 2020 (73,368,194), based on a report by the Adoption and Foster Care Analysis and Reporting System.

Table II.11. Reports of maltreatment for children in the year before enrollment in RPG4 and during their lifetime as of enrollment

Type of maltreatment	In the year before enrollment		During lifetime, up to enrollment	
	Percentage of children with reports[a]	Number of children with reports	Percentage of children with reports[a]	Number of children with reports
Reports of any maltreatment (abuse, neglect, or other)	54	483	62	561
Reports of maltreatment that were substantiated	31	281	39	347
Reports of maltreatment that were not substantiated	32	290	41	369
Reports of abuse[b]	23	210	29	263
Other[c]	9	80	11	97
Reports of neglect[d]	34	305	42	375
Other[c]	7	65	9	77
Reports of other maltreatment	18	164	22	201

[a] Children may have been the subject of more than one report of maltreatment; therefore, the same child could be included in more than one major row in this table.

[b] This category includes physical, sexual, psychological, and emotional abuse.

[c] This category includes reports that received alternative responses or reports where reasons were unknown, or reports for children who were not the subject of an allegation but lived in a household that received a CPS response for another child or other children in the household.

[d] Failure to provide needed, age-appropriate care; includes medical neglect.

Note: CPS = child protective services; RPG4 = Regional Partnership Grants, Cohort 4.

Safety data include all children in each case. Sample sizes are based on the subset of 15 projects that submitted the data for the year before enrollment and the lifetime data as of enrollment. The percentages are based on 899 children who had enrolled in the 15 projects. Reports that were not substantiated included those that were unsubstantiated or had other or alternative responses; Box II.4 has definitions. Children can have reports in multiple categories, so percentages will not add to 100.

Source: Administrative records from state or county child welfare agencies that the grantees obtained and submitted to the cross-site evaluation through March 11, 2022.

Foster care is not intended to be a permanent solution for a child. The goal is to find a permanent, stable, and safe home through, for example, family reunification or adoption. A permanency outcome is defined as reunification, adoption, or guardianship. Only 3 percent of children who had been removed from their home in the year before they enrolled in RPG4 had achieved permanency during the same period (Table II.12). All children who achieved permanency in the year before RPG enrollment did so through reunification with their families (results not shown). One-fifth (20 percent) of children enrolled in RPG who had been removed from their home had achieved permanency during their lifetime. Almost all children achieved permanency through reunification (19 percent); the other 1 percent either achieved permanency through adoption or guardianship, or reunification was no longer the goal in their situation (results not shown).

Table II.12. Out-of-home placements of children in the year before enrollment in RPG4 and during lifetime as of enrollment

Out-of-home placement and permanency	In the year before enrollment			During lifetime up to enrollment		
	Sample size	Mean (SD)	Percentage of children	Sample size	Mean (SD)	Percentage of children
Removed from home	899	n.a.	24	899	n.a.	32
Number of placements[a]	214	2.2 (1.5)	n.a.	288	2.5 (1.9)	n.a.
Achieved permanency	214	n.a.	3[b]	288	n.a.	20[c]

[a] Based on (1) 214 children who were removed from the home and placed at least once during the year before they enrolled in RPG4, or (2) 288 children who were removed from the home and placed at least once during their lifetime as of enrollment.

[b] Percentage of children who were removed from the home and achieved permanency in the year before they enrolled in RPG4.

[c] Percentage of children who were removed from the home and achieved permanency during their lifetime up to enrollment in RPG4.

Note: n.a. = not applicable; RPG4 = Regional Partnership Grants, Cohort 4; SD = standard deviation.

Permanency data include all children in each case. Sample sizes are based on the 15 projects that submitted the data for the year before enrollment and on the lifetime data as of enrollment. All children in the sample who achieved permanency in the year before enrollment did so by being reunified with their families. Projects did not seek to enroll adoptive families or families of children who had been placed in guardianship.

Source: Administrative records from state or county child welfare agencies that the grantees obtained and submitted to the cross-site evaluation through March 11, 2022.

4. Child well-being at enrollment

Maltreatment can have lasting implications for children (Institute of Medicine & National Research Council, 2013). Children's emotional and behavioral problems might be associated with their caregiver's substance use (Behnke & Smith, 2013), the caregiver's well-being, and parenting skills (Neece et al., 2012). The RPG program not only aims to maintain or increase children's safety and permanency, but also to improve their well-being. Therefore, RPG4 projects collected data on children's emotional and behavior problems and sensory processing. Box II.6 describes how well-being was assessed.[29]

Box II.6. How did projects assess children's well-being?

The cross-site evaluation did not collect data from the children in RPG4. Instead, the evaluation relied on reports from the caregiver most familiar with the child. Projects assessed children's well-being by administering the Child Behavior Checklist and the Infant/Toddler Sensory Profile to an adult in each family. To avoid overburdening projects and families, the cross-site evaluation requested such data on only the focal child in each family. Appendix F defines and describes those instruments in detail. ◢

Compared with a national sample of children, focal children in RPG4 demonstrated more emotional and behavioral problems and a higher total amount of problem behaviors. Total problems are a combination of emotional, behavioral, and other problems. Table II.13 shows that the mean scores of emotional, behavioral, and total

[29] The terms "emotional problems" and "behavioral problems" are taken directly from the names of the scales in the standardized instrument used to measure child outcomes (Achenbach & Rescorla, 2000, 2001).

problems (55.0, 55.2, and 55.6, respectively) for focal children at RPG4 entry were higher than the national mean of 50. The percentages of children in RPG4 who were categorized as being at high risk for these problems (26 percent, 28 percent, and 29 percent for emotional, behavioral, and total problems, respectively) were also higher than the 10 percent in the national sample (Achenbach & Rescorla, 2000, 2001).

Table II.13. Child well-being at enrollment in RPG4

Measure of child well-being	RPG4 sample size[a]	RPG4 sample mean score (SD)	National sample mean score (SD)	Percentage of children in high-risk category in RPG4	Percentage of children in high-risk category in the national sample
Emotional, behavioral, and other problems					
Emotional problems	360	55.0 (12.2)	50 (10)	26	10
Behavioral problems	361	55.2 (12.5)	50 (10)	28	10
Total problems	360	55.6 (12.9)	50 (10)	29	10
Sensory processing[b]	262	n.a.	n.a.	19	32

[a] The sample sizes vary by measure because caregivers reported on different subsets of children depending on the child's age. For example, the Infant/Toddler Sensory Profile (ITSP) has a narrow age range (birth to 36 months), so a small subset of children has data for that measure.

[b] The RPG4 sample and national sample mean and SD for sensory processing were not reported in the table because they were not easily interpreted. Scores with either low or high values indicate under-sensitivity or oversensitivity, both of which are problematic.

Note: n.a. = not applicable; RPG4 = Regional Partnership Grants, Cohort 4; SD = standard deviation.

The cross-site evaluation collected data from one focal child in each case. Sensory processing was assessed using the ITSP; emotional and behavioral problems were assessed using the Child Behavior Checklist (CBCL). Higher scores on the CBCL represent more problems. Fourteen projects submitted the ITSP data, and 13 projects submitted the CBCL data.

Source: Administration of standardized instruments at RPG4 enrollment, including data submitted to the cross-site evaluation through March 11, 2022.

Prenatal substance exposure can affect a child's sensory processing (Chasnoff et al., 2010). At the time of enrollment in RPG4, focal children scored better on sensory processing (being over- or under-responsive to stimuli), on average, than a national sample of children. The percentage of focal children in RPG4 who were in the high-risk category for sensory processing at RPG4 entry (19 percent) was also lower than the 32 percent in the national sample, as seen in Table II.13.

III. SERVICES RECEIVED BY FAMILIES ENROLLED IN RPG4 PROJECTS

Each RPG4 project designed services to capitalize on its resources and fulfill the needs of its community and focal population. Therefore, the number and types of services available were varied based on the focus on each project. For example, some projects offered a few services to all participants, whereas others offered an array of services tailored to each individual participant. Some grantees designed their projects around a structured curriculum or program model, and others used less structured approaches. Although all RPG4 projects are individually designed, many have elements in common. For example, several projects focused on providing substance use treatment, whereas others focused on strengthening families.

This chapter describes the services received by families enrolled in RPG4 projects between March 1, 2019, and March 11, 2022. During this time, 15 of the 17 RPG4 projects reported data on nearly 42,000 service encounters with more than 900 families. Projects reported data on all services funded by the RPG program and on core services considered fundamental to the project but not funded by RPG. Section A provides an overview of the services, including which services families received, how the services changed from projects' original plans, how engaged participants were in the services, and who provided the services to families. Section B describes patterns in service delivery by grouping RPG4 projects that provided similar services. Section C profiles the services that families received within these project groups. Lastly, Section D describes the characteristics of families when they exit RPG services.

The findings have two key limitations. First, most families enrolled in RPG4 attended some services that the cross-site evaluation did not track. Projects typically referred families to services beyond those reported to the cross-site evaluation. For example, projects might refer families to programs or agencies outside the RPG4 project and partnership for needs such as employment assistance, health care, or housing. Thus, this report does not describe every service received by families in RPG4 that might support adult or child outcomes. Second, 2 of the 17 RPG4 projects did not submit usable service data to the cross-site evaluation for any of their families. Therefore, these analyses do not represent the experiences of the families enrolled in those projects.[30] Also, one project was able to report on only a subset of its core and funded services. Despite these limitations, the information in this chapter largely reflects the services that families participated in while enrolled in an RPG4 project. The cross-site evaluation team worked closely with the RPG4 projects to support their data collection and reporting. Although there might be some instances of missing or incomplete data, the cross-site evaluation team has no reason to believe that there were systematic data quality issues that would alter the conclusions presented in this chapter.

[30] These two projects did not systematically collect service data across families or service types (for example, they reported on services for some but not all families), so the cross-site evaluation excluded their data from the analyses.

A. Overview of services

Because each project can design its own set of services, families that enrolled in RPG4 projects participated in different types and amounts of services. Some RPG4 projects offered a range of primary and supportive services to families, whereas others used one or two specific program models. Even within a project, enrolled families had different experiences depending on their needs and situations. The information in this section highlights this diversity of experience across the RPG4 projects and families.

1. Participation

Nearly all families enrolled in RPG4 projects participated in services. Of the 1,003 families enrolled in RPG4 projects, 947 families (94 percent) attended at least 1 service encounter, and 916 families (91 percent) attended more than 1 service encounter. This finding was similar across projects. Each of the 15 RPG4 projects that reported service data served 85 percent or more of the families it enrolled. Five projects provided services to all enrolled families.

2. Service types

Most services (90 percent) delivered to RPG4 families were primary services, meaning they were central to the goals of the RPG program and delivered the main content of each project. Nearly all families (99 percent) that enrolled in services received one or more of the five primary services, as shown in Table III.1.

Across RPG4 projects, most service encounters were either: (1) case management or service coordination, or (2) therapy or counseling services. Nearly 80 percent of families participated in case management services, and more than half (54 percent) of them participated in therapy or counseling services. These two service types were the most common for all but three RPG4 projects.

Other primary services were not used as frequently. About 40 percent of families participated in mentoring services (provided by 8 RPG4 projects), and a similar percentage participated in parenting training or home visiting services (provided by 12 RPG4 projects). Few families (five percent) participated in support group or workshop services; only four RPG4 projects provided such services (which included peer support groups for substance use; anger and stress management workshops; and health education classes). Only one project provided these services to a majority (74 percent) of families. Typically, there were only a few encounters for these services, or they were used by a subset of the families enrolled in the project.

In addition to primary services, all projects provided some type of supportive services to families, as defined in Box I.2. Screening or assessments, the most common supportive services, were provided by 13 projects to about 40 percent of families that participated in RPG services. Staff administered screening and assessment services once near the time of enrollment, and these services were typically part of projects' service delivery plans for all enrolled families. Projects often provided other supportive services, such as transportation, medical care, or child care, to a subset of families with a specific need and not on an ongoing basis to all enrolled families.

More than half (59 percent) of families attended at least 1 supportive service, but supportive services made up only 10 percent of all service encounters. Three projects also provided housing in residential substance use treatment or supportive housing facilities to families while they were enrolled in RPG4.

Table III.1. Number and percentage of service encounters and percentage of families receiving services, by service type

Service type	Number of projects that reported service[a]	Number of service encounters	Percentage of service encounters	Percentage of participating families that received service[b]
Primary services	15	37,654	90	99
Case management or service coordination	15	14,824	35	79
Mentoring	8	5,712	14	40
Parenting training or home visiting program	12	3,743	9	39
Support group or workshop	4	644	2	5
Therapy or counseling	9	12,731	30	54
Supportive services	15	4,204	10	59
Child care	2	733	2	3
Court or legal	3	421	1	5
Employment training	3	275	1	4
Financial or material supports	2	103	<1	3
Housing[c]	3	n.a.	n.a.	11
Medical care or appointment	2	1,110	3	15
Medication for opioid use disorder	3	333	1	5
Screening or assessment[d]	13	785	2	39
Transportation	6	444	1	7

[a] Of the 15 RPG4 projects that reported service data.

[b] Of the 947 families that participated in services.

[c] Housing includes providing a residence to families, including residential treatment facilities and supportive housing. These services were typically provided for the duration of a family's enrollment in RPG services. Because families were in housing every day during that time period, projects only reported a service encounter for each family's first and last day in housing. One project that provided supportive housing did not report data indicating that all enrolled families received housing, even though this was the main service the project provided. Therefore, this is likely an underestimate of the percentage of families receiving housing services.

[d] Each RPG project offering screening or assessment services identified the specific tools that best served their needs, which included drug or alcohol screenings, needs assessments, and developmental screenings.

Note: n.a. = not applicable; RPG4 = Regional Partnership Grants, Cohort 4.
Service types were mutually exclusive.

Source: RPG-Evaluation Data System data, March 1, 2019, through March 11, 2022.

3. Program models

All but one RPG4 project used program models (that is, curricula or strategies) to guide some services (Box III.1). Only a few models were used by more than one or two projects. These included the Nurturing Parenting Programs (six projects), Motivational Interviewing (four projects), and Cognitive Behavioral Therapy (three projects). The Nurturing Parenting Programs are structured curricula that specify the content, format, and duration of parenting services, whereas Motivational Interviewing and Cognitive Behavioral Therapy are strategies integrated into other services.

Box III.1. Program models

Program models are the curricula and strategies that the RPG projects use to guide or structure their services. Some models have specific guidelines for administration, such as weekly 1-hour sessions with prescribed content for 12 weeks. Examples are curricula such as the Strengthening Families Program and Nurturing Parenting Programs. Program models can also be strategies or approaches that projects integrate into their services. Examples are Motivational Interviewing and Cognitive Behavioral Therapy. ◢

- **The Nurturing Parenting Programs** are about 30 different programs designed to improve parenting skills, with each focused on a focal population or family need (Family Development Resources Inc., 2022). The six RPG4 projects that used this program model implemented different versions of the program, such as a curriculum focused on adults in substance use treatment or recovery and a curriculum for pregnant women and mothers of young children. Nineteen percent of families took part in services that used one of the Nurturing Parenting Programs.
- **Motivational Interviewing** is a set of communication strategies designed to support behavior change. It has demonstrated positive effects on adult and child well-being (Motivational Interviewing Network of Trainers, 2019; Title IV-E Prevention Services Clearinghouse, 2019). It focuses on building an individual's internal motivation to change their behavior. Four projects incorporated Motivational Interviewing into several different types of services, such as therapy or counseling, mentoring, and case management. Seventeen percent of families attended services that used Motivational Interviewing.
- **Cognitive Behavioral Therapy** is an approach to psychological treatment that is focused on helping an individual develop coping skills, identify patterns, and change behavior (American Psychological Association, 2017). Three projects used this strategy, often in therapy or counseling and mentoring services focused on substance use treatment. Twelve percent of families attended services that incorporated Cognitive Behavioral Therapy.

4. Service dosage

On average, families that received any service participated in that service for 7 months (28 weeks). During this time, they attended, on average, about 44 hours of services in 44 service encounters.[31, 32]

The service families received the highest dosage of depended on the measure being considered (Box III.2). For each service type analysis, the cross-site evaluation only included families that participated in that service type. For that reason, each analysis included different families. Families tended to participate in case management services longer than the other service types, as shown in Table III.2, and they attended a high number of case management encounters (20 encounters, on average). However, these services had a relatively low intensity (17 hours, on average). The most intensive service type, in terms of number of hours and encounters, was therapy or counseling. Families that participated in therapy or counseling attended 28 hours of therapy or counseling across 26 encounters, on average.

Box III.2. Service dosage

Service dosage refers to the amount of services that families received. The cross-site evaluation measures dosage in two ways. The number of service encounters refers to the total number of service encounters a family had while enrolled in RPG. The hours of services received refers to the total hours of services for one family across all service encounters. The cross-site evaluation calculated dosage for families that participated in that service type but were no longer receiving services at the end of data collection. ◢

Supportive services were less intensive than primary services, so projects reported dosage for all supportive services as a whole. Families that received supportive services participated, on average, in nine hours of supportive services across eight encounters. Families that received housing through RPG4 projects lived in that housing for slightly more than three months, on average.

[31] This analysis included families that had participated in services and were no longer receiving services at the end of data collection.

[32] One project did not reliably report on the length of each service encounter, so it was excluded from the analysis of service hours received by families.

Table III.2. Average dosage of service among service participants, by service type

Service type	Percentage of participating families that received service[a]	Average weeks enrolled in service[b]	Average number of service encounters attended	Average number of service hours attended[c]
Primary services	99	27	40	39
Case management or service coordination	77	27	20	17
Mentoring	37	22	15	14
Parenting training or home visiting program	38	17	11	12
Support group or workshop	5	14	14	14
Therapy or counseling	52	21	26	28
Supportive services	59	16	8	9

[a] Of the families that participated in services and were no longer receiving services at the end of data collection.

[b] The number of weeks between a family's first and last service encounter.

[c] One project did not reliably report on the length of each service encounter, so it was excluded from this analysis.

Note: Service types were mutually exclusive. This table includes families whose case was closed or who had not received a service encounter within 90 days of March 11, 2022. Dosage calculations included only those families that participated in the service type.

Source: RPG-Evaluation Data System data, March 1, 2019, through March 11, 2022.

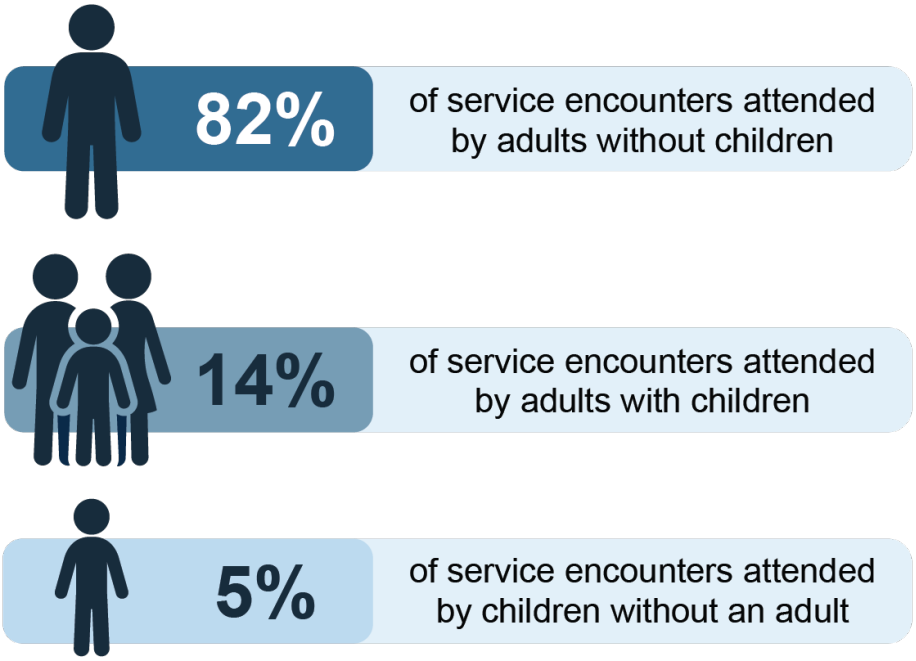
5. Service attendance

To improve children's well-being, as documented in the funding opportunity announcement for RPG4, most projects provided services to adults with children, including parents or caregivers. Adults attended 96 percent of all service encounters, almost always without a child present. Children and an adult in their family attended 14 percent of all service encounters, while 5 percent of encounters were with children and no adults. Children also attended fewer service encounters than adults did. On average, adults participated in 38 primary service encounters, whereas children participated in 11.[33] Figure III.1 shows adults' and children's attendance in services.

Even though fewer services were provided to children, more than half (61 percent) of all families that received services had a child participate in at least one primary service. Children who participated in services typically attended parenting or home visiting services with an adult. Adults and children attended 35 percent of all parenting or home visiting service encounters together. Children also attended 31 percent of supportive service encounters, including child care, screening or assessment, and transportation assistance. These findings suggest that services for children were focused on supporting parents' interactions with them or addressing a specific need for the family.

[33] This analysis included families that participated in services.

Figure III.1. Participation in services by adults and children



Note: Percentages do not sum to 100 due to rounding.

Source: RPG-Evaluation Data System data, March 1, 2019, through March 11, 2022.

6. Actual services compared to planned services

The services that the families received largely aligned with those that the RPG4 projects proposed in their grant applications. Most projects reported on all of the types of services they planned to offer, as shown in Table III.3. For 11 of the 15 service types, all projects that planned to offer the service used it with at least 1 family.

When projects did change their original plans for services, it was typically in response to the COVID-19 pandemic or to address an unmet need based on information reported by the projects. Twelve of the 15 RPG4 projects that provided service data indicated that they adapted services to deliver them in a virtual or hybrid format. These projects used telecommunication and telehealth platforms to deliver services that they typically offered in person, such as therapy sessions or home visiting programs. Two projects reported that they placed additional restrictions on their residential services while keeping these services open. Some projects added services or shifted the program models they offered to align with families' needs. Three projects added services to fill a specific need, such as parenting training for fathers or therapeutic services for children.

Three projects changed their program models; two projects made the change at the start of the grant. One of these projects switched models to align with the state's focus on a particular therapy model for infants. (The state provided training and support to implement this model.) The other project dropped a model because of its high cost and lack of available training and swapped another model because of concerns from the developer about evaluation. A third project also changed program models later in the grant because of a lack of training availability.

Table III.3. Number of RPG4 projects offering services and reporting their use, by service type

Service type	Number of projects planning to offer service type[a]	Number of projects reporting use of service type	Percentage of projects reporting use of service type among those that planned to
Primary services	15	15	100
Case management or service coordination	14	14	100
Mentoring	9	8	89
Parenting training or home visiting program	12	12	100
Support group or workshop	4	4	100
Therapy or counseling	10	9	90
Supportive services	15	15	100
Child care	2	2	100
Court or legal services	3	3	100
Employment training	3	3	100
Financial or material supports	2	2	100
Housing	3	3	100
Medical care or appointment	2	2	100
Medication for opioid use disorder	3	3	100
Screening or assessment[b]	13	13	100
Transportation	7	6	86

[a] Of the 15 RPG4 projects that reported service data. This count includes all projects that ever planned to offer the service type, including those that removed or added the service type during the grant period.

[b] Each RPG project offering screening or assessment services identified the specific tools that best served their needs, which included drug or alcohol screenings, needs assessments, and developmental screenings.

Note: RPG4 = Regional Partnership Grants, Cohort 4.

Service types were mutually exclusive.

Source: RPG-Evaluation Data System data, March 1, 2019, through March 11, 2022.

7. Participant engagement in services

Families were largely engaged in the RPG4 services they attended, according to the service providers. Service engagement is described in Box III.3.[34] On nearly all service encounters (94 percent) across projects, the service provider rated the participants as fully engaged in the service. Participants were largely engaged in all types of services they received. For each of the 5 primary service types, participants were fully engaged in at least 90 percent of their service encounters. In half the encounters where participants were not fully engaged in services, it was because life events or other issues distracted the participant. For another 25 percent of these encounters, the participants were not engaged because they felt tired or unwell.

Box III.3. Service engagement

Service engagement refers to participants' attention levels during an active involvement in the service. Participants may not be fully engaged in a service due to competing priorities, time constraints, or health issues, for example. For each service encounter, the service provider rated participants' level of engagement in the encounter as fully engaged, somewhat engaged, or not engaged. For encounters where participants were not fully engaged, the provider also reported the reasons for the lack of engagement. ◢

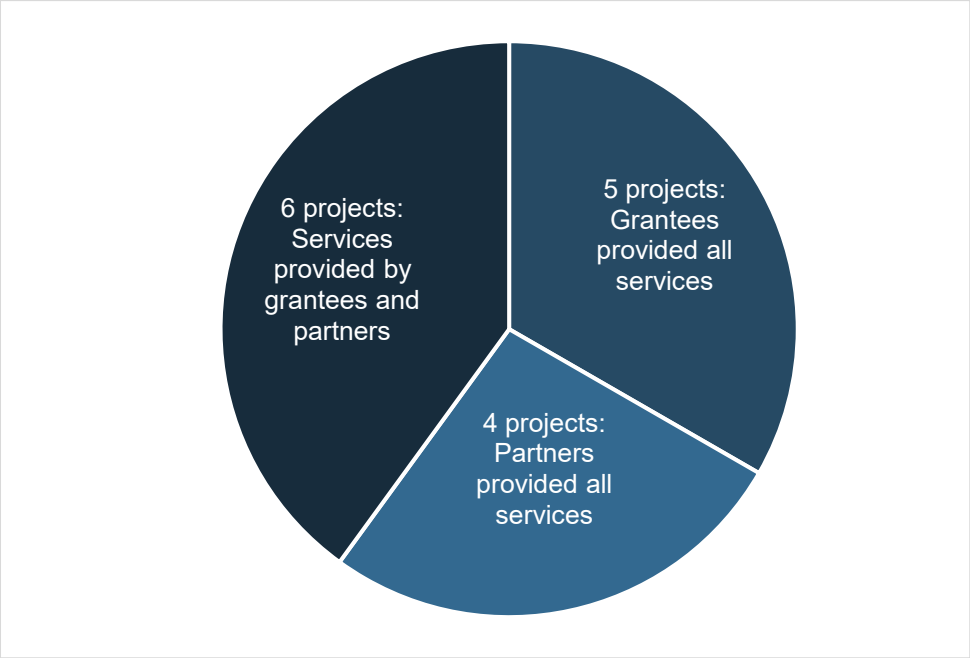
Most families stayed engaged throughout their time receiving services. Almost 9 in 10 families that attended more than 1 service encounter (88 percent) were described as engaged in their first and last encounters. Engagement in services changed for only a few families over time, with six percent of families becoming less engaged, and four percent of families becoming more engaged.

8. Service providers

The projects adopted different approaches to delivering services, with some grantees using their own staff to provide services, and others engaging their partners as service providers. These approaches to services, shown in Figure III.2, largely aligned with the grantee organization type. Some grantees, such as substance use treatment programs, were direct service providers, and partners referred families to the grantee's services. Other grantees, such as county health coalitions, coordinated services across partner organizations but did not provide services directly to families.

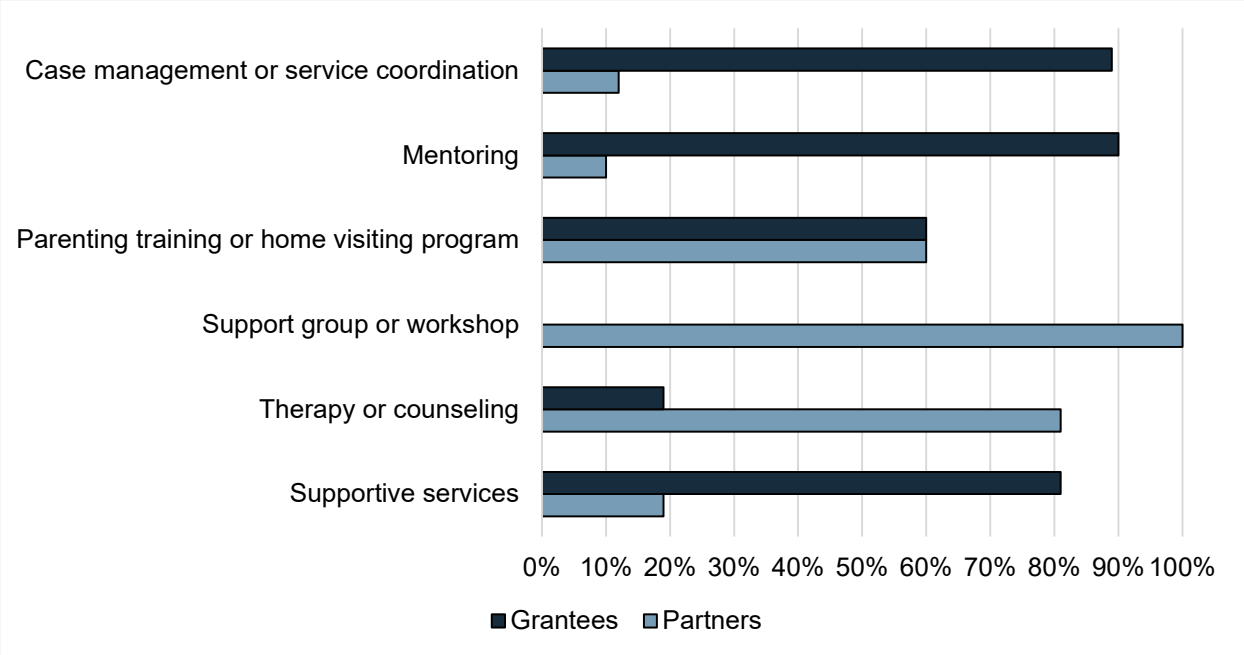
[34] One project did not reliably report on families' engagement in services, so it was excluded from the engagement analyses.

Figure III.2. Service providers



Source: RPG-Evaluation Data System data, March 1, 2019, through March 11, 2022.

Figure III.3. Proportion of service encounters provided by grantees and partners, by service type, for RPG4 projects in which both provided services



Note: RPG4 = Regional Partnership Grants, Cohort 4.

This figure includes the six RPG4 projects in which both the grantee and partner agencies provided services to families. More than one provider could be involved in providing each service encounter, so the percentage for grantee- and partner-provided services within a type might not sum to 100 percent.

Source: RPG-Evaluation Data System data, March 1, 2019, through March 11, 2022.

B. Use of latent class analysis to identify patterns in service use

As noted, projects offered different combinations of primary and supportive services that were designed to meet the needs of the families they served. There are a wide range of possible combinations of services, making it more difficult to understand the packages of services that RPG4 provided. The cross-site evaluation team used latent class analysis (LCA), a technique to create similar groups, to identify the patterns of services that families used. To identify these patterns, the LCA focused on the services that were provided to families rather than the services that projects planned for families.

1. LCA approach

The LCA approach grouped projects together if they were serving families that were participating in similar types of service encounters. The preliminary LCA model explored service characteristics such as service type, length of service, whether the service was provided in a residential facility, whether multiple families attended the service, whether the service was provided by a partner organization, and whether a child accompanied the adult. This process revealed a specified number of groups—or latent classes—at the family level. The model predicted which class each family was most likely to be in based on the family's characteristics. Each project then was assigned to the class to which most of its enrolled families belonged.

The final LCA model created groups largely based on service types as the most distinguishing feature of services provided. Three latent classes emerged from the LCA model:

1. **Class 1:** Eight projects that provided broad, peer-based services
2. **Class 2:** Five projects that focused on therapy or counseling services
3. **Class 3:** Two projects that provided parenting training or home visiting services.

Appendix C provides more detail about this process.

C. Profiles of services provided to families

Although the classes were based on the services that the projects provided to most enrolled families, not all families within the same class or project received the exact same type and number of services. The following profiles describe the service experiences of families within each class.

1. Class 1: Eight projects that provided broad, peer-based services

Box III.4 describes RPG4 projects in Class 1. They provided an array of service types that largely focused on addressing substance use, with peer recovery mentors providing about one-quarter of the services. The projects offered a broad range of services to families, including mentoring, therapy, and case management. Each of the eight projects in this class provided at least two different primary services, with six projects providing at least four of the five possible primary services. Ninety-five percent of families that were enrolled in projects in Class 1 participated in services, including at least one primary service encounter. Many families also received supportive services (45 percent) or referrals to additional services (42 percent).

Box III.4. Common Class 1 service characteristics: Broad, peer-based services (eight projects)

Services

- **Primary services:**[a] 87 percent of families received case management; 70 percent of families received mentoring; 52 percent of families received therapy or counseling; 34 percent of families received parenting training or home visits; and 10 percent of families received support group or workshop services.
- **Used a program model:** 45 percent of service encounters used a program model.
- **Program models:** Parent-Child Assistance Program was used in 25 percent of service encounters, Motivational Interviewing was used in 23 percent of service encounters, Cognitive Behavioral Therapy was used in 22 percent of service encounters, and Matrix Model was used in 19 percent of service encounters.
- **Focus areas:** Substance use (56 percent of service encounters), other areas including family crisis and court or legal services (31 percent of service encounters), and life skills (30 percent of service encounters) were the foci of service encounters in Class 1.
- **Types of referrals to other services:**[a] 42 percent of families received referrals, including to therapy or counseling (28 percent of referrals), parenting skills training (20 percent of referrals), SUD treatment (16 percent of referrals), and other services (29 percent of referrals).
- **Format:** 71 percent of service encounters were attended by individual families, and 29 percent of service encounters were attended by multiple families.
- **Housing:** Two projects provided housing.
- **Providers:**[b] 34 percent of service encounters were provided by partners, and 68 percent of service encounters were provided by grantees.
- **Peers:** Eight projects used peers to provide services (27 percent of service encounters).

Dosage

- **Average length of enrollment in services:**[c] 7 months
- **Average dosage of services:**[c] 66 hours and 62 service encounters
- **Average length of service encounter:** 71 minutes
- **Average time between enrolling in RPG4 and beginning services:** 5 days

People served

- **Received services:** 95 percent of families
- **Attendees:** 89 percent of service encounters attended by adults without children.
- **Service status:** 25 percent of families successfully completed services, 28 percent were still receiving services, and 47 percent did not successfully complete services.

[a] Of the families in Class 1 that participated in services.

[b] More than one person could provide a service encounter. Therefore, the percentages may sum to more than 100 percent.

[c] Of the families in Class 1 that had participated in but were no longer receiving services at the end of data collection.

Source: RPG-Evaluation Data System data, March 1, 2019, through March 11, 2022.

Case management and service coordination and mentoring were the most common services families in Class 1 received. All eight projects provided case management services, and all but one project provided mentoring services. Of the families in Class 1 that received services, 87 percent participated in case management services, 70 percent received mentoring services, and 64 percent participated in both services.

Relative to families in RPG4 projects overall, families enrolled in Class 1 projects received a large dosage of services. The average family attended 66 hours of services across 62 service encounters over 7 months. Most of these services were provided to adults, with 89 percent of service encounters attended by adults unaccompanied by children and 7 percent by adults with children. On average, adults in Class 1 attended 54 service encounters, and children attended 12 encounters.[35]

All eight projects in Class 1 used peer recovery mentors to provide services to families. Peers often have lived experiences similar to those of the families in RPG, such as experience with substance use issues or involvement in the child welfare system. Peers can support families' engagement in services, build trust with families, and reduce the stigma attached to parents with substance use issues by staff (National Center on Substance Abuse and Child Welfare, 2018). Some evidence suggests that integrating peers into services for families with substance use issues and child welfare involvement may improve child welfare outcomes, such as out-of-home placements and reunification (Hall et al., 2021; Huebner et al., 2021).

Ninety-one percent of families in Class 1 that participated in services received services from a peer. Peers provided more than one-quarter (27 percent) of all service encounters for this class. In addition to providing nearly all mentoring services, peers provided 24 percent of support group or workshop services, 16 percent of parenting training or home visiting services, 12 percent of case management or service coordination services, 9 percent of therapy or counseling services, and 8 percent of supportive services.

2. Class 2: Five projects that focused on therapy or counseling services

RPG4 projects in Class 2 primarily provided therapy or counseling services and case management, as shown in Box III.5. All five projects in this class provided case management services, and all but one project provided therapy or counseling services.[36] Of the 95 percent of families in Class 2 that participated in services, 90 percent attended case management services, 75 percent attended therapy or counseling services, and 67 percent attended both kinds of services. Most therapy service encounters in this class focused on mental health or substance use. In addition to case management and therapy services, 3 projects in this class provided parenting training or home visiting services, with about one-quarter (27 percent) of families in Class 2 attending this service.

[35] This analysis included families in Class 1 that participated in services.

[36] This project did not provide therapy or counseling services, but it is in Class 2 rather than Class 1 because most families did not receive services from a peer recovery mentor or other mentoring services. See Appendix C for more detail on how projects were assigned to classes.

Box III.5. Common Class 2 service characteristics: Therapy or counseling services (five projects)

Services

- **Primary services:**[a] 90 percent of families received case management; 75 percent of families received therapy; 27 percent of families received parenting training or home visiting; 3 percent of families received mentoring; and no families received support group or workshop services.
- **Used a program model:** 63 percent of service encounters used a program model.
- **Program models:** Wraparound was used in 38 percent of service encounters, Attachment, Regulation, and Competency Framework was used in 24 percent of service encounters, Solution-Based Case Work was used in 13 percent of service encounters, and Motivational Interviewing was used in 13 percent of service encounters.
- **Focus areas:** Mental health (55 percent of service encounters), substance use (42 percent of service encounters), and life skills (40 percent of service encounters) were the most common foci of service encounters.
- **Types of referrals to other services:**[a] 37 percent of families received referrals to other services, including SUD treatment (28 percent of referrals), therapy or counseling (28 percent of referrals), and other types (15 percent of referrals).
- **Format:** 92 percent of service encounters were attended by individual families, and 8 percent of service encounters were attended by multiple families.
- **Housing:** One project provided housing.
- **Providers:**[b] 21 percent of service encounters were provided by partners, and 79 percent of service encounters were provided by grantees.
- **Peers:** One project used peers to provide services (7 percent of service encounters).

Dosage

- **Average length of enrollment in services:**[c] 7 months
- **Average dosage of services:**[c, d] 21 hours and 30 service encounters
- **Average length of service encounter:**[d] 56 minutes
- **Average time between enrollment in RPG4 and beginning services:** 15 days

People served

- **Received services:** 95 percent of families
- **Attendees:** 64 percent of service encounters were attended by adults without children; 30 percent of service encounters attended by adults and children together.
- **Service status:** 41 percent of families completed services, 26 percent were still receiving services, and 33 percent did not complete services.

[a] Of the families in Class 2 that participated in services.

[b] More than one person could provide a service encounter. Therefore, the percentages may sum to more than 100 percent.

[c] Of the families in Class 2 that participated in but were no longer receiving services at the end of data collection.

[d] One project in Class 2 did not reliably report on the length of each service encounter, so it was excluded from the analysis of service hours received by families and the analysis of service length.

Source: RPG-Evaluation Data System data, March 1, 2019, through March 11, 2022.

Most families (87 percent) in Class 2 also participated in supportive services. However, as was the case for RPG4 projects as a whole, supportive services made up a relatively small proportion (16 percent) of all service encounters for this class. The average family in Class 2 attended six supportive service encounters.[37] About two-thirds of families that participated in services (67 percent) received at least 1 screening or assessment service, and 20 percent of families received medical care.

Some projects in Class 2 focused on providing services to adults, whereas others provided most services to children. For 2 projects, a child from almost all enrolled families attended a primary service encounter, and children attended 77 percent of the therapy or counseling service encounters, with or without an adult. For the other 3 projects, most services (82 percent) were provided to adults without children, including 86 percent of the therapy or counseling service encounters. Across the projects in this class, the average adult attended eight therapy service encounters, and the average child attended five therapy service encounters.[38]

3. Class 3: Two projects that provided parenting training or home visiting services

Projects in Class 3 provided parenting training or home visiting services to almost all enrolled families, but they rarely provided other primary services (Box III.6). Of the 90 percent of families in Class 3 projects that participated in services, all but 1 family (99 percent) attended parenting training or home visiting services. In addition, nearly half (47 percent) of families that participated in services received screening or assessment services, typically for 1 or 2 service encounters.

Each of these projects used one program model to deliver parenting training or home visiting services. One project used the Attachment and Biobehavioral Catch-Up intervention, a home visiting parenting curriculum delivered to families with children younger than age 2. The curriculum, which focuses on parenting skills training and education, is typically delivered by a trained coach in the family's home to adults and children together. The Attachment and Biobehavioral Catch-Up program includes 10 hourlong sessions delivered once a week (University of Delaware, 2017). On average, families in RPG4 attended 7 service encounters with this program model over 11 weeks, with each encounter lasting 50 minutes.[39]

[37] Of the families in Class 2 that participated in supportive services and were no longer receiving services at the end of data collection.

[38] Of the families in Class 2 that participated in therapy or counseling services.

[39] Of the families in this project that participated in Attachment and Biobehavioral Catch-Up and were no longer receiving services at the end of data collection.

Box III.6. Common Class 3 service characteristics: Parenting training or home visiting services (two projects)

Services

- **Primary services:**[a] 99 percent of families received parenting services; 5 percent of families received case management services; no families received mentoring services, support group or workshop services, or therapy or counseling services.
- **Used a program model:** 90 percent of service encounters used a program model.
- **Program models:** Attachment and Biobehavioral Catch-Up was used in 54 percent of service encounters; the Strengthening Families Program was used in 46 percent.
- **Focus areas:** Parenting was the focus of 92 percent of service encounters; life skills were the focus of 22 percent of service encounters.
- **Types of referrals to other services:**[a] Four percent of families received referrals to other services, including parenting skills training (40 percent of referrals), legal services (20 percent of referrals), therapy or counseling (20 percent of referrals), and other types (20 percent of referrals).
- **Format:** Just over half (54 percent) of service encounters were attended by individual families; 46 percent of service encounters were attended by multiple families.
- **Housing:** No projects provided housing.
- **Providers:**[b] Almost all service encounters (94 percent) were provided by partners; 6 percent of service encounters were provided by grantees.
- **Peers:** No projects used peers to provide services.

Dosage

- **Average length of enrollment in services:**[c] 3 months
- **Average dosage of services:**[c] 11 hours and 9 service encounters
- **Average length of service encounter:** 68 minutes
- **Average time between enrollment in RPG4 and beginning services:** 6 days

People served

- **Received services:** 90 percent of families
- **Attendees:** 81 percent of service encounters attended by adults and children together
- **Service status:** 45 percent completed services; 7 percent were still receiving services; 48 percent did not complete services

[a] Of the families in Class 3 that participated in services.

[b] More than one person could provide a service encounter. Therefore, the percentages may sum to more than 100 percent.

[c] Of the families in Class 3 that participated in but were no longer receiving services at the end of data collection.

Source: RPG-Evaluation Data System data, March 1, 2019, through March 11, 2022.

The other project in Class 3 used the Strengthening Families Program, a family-skills training program delivered to groups of families with children whose ages range from birth to 18. This program model includes some content delivered to adults and children separately and some content delivered to adults and children together (Kumpfer, 2020). The project trained community members to deliver a culturally responsive version of the program model. On average, families attended 10 service encounters of 90 minutes each over 11 weeks, compared with the model's recommended 14 sessions (each lasting two hours) over 14 weeks.[40]

Given the focus on parenting and family strengthening services, adults and children in Class 3 often participated in services together, in contrast with families in the other two classes. Almost all families (99 percent) had a child attend parenting training or home visiting services. Adults and children attended 81 percent of all service encounters and 86 percent of parenting training or home visiting service encounters together. Adults and children also received a similar dosage of services.

4. Summary of services across classes

Based on their use of the five primary service types and peer recovery mentors, the LCA grouped RPG4 projects that provided similar services to families. Most families participated in case management, particularly in Classes 1 and 2. However, case management was not included in the class names as a distinguishing service. Although case management was a prominent service, it was not typically offered as a stand-alone service, because the goal of case management services generally was to facilitate the provision of other services to meet a family's needs. All projects that provided case management services also provided at least one other primary service to families.

Families' experiences varied across these classes, as shown in Table III.4, in terms of the type and dosage of services received, which family members attended services, and who provided the services. Families in Class 1 participated in a large dosage of many service types, including mentoring services and services provided by peer recovery mentors, typically directed toward adults. Families in Class 2 participated in therapy or counseling that often focused on mental health or substance use. Families in Class 3 attended one of two parenting-focused program models that were delivered to adults and children together.

[40] Of the families in this project that participated in the Strengthening Families Program and were no longer receiving services at the end of data collection.

Table III.4. Key service characteristics, by class

	Class 1: Broad, peer-based services	Class 2: Therapy or counseling services	Class 3: Parenting training or home visiting services
Number of RPG4 projects	8	5	2
Most common primary services	Case management, mentoring	Case management, therapy or counseling	Parenting training or home visiting
Typically provided referrals to other services	Yes	Yes	No
Typical attendees	Adults without children	Adults without children, adults and children together	Adults and children together
Typical format	Individual and multiple families	Individual families	Individual and multiple families
Provided housing	2 projects	1 project	No projects
Average length of enrollment in services[a]	7 months	7 months	3 months
Average service dosage[a]	66 hours 62 service encounters	21 hours[b] 30 service encounters	11 hours 9 service encounters
Typical providers	Grantees, partners, peers	Grantees, partners	Partners
Proportion of families that completed services	25	41	45

[a] This analysis included families in each class that participated in but were no longer receiving services at the end of data collection.

[b] One project in Class 2 did not reliably report on the length of each service encounter, so it was excluded from this analysis.

Note: RPG4 = Regional Partnership Grants, Cohort 4.

Source: RPG-Evaluation Data System data, March 1, 2019, through March 11, 2022.

D. Families exiting RPG4 and completing services

Families enrolled in RPG might exit a project after they finish their services (referred to as RPG project completion) or they might drop out or be discharged by the project before completing the services. This section describes the proportion of RPG4 families that exited the projects and what RPG4 families looked like at case closure. Box III.7 provides details on the information that RPG4 projects reported on families when they exited the projects.

Box III.7. RPG case closure

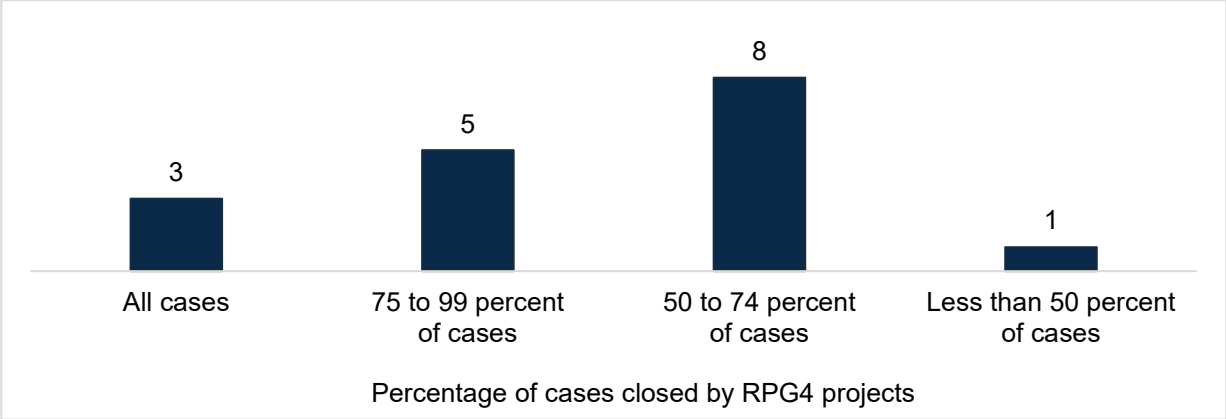
Projects enroll families in RPG services as a unit, which is referred to as a case. Projects close cases when families complete their services, drop out, or are otherwise discharged from a project. Projects then record (1) the date the case is considered closed (which is not necessarily the date on which the last RPG services were provided to members of the case), (2) the primary reason they closed the case, (3) updated residential information on children in the case, and (4) information on birth outcomes for any children born since enrollment. Projects were encouraged to adopt a grace period (for example, 30 or 60 days), during which families that had lapsed from participating in services could reengage before their case was closed. The length of RPG enrollment is defined as the time between enrollment and case closure, which is distinct from the length of service enrollment, which is the time between the first and last service encounter. ◢

1. Exiting RPG4 projects

By the end of cross-site evaluation data collection, RPG4 projects had closed 76 percent of their 1,108 enrolled cases. On average, families in closed cases were enrolled in an RPG4 project for about 9 months. As shown in Figure III.4, RPG4 projects varied in the extent to which they closed cases. Three projects closed all of their cases. However, RPG4 projects most commonly closed the cases of between 50 percent and 74 percent of the families they enrolled.

Some families were still actively receiving services from grantees at the end of data collection, and those families' cases were not yet ready to close. Of the 265 RPG cases that remained open, 51 percent had received at least 1 RPG service within the 30 days before the end of the cross-site evaluation data collection. However, 26 percent had not attended services in the past 30 days; an additional 9 percent of cases did not attend RPG services within the 60 days before data collection ended; and the remaining 14 percent had not attended services in more than 90 days.

Figure III.4. Number of RPG4 projects by percentage of cases closed



Note: RPG4 = Regional Partnership Grants, Cohort 4.

Source: RPG-Evaluation Data System data, March 1, 2019, through March 11, 2022.

2. Completing RPG4 projects

Nearly half (45 percent) of the closed cases completed their planned set of RPG4 services (Table III.5). Each project defined program completion for the cross-site evaluation based on its requirements for enrolled families (for example, whether a family participated in all services that were outlined in its treatment plan). The rate of completion at the project level ranged from 22 percent to 83 percent, with 7 of the RPG4 projects achieving a successful completion rate of at least 50 percent with the cases they closed. On average, families that achieved completion were enrolled in their RPG projects for about 10 months.

The most common reason that families did not complete a project was because they withdrew from services, either formally or informally, as shown in Table III.5. Fourteen percent of families were discharged from their RPG4 projects because they missed appointments or stopped responding to RPG staff. An additional 12 percent of closed cases occurred because families actively declined further participation in services. On average, families whose cases closed for these reasons were enrolled in RPG4 for seven months.

Table III.5. Reasons for case closure

Reasons for case closure	Percentage of closed cases	Average number of months enrolled in RPG4
Completed RPG	45	10
Excessive missed appointments or unresponsive	14	7
Family declined further participation	12	7
Unable to locate	7	6
Child entered out-of-home placement	7	10
Other program noncompliance	5	7
Family moved out of area	3	10
Transferred to another service provider	3	7
Drug use (ongoing or relapse)	1	9
Incarceration	1	6
Parental death	< 1	7
Miscarriage or fetal or child death	< 1	11
Other	1	11

Note: RPG4 = Regional Partnership Grants, Cohort 4.
n = 843 closed cases; open cases were excluded from these calculations.

Source: RPG-Evaluation Data System data, March 1, 2019, through March 11, 2022.

3. Family characteristics at case closure

Table III.6 shows that at case closure, most children were in relatively stable residences. More than 8 in 10 children (83 percent) lived in the same residence for the 30 days before case closure. Most children (74 percent) who lived in a stable residence at case closure also lived in one at enrollment. However, the cross-site evaluation does not have data on whether children lived in the same residence at enrollment and case closure. A few children had a stable residence at enrollment but not at case closure (3 percent) or a stable residence at case closure but not at enrollment (3 percent).

Most children lived in a private residence at case closure (81 percent), which was similar to what was reported at enrollment for these children (85 percent). However, between enrollment and case closure, 19 percent of children experienced a change in the type of residence they lived in, suggesting that, although the overall rates were similar, many children experienced housing instability during their time in an RPG4 project.

Children living in other types of residences at case closure were generally enrolled in certain projects. For example, 7 percent of children were homeless at case closure, but nearly all of these children were served by one project that provided supportive housing to families that might struggle to find housing after RPG4. Similarly, the 4 percent of children living in a treatment facility at case closure were all enrolled in one of two projects.

Table III.6. Children's residence type and stability at case closure

Child's residency type and stability at case closure	Percentage
Child's primary type of residence at case closure[a]	
Private residence	80
Homeless or shelter	7
Treatment facility	4
Group home	< 1
Correctional facility or prison	0
Other	1
Unknown	8
Child changed residence type between enrollment and case closure[b]	19
Child lived in the same residence for the past 30 days at case closure[a]	
Yes	83
No	4
Unknown	13
Residential stability between enrollment and case closure[b]	
Child had stable residence for the past 30 days at enrollment and case closure	74
Child had stable residence for the past 30 days at enrollment but not at case closure	3
Child had stable residence for the past 30 days at case closure but not enrollment	3
Child did not have stable residence for the past 30 days at both enrollment and case closure	1

[a] n = 1,343 children; includes all children with case closure data, including children who were born after the family enrolled in an RPG4 project.

[b] n = 1,232 children; includes children with both enrollment and case closure data. Percentages do not add up to 100 percent because children's residential stability status could have been reported as "unknown" at enrollment or case closure.

Note: Children whose cases were still open were excluded from these calculations.

Source: RPG-Evaluation Data System data, March 1, 2019, through March 11, 2022.

Many children lived with different adults at enrollment than they lived with at case closure, as shown in Table III.7. Fifty percent of children lived in households where the composition of adults changed between the two time points. Overall, 65 percent of children lived with at least one biological parent at case closure, including nearly two-fifths of children (39 percent) who lived with only their biological mother, which was the most common household structure at case closure and enrollment. At case closure, a relatively smaller proportion of children lived with a nonrelative foster parent or another relative or adult (24 percent).

Table III.7. Primary adults whom children lived with at case closure

Primary adults whom children lived with at case closure	Percentage of children at case closure
Child lived with different adults at case closure compared to enrollment[a]	50
Adults in household with the child at case closure[b]	
Biological mother only	39
Biological father only	4
Both biological mother and father	13
Other relative[c]	16
Any biological parent and a relative or other adult	8
Nonrelative foster parent only	8
Other[d]	< 1
Unknown	11

[a] n = 1,232 children; included children with both enrollment and case closure data.

[b] n = 1,342 children; included all children with case closure data, including children who were born after the family enrolled in an RPG4 project.

[c] This category includes situations in which children were living with foster parents who were their relatives.

[d] This category includes families whose focal child was not in utero and did not live with a biological or foster parent.

Note: Children enrolled in open cases were excluded from these calculations.

Source: RPG-Evaluation Data System data, March 1, 2019, through March 11, 2022.

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IV. PARTNERSHIPS

Partnerships between child welfare agencies, substance use treatment providers, and the courts can promote positive outcomes for children and families (Green et al., 2008; Ogbonnaya & Keeney, 2018; Smith & Mogro-Wilson, 2008). Collaboration is a key goal of the RPG program's efforts to support the needs of families. Partnerships are central to collaborative service delivery because a range of entities govern the policies and practices that are needed to meet complex family needs (see, for example, He & Phillips, 2017). By supporting collaboration and partnerships between organizations that support families with substance use issues, the RPG program aims to increase the well-being and safety of children.

Despite the potential benefits of partnerships to support families, collaboration can be challenging. Partner organizations often have their own goals and organizational demands, and it is not easy to align processes and requirements across diverse agencies or programs. In addition, historically siloed services may result in disjointed and inadequate supports for families that rely on services from multiple agencies and organizations. For the agencies and programs that serve families, silos can make it difficult to communicate and share information and make service delivery more burdensome. Further, staff capacity for focusing on collaboration is often limited (Cavadel et al., 2022; Janich & Shafer, 2018; NCSACW, 2017). Despite these challenges, prior RPG projects have had success in improving outcomes of both adults and children (Cole et al., 2021)

This chapter examines the partnerships that make up the RPG4 and RPG5 projects. The information in this chapter is drawn from a partnership survey administered in fall 2021 to all organizations that were part of the RPG projects. The cross-site evaluation team surveyed one representative from each of the RPG4 and RPG5 grantee organizations and one representative from each of their partner organizations. Sixteen of the 17 RPG4 projects and all 10 RPG5 projects responded to the partnership survey. The survey asked about the characteristics of the partnership, such as the types of organizations in the project, the resources that grantees and partners shared for the RPG project, how well grantees and their partners worked together, and communication and service coordination between and within the partnership (Appendix D).

The chapter also describes which partners were involved in each RPG project and how they worked with each other and the grantee. It includes information about how grantees and their partners collaborated and what they thought about that collaboration. First, the chapter presents information about the organizations in the projects; next, it describes findings from the partnership survey about the types of collaboration within the projects. Information about RPG4 and RPG5 projects was combined, except where substantial differences existed. Findings are described in the context of the level, or degree, of collaboration between partners. Chapter V delves into the degree of collaboration, specifically on referrals and case consultation in a subset of RPG4 and RPG5 projects.

A. Partnership characteristics

The RPG projects aim to better serve families by engaging with diverse services and capabilities. This section describes the characteristics of the organizations involved in the projects. The RPG funding opportunity announcement specified that each project must include at least two agencies, and the state child welfare agency must be involved. Beyond those requirements, each grantee selected which organizations to partner with for their RPG project.

1. Types of organizations involved in the projects

The grantees and their partners included a mix of organizations that were both experienced with and new to RPG and had varying histories of working together. Eleven of the 26 grantees in RPG4 and RPG5 that responded to the partnership survey had prior grants from the RPG program. On average, more than half (59 percent) of the organizations in a project had worked together before the grantee received the current grant.

Involved organizations include child welfare agencies, substance use treatment providers, government entities, and others. About one-quarter of the organizations described themselves as child welfare service providers. Less than 15 percent of organizations were substance use treatment providers, and 12 percent identified themselves as a department in a state or tribal government. Notably, in RPG5 projects, 25 percent of the organizations described themselves as an entity that was not one of the survey options, including a public library, a Head Start program, a domestic violence service provider, and a trade association.

The organizations in the RPG project varied in their primary activities. More than one-third of organizations reported that case management or coordination was one of their main activities. Forty percent of RPG4 grantees and their partners identified child welfare services as a main activity; a smaller proportion of the RPG5 cohort (29 percent) said this was a main activity. About one-quarter of the survey respondents selected other main activities, including regulation and oversight, evaluation, mental health services, substance use treatment and prevention, and home visiting.

2. Project size and changes over time

The partnership survey asked respondents how many organizations were in a project and what the organizations were. At the time of the partnership survey, an average of six organizations, including the grantee, were in an RPG4 project. RPG4 projects ranged in size from 3 to 13 organizations. This number was smaller than in prior rounds of the RPG program. In the second and third cohorts of grantees, there were an average number of 13 and 9 organizations, respectively (HHS, 2020, 2021b). The number of organizations in the RPG5 cohort was similar to the number in previous cohorts. RPG5 projects averaged nine organizations, including the grantee. RPG5 projects ranged in size from 3 to 26 organizations.

Table IV.1 compares the number of partners in each RPG project from the start of the grant (using information from the grant application) to the time of the partnership survey in fall 2021,

when they were well into their grant period, or had fully implemented their project. Most projects changed size between the first year of the grant period and the time of the partnership survey. During this period, six projects in the RPG4 cohort increased their size by an average of three organizations; eight projects decreased in size by an average of six organizations; and three projects did not change in size. Among RPG5 grantees, three projects increased by an average of four organizations; four projects decreased in size by an average of four organizations; and three projects did not change in size. The changes refer only to the total number of organizations, not the specific organizations involved.

Table IV.1. Change in number of RPG partners, from the grant's start to full implementation

State	Grantee	RPG start (2017/2018)	Partnership survey (Fall 2021)	Change
RPG4				
AK	Cook Inlet Tribal Council	3	4	1
AL	University of Alabama at Birmingham	8	7	-1
DE	Children and Families First Delaware	9	5	-4
FL	Broward Behavioral Health Coalition	10	12	2
IA	Northwest Iowa Mental Health dba Seasons Center	3	5	2
IL	Youth Network Council dba Illinois Collaboration on Youth	7	10	3
IN	Volunteers of America Indiana	4	11[a]	7
KS	University of Kansas	11	11	0
KY	Mountain Comprehensive Care, Inc.	11	4	-7
MO	Preferred Family Healthcare, Inc.	25	13	-12
OH	The Ohio State University	10	6	-4
OK	Oklahoma Department of Mental Health and Substance Abuse	5	3	-2
TN	Helen Ross McNabb	4	6	2
VT	Lund Family Center	17	3	-14
WA	Catholic Charities	11	6	-5
WI	Meta House, Inc.	3	3	0
WV	Prestera Center for Mental Health	4	4	0

State	Grantee	RPG start (2017/2018)	Partnership survey (Fall 2021)	Change
RPG5				
FL	Citrus Health Network/ Citrus Family Care Network	13	9	-4
FL	Family Support Services of North Florida	10	10	0
IA	Judiciary Courts for the State	4	4	0
IA	Northwest Iowa Mental Health dba Seasons Center	4	5	1
IL	Centerstone of Illinois, Inc.	11	8	-3
MA	Institute for Health and Recovery	4	3	-1
MO	Preferred Family Healthcare, Inc.	22	26	4
NY	Montefiore Medical Center	8	8	0
PA	Health Federation of Philadelphia	15	4	-11
SD	Volunteers of America, Dakotas	6	14	8

Note: dba = doing business as; RPG4 = Regional Partnership Grants, Cohort 4; RPG5 = Regional Partnership Grants, Cohort 5.

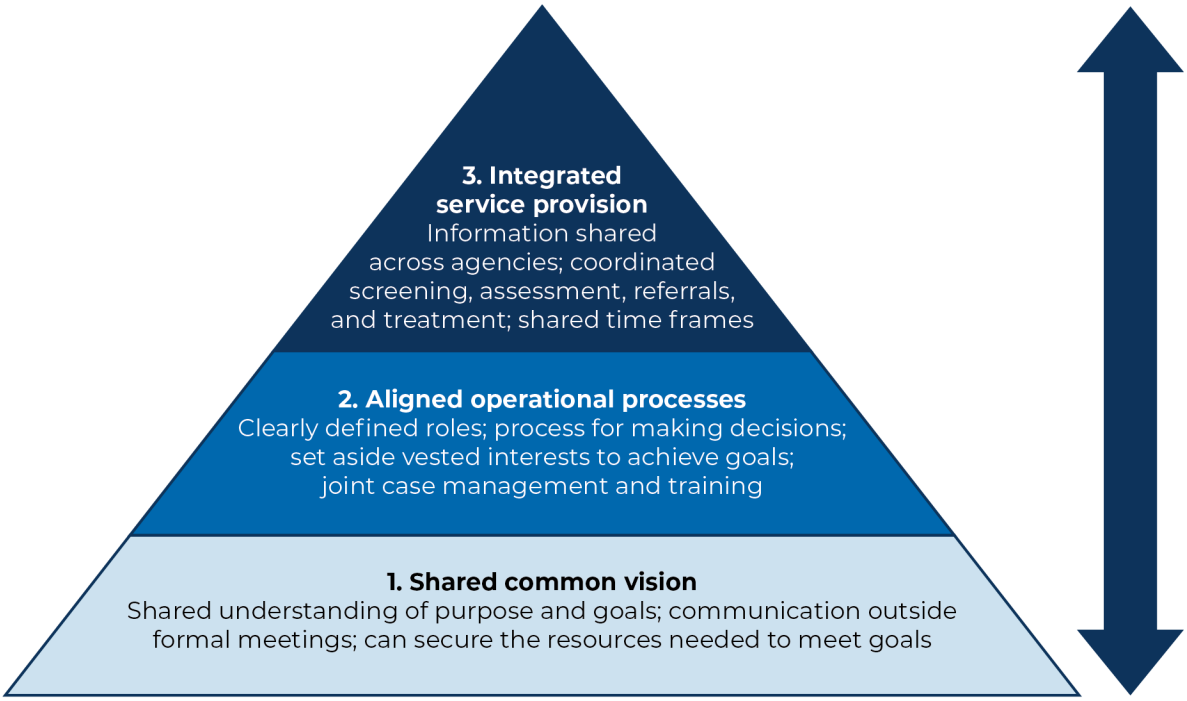
One grantee, Northwest Iowa Mental Health dba Seasons Center, is a grant recipient in both the RPG4 and RPG5 cohorts. In the analyses presented in this chapter, this grantee was included only once, in the RPG5 cohort.

Source: Data from the grantees' applications (for the grant's start) and the partnership survey in fall 2021 (for full implementation).

B. Building interagency collaboration

Projects can differ not only in their size and configuration, but also in the degree or intensity of collaboration between the partners. Figure IV.1 depicts the different levels of collaboration that RPG partnerships might achieve (D'Angelo et al., 2019). The pyramid starts with a shared vision and goals (Level 1); builds on that with aligned operations across child welfare, substance use treatment, and other systems (Level 2); and finally includes integration of some or all services (Level 3).

Figure IV.1. Levels of interagency collaboration



Source: D'Angelo et al. (2019).

The levels of collaboration can be thought of as a continuum. However, this does not mean that all projects were striving to reach the third level. Not all partnerships have the same goals for the type of collaboration they will ultimately achieve. Also, not all aspects of collaboration are at the same level. For example, partnerships may be highly integrated in the way they share information, but less integrated in their service delivery. Partnerships may also move to a more integrated level of collaboration and later move back to less collaboration.

In addition, some organizations may be more integrated with one another than other organizations within the project. Issues outside the projects' control, such as staffing, funding, community needs, or the COVID-19 pandemic, can influence where partnerships are located on the continuum.

1. Shared common vision

The first level of the pyramid, a shared common vision, includes a common purpose and goals, regular communication, and the shared resources needed to make progress toward those goals. Some questions asked respondents to report how they interact and work with the other organizations in the partnership. The cross-site evaluation team used social network analysis (Box IV.1) to analyze the level of connectedness in those relationships.

Box IV.1. Social network analysis

To understand how organizations within the RPG projects are connected to one another, the cross-site evaluation team used an analytic technique called social network analysis. A network consisted of all the organizations within a project that worked together on a particular RPG project activity, such as screening or assessment, referrals, or case management. Each grantee reported the partner organizations that were involved in its RPG project. On the survey, respondents (the grantee and each of the partner organizations) indicated whether their organization collaborated with each of the other organizations in the particular RPG project. The survey also asked about eight different networks (two communication networks and six service coordination networks) that the grantee and its partners might work together in.

For the social network analysis, if a respondent reported that his or her organization collaborated with another organization in the RPG project on a project activity, it was considered a connection. These connections were combined to create density scores for each network. A density score was the proportion of actual connections reported out of all possible connections among the organizations. The score ranged from 0 to 1. If an organization had a connection with all the other organizations, its density score would be 1. Because determining the strength of a social network relied on information from the partners, the analysis included projects in which at least 60 percent of the organizations responded to the survey. The 60 percent threshold included 14 of the 16 grantees in RPG4 and 8 of the 10 grantees in RPG5, for a total of 22 grantees. Among those 22 grantees, all partners were included in the analysis regardless of whether they responded to the survey. This meant that the density averages may have been slightly lowered by the inclusion of partners that did not answer questions about whether they were connected to the other respondents in the partnership. ◢

Purpose and goals. Several questions on the partnership survey asked respondents about their perceptions of the value of collaboration. All organizations agreed that their collaborative efforts were aimed at impacting an important problem. Most also agreed that the organizations had equal say in the project, that there was trust among the organizations, that the partnership was committed to common goals, and that the time and effort of the collaboration was directed at achieving those goals.

Shared goals for overall collaboration can keep everyone focused on progress toward collective outcomes, even though individual organizations might also have organization-specific goals. Respondents described the main goals of the project in their own words through an open-ended question on the partnership survey. In describing those goals, partners commonly cited key aspects of the RPG program's overall vision. For example, most respondents talked about the goal of supporting families, as opposed to just the adults or just children. They described supports for substance use and family preservation and services such as care coordination, parenting supports, housing, and mental health care. Some respondents reported narrow goals, focused on one service (for example, a goal of providing housing, group therapy, or pregnancy services). About 30 percent of RPG4 respondents and 15 percent of RPG5 respondents described the focused services that they had a goal of delivering. Conversely, some respondents had overarching goals related to collaboration, partnership, or systems. More than half of the

RPG4 projects (9 of 16 projects) and 80 percent of RPG5 projects (8 of 10 projects) mentioned goals related to collaboration, partnership, or systems.

Communication. On average, the organizations in the projects communicated with each other a few times a month; however, not all organizations within a project communicated with each other. In the partnership survey, respondents were asked whether and how often they communicated with the other organizations in their partnership. A small percentage (15 percent) communicated regularly (defined as every day or nearly every day), whereas two-thirds (64 percent) of respondents communicated infrequently (defined as a few times a month). Almost one-quarter (22 percent) never communicated with some of their partners. On average, organizations communicated with slightly less than half of the other organizations within their project, according to the social network analysis.

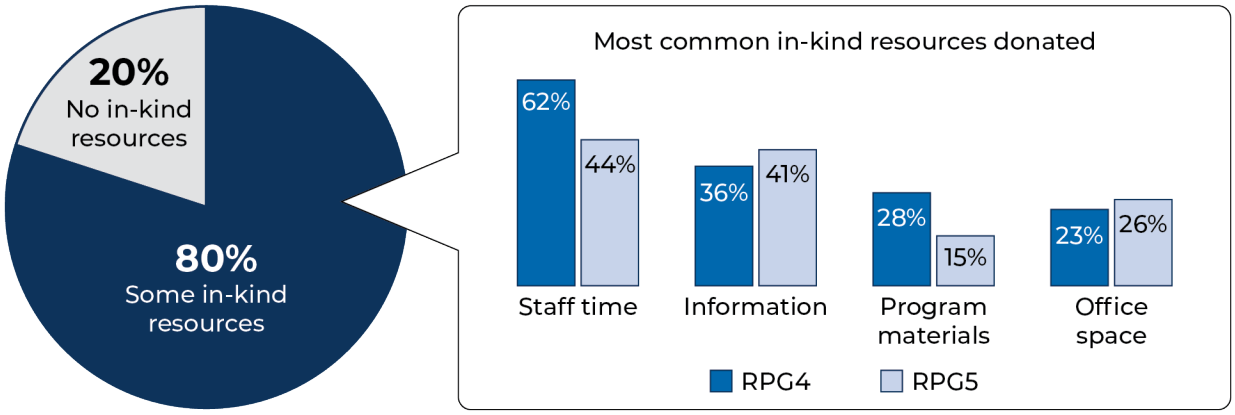
Shared resources. The partnership survey asked respondents whether they received monetary resources and whether they contributed in-kind resources, along with a general question about whether the partnership was able to get the resources it needed. Most organizations (89 percent) agreed that their project was effective in getting both the monetary and nonmonetary resources it needed to meet its goals.

Organizations that provided or planned to provide services as part of the RPG project reported on whether they received any funding for the RPG project.[41] Forty-one percent of the RPG4 partners and 18 percent of the RPG5 partners reported receiving funding for the project in the past year.

Respondents were also asked about the in-kind resources they contributed to the overall RPG project. As shown in Figure IV.2, about 80 percent of respondents contributed some in-kind resources. Staff time was the most common in-kind resource offered, with about half or more (depending on the cohort) of the partner organizations reporting that they provided this to the project. At least one-third of the respondents (across cohorts) said they shared information with other organizations in the project, and about one-quarter provided office space. Some partner organizations also supplied program materials. Other, less commonly provided resources from partners included office supplies, transportation, and technology.

[41] This included about 70 percent of the respondents.

Figure IV.2. Percentage of partners providing in-kind resources, and types of in-kind resources donated to partnerships



Note: RPG4 = Regional Partnership Grants, Cohort 4; RPG5 = Regional Partnership Grants, Cohort 5.
The types of in-kind resources sum to more than 100 percent because survey respondents could select more than one type of in-kind resource that they provided.

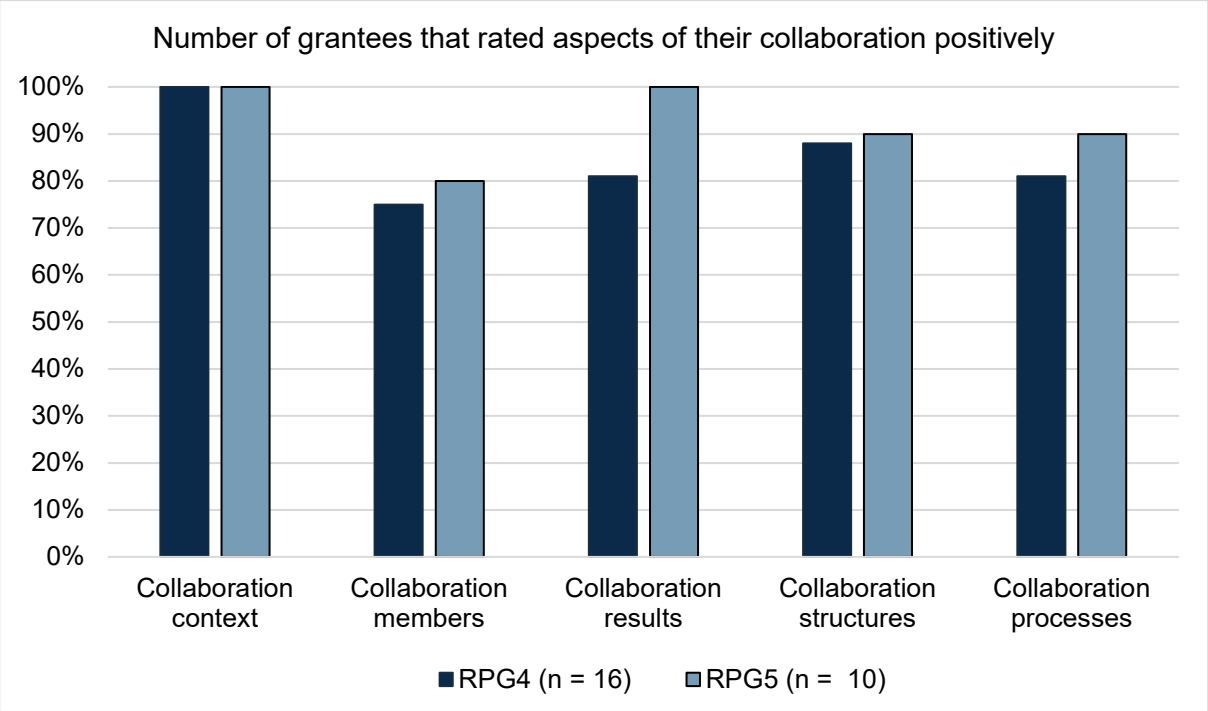
Source: RPG partnership survey.

Box IV.2. Perceptions of collaboration among grantees: The Working Together Survey

The Working Together Survey (WTS) (Chrislip & Larson, 1994) was embedded within the overall partnership survey. The WTS was designed to capture respondents' perceptions and feelings about collaboration. Respondents were asked how much they agreed or disagreed with positive statements about collaboration within the RPG project on the following five dimensions: (1) collaboration context, (2) collaboration members, (3) collaboration results, (4) collaboration structures, and (5) collaboration processes. The first three dimensions include questions about the first tier of the collaboration pyramid (such as resources and vision). The last two dimensions include questions about the second tier of the collaboration pyramid (such as effective decision-making processes and defined roles).

Figure IV.3 shows the percentage of respondents that rated their collaboration positively (that is, they gave it a score of 3 or 4 on a scale of 1 to 4). A table of the mean and range scores for each construct can be found in Appendix D. Overall, most respondents felt positively about the collaboration. When looking at individual items that made up the constructs from the survey, the most varied responses were on items asking respondents whether they thought that their partners devoted the necessary effort, trusted each other, and considered new ideas. ◢

Figure IV.3. Respondents' perceptions of collaboration



Note: RPG4 = Regional Partnership Grants, Cohort 4; RPG5 = Regional Partnership Grants, Cohort 5; WTS = Working Together Survey.

Response options ranged from strongly disagree (1) to strongly agree (4).

Source: WTS (Chrislip & Larson, 1994); administered as part of the RPG partnership survey in fall 2021.

2. Aligned operational processes

The second level of the pyramid, aligned operational processes, refers to organizations having clearly defined roles and processes for making decisions. It also encompasses organizations working together and engaging in joint case management and training.

Collaboration structure. According to the WTS (Chrislip & Larson, 1994) that was administered as part of the partnership survey (Box IV.2), most organizations said that their projects had a collaboration structure with shared communication norms, clear roles for participants, ground rules for conducting their work, and the ability to share information. To maintain this structure and facilitate information sharing, almost half (44 percent) of responding organizations reported that they developed formal working agreements (such as memoranda of understanding) to share participant information across child welfare agencies, substance use treatment providers, and courts.

Collaboration processes. In the WTS, respondents were also asked about their perceptions of the collaboration process in their projects. Most (more than 85 percent) of the organizations reported that their project group was able to set aside vested interests to focus on a common goal. Further, they agreed that they had an effective decision-making process characterized by

openness and credibility, and they could express and listen to divergent opinions, when necessary.

Collaborative case management. The organizations also described coordination across agencies for particular aspects of their RPG project. More than three-quarters (78 percent) of the organizations said that case management was coordinated across child welfare agencies and substance use treatment providers. Two-thirds (64 percent) said that staff from both types of organizations participated in joint case management. About half (46 percent) said that families receiving joint case management received regular cross-agency assessments. More information about the degree of interagency case collaboration is in Chapter V.

3. Providing integrated services

The top of the collaboration pyramid is integrated service provision. This level includes information sharing across agencies; shared time frames; and coordinated activities such as screening, assessment, referrals, and treatment. This level offers the most seamless collaborative service delivery, but it is not the goal of all partnerships and can be challenging to achieve.

Information sharing and shared outcomes and time frames. About half of the partnership survey respondents reported using data tracking across systems to monitor the outcomes of participants in child welfare systems and substance use treatment and that they had developed joint training to help staff across systems work together effectively. Fewer respondents (38 percent) said that the substance use agencies, child welfare agencies, and court systems had developed shared outcomes for families and agreed on how to use information on those outcomes to inform conversations with families. One-third (34 percent) of the partners said that their project had developed responses to the conflicting time frames of child welfare services, substance use treatment, TANF, and child development.

Coordinated activities. Social network information was used to examine the capacity in which each partner organization worked with the other partner organizations. The survey asked about the following six different coordination activities: (1) screening or assessment, (2) program referrals, (3) case management or coordination, (4) substance use treatment, (5) mental health or trauma services, and (6) other social or family services. On average, projects used about 22 percent of their available connections to collaborate on these different activities (that is, a density score of 0.22). This was consistent within each type of activity (for example, across activities such as program referrals and case management), with one exception. Projects were least likely to have collaboration between partner organizations for mental health or trauma services (average density within that activity was 0.15).

Within the projects, the networks were moderately correlated, which suggested that the more connected an organization was to other organizations for one activity (for example, referrals), the more connected it was for others (for example, screening).

C. Partnership challenges

In their Semi-Annual Progress Reports, grantees provided information about the types of challenges that they faced in collaborating. In their October 2021 reports, they consistently described internal challenges, such as problems with enrollment and staffing, within the context of the external challenge of the COVID-19 pandemic. For example, some grantees said that the area they operated in was experiencing widespread staffing shortages due to the pandemic. Other grantees said that they enrolled participants through the court and that restrictions on in-person court activities had limited enrollment, or that the switch to virtual services had made it harder to engage families. The influence of the pandemic is important to consider in understanding data from the partnership survey. It may have affected how often and how well organizations were able to meet or communicate, and it may have affected the ability of some organizations to respond to the survey.

D. Summary

The findings from the partnership survey suggest that the RPG4 and RPG5 projects varied in how connected and integrated their partnerships were. All projects achieved some aspects of the first tier of collaboration, including a shared purpose, goals, and resources. Some projects were able to integrate some communications or systems to align their operational processes, in the second tier of collaboration. A few projects had achieved aspects of the third tier of collaboration, including information sharing and coordinated activities such as screening and assessment. However, the social network analysis showed that some projects were not benefiting from all the available connections they had.

The findings suggest that variation also occurs within projects across dimensions of collaboration. For example, some projects were primarily at the first tier of collaboration, but also had elements of the second tier of collaboration, such as clearly defining roles for the partnership. As part of the analysis of the partnership survey, the cross-site evaluation team sought to identify whether there were relationships between different aspects of collaboration. For example, if organizations in the project communicated more regularly, did they also identify broader, more collaborative goals? The analysis showed that these different aspects of collaboration were not always related. This supports the idea that even within a project, collaboration is a continuum.

As noted, not all projects have the same ultimate goals for the level of collaboration they achieve. They may also be limited by internal and external challenges. Internal challenges, such as with staffing, training, communication between leaders and staff, and enrollment, can affect an organization's capacity for collaboration. External challenges include policy contexts, geographic constraints, funding, or shifts in the makeup of the focal population.

Although the partnership survey described how the grantees and the organizations they partnered with viewed their RPG project, the survey data were limited in the depth and context they could provide. Not all organizations responded to the survey, which limited what could be learned about some of the partnerships. Using qualitative data and observations to understand, for

example, not just whether organizations communicated but what the content of their communications were or how they enacted goals in their day-to-day operations, can add critical information about successes and gaps in collaborative service delivery. Chapter V of this report turns to qualitative information from site visits that helps contextualize the partnership survey's findings.

V. COLLABORATION BETWEEN CHILD WELFARE AGENCIES AND SUBSTANCE USE TREATMENT PROVIDERS

Collaboration is the foundation of RPG projects, and the collaboration between child welfare agencies and substance use treatment providers is particularly important. The funding opportunity announcement directed applicants for RPG4 and RPG5 grants to demonstrate an existing collaborative infrastructure between child welfare agencies and substance use treatment providers, one that could support their proposed activities and help them serve the intended focal population (Administration for Children and Families, 2017a, 2017b, 2018). Partnerships between child welfare agencies, substance use treatment providers, and courts can support the implementation of best practices (Palinkas et al., 2014; Ogbannaya & Kenney, 2018) and promote positive outcomes for children and families (Green et al., 2008; He, 2017; He & Phillips, 2017; Ogbannaya & Kenney, 2018). When agencies collaborate, families receive more consistent messages from all service providers and feel less overwhelmed by conflicting demands (Green et al., 2008; Herlihy, 2016). Yet, child welfare agencies and substance use treatment providers can face challenges in working together, and if they do not address those challenges, it can stymie their intentions. Examples of these challenges are conflicting priorities, goals, or service timelines, and restrictions on information sharing (Green et al., 2008).

Given how important it is for child welfare agencies and substance use treatment providers in RPG projects to collaborate, the cross-site evaluation conducted site visits to examine how these organizations worked together to achieve RPG's goals. This chapter builds on findings from the partnership survey discussed in Chapter IV by examining in greater depth the collaboration between child welfare and substance use treatment organizations. After describing the site visit sample, this chapter discusses how child welfare agencies and substance use treatment providers worked together to plan and implement projects, and how much they collaborated when referring and serving families. The chapter concludes with a description of the common facilitators and barriers that the organizations faced and their overall successes.

A. Sample overview

1. Site visit timing and respondents

The cross-site evaluation team conducted telephone interviews during summer and fall 2021 with RPG4 and RPG5 projects. The RPG4 and RPG5 cohorts were concluding their fourth and third grant years, respectively.[42] Summer and fall 2021 also marked a year and a half into the COVID-19 pandemic. Although the country was no longer in the initial stages of the pandemic, projects were still grappling with day-to-day implementation challenges at the time of the interviews.

[42] RPG6 projects, which were funded in 2019 and began implementing services in 2020, were not included in these site visits because it was too soon in their project period to investigate progress toward interagency collaboration. RPG6 projects will participate in site visits during their fourth grant year (2022–2023).

In all, the cross-site evaluation team conducted 116 interviews with 25 projects.[43] Most interview respondents were directors, managers, or administrators with child welfare agencies or substance use treatment providers; others were supervisors or direct service staff. Court partners also participated in interviews where applicable. (Appendix E has more information about the respondents.)

2. Projects included in the site visit analysis

To focus on the collaboration between child welfare agencies and substance use treatment providers, analysis in this chapter is mostly limited to projects in which respondents indicated that child welfare agencies and substance use treatment providers were both involved in the RPG project. In this chapter, a substance use treatment provider is defined broadly as an organization that offers recovery services (such as medically assisted treatment or residential treatment) to adults with substance use issues, and/or offers mental or behavioral health treatment or supports (such as intensive case management, assessments, peer mentorship, counseling, or therapy) to adults, children, or the family unit affected by substance use.[44] The provider might also offer family strengthening services, such as parenting classes. All 25 projects that participated in the site visits included a child welfare agency as either the grantee or a partner, and 23 of them included a substance use treatment provider.[45] The other two projects offered family strengthening services to the family unit, but not substance use treatment as defined herein. Consequently, these projects did not include a substance use treatment provider.

Findings in Sections B and C are based on the 23 projects in which both a substance use treatment provider and child welfare agency were involved in the partnership. Section D, which discusses respondents' perceptions of how RPG projects have helped families more generally, includes all 25 projects. The cross-site evaluation team examined themes by cohort (RPG4 and RPG5) but combined the cohorts throughout this chapter as there were no substantive differences by cohort.

3. Project leadership

Grant projects were led by a child welfare agency, a substance use treatment provider, or another type of entity. This arrangement could influence how child welfare agencies and substance use treatment providers worked together. For instance, a grantee that is a substance use treatment

[43] One of the 27 RPG4 and RPG5 projects did not participate in site visits. Two projects were implemented by the same grantee and involved the same child welfare agency and substance use treatment partners; these two projects are counted as one in this chapter.

[44] This definition is based on the surgeon general's definition of SUD treatment as: "A service or set of services that may include medication, counseling, and other supportive services designed to enable an individual to reduce or eliminate alcohol and/or other drug use, address associated physical or mental health problems, and restore the patient to maximum functional ability" (HHS, 2016). The definition of a substance use treatment provider used in this chapter differs from that used in Chapter I to classify the type of organization awarded the grant, which was based on whether the organization offered *only* addiction recovery services.

[45] Most (21) of the 23 grantees offered substance use or behavioral health treatment to parents with substance use issues; two offered prevention or support services for children affected by parental substance use issues (but no substance use or behavioral health treatment for substance use issues).

provider might work directly with a child welfare agency to implement their grant, whereas if another type of entity were awarded the grant, substance use treatment providers and child welfare agencies might work together indirectly, giving them less incentive to collaborate. Fourteen grantees were substance use treatment providers based on the definition above; two were local child welfare agencies; one was a court; and nine were another type of entity, such as a family advocacy organization, university, or university clinic.

B. Progress toward collaboration between child welfare agencies and substance use treatment providers

To better understand how child welfare agencies and substance use treatment providers worked together to achieve RPG's goals, the analysis explored their joint endeavors for planning and implementing projects. In RPG4 and RPG5 cohorts, HHS encouraged grantees to use the first 6 to 12 months of their grants for planning. During that time, grantees and their partners could finalize plans for services, evaluation designs, and partners' roles and responsibilities, among other tasks, before serving families (HHS, 2023b).

1. Collaborative planning activities

Even when there is a directive to work together, interagency collaboration is most likely to happen if it is workable for the partners, reflects each partner's core business and policies, and inspires buy-in based on jointly held values (Horwath & Morrison, 2011). Establishing commitment, accountability, and clear roles is also important and can be accomplished by, for example, a formal agreement (Bronstein, 2003; Palinkas et al., 2014). An important part of the analysis was understanding whether child welfare agencies and substance use treatment providers worked together to plan projects, had RPG project goals that aligned with their organizational goals, and established formal agreements to support the collaboration.

Participation in planning discussions. In most projects (18 of 23), staff from both the child welfare agency and substance use treatment provider worked together, at least minimally, to plan the RPG projects, regardless of which organization was awarded the grant.[46] Most respondents thought that their level of involvement was sufficient. Typically (in 14 projects), both entities contributed to the initial project goals, vision, services, or evaluation strategy when writing their grant applications. For example, one substance use treatment grantee worked with their child welfare partner to determine which evidence-based practices or services to offer and to whom.

Goals, and alignment between goals and agency priorities. Reflecting the grant's purpose, and in line with responses to the partnership survey (discussed in Chapter IV), respondents from all projects that participated in the site visits described the goal of their partnership as improving access to treatment to support families in reunifying and/or preventing a child's removal from the home. As one respondent stated, "If we can provide wraparound services, then mom and baby

[46] The cross-site evaluation team analyzed whether projects led by a substance use treatment provider (or child welfare agency) involved their partner (either a child welfare agency or substance use treatment provider) in project planning, or whether projects led by another type of entity included both child welfare and substance use treatment partners in planning.

can stay together." Family preservation was also typically an organizational priority for the child welfare agencies and substance use treatment providers. Yet, even when they shared the goal of keeping families together, they did not always agree on how to achieve it. As discussed in Section C of this chapter, some child welfare and substance use treatment staff held conflicting views on the appropriate timeline or priorities for participants, and consequently on the best way to protect families.

In addition to providing direct supports for families, respondents from 13 projects said strengthening the collaboration between child welfare and substance use treatment providers was an explicit goal. For instance, respondents from three projects said they worked to break down silos so that each entity knew what the other was doing to support families. Respondents from four other projects noted that they hoped to use this grant opportunity to improve child welfare staff's understanding of substance use and treatment for parents or their children.

Use of formal agreements. HHS expected grantees to establish formal partner agreements to support their projects (Bipartisan Budget Act of 2018), a practice that can facilitate collaborative outcomes (He, 2017). In nearly all projects (22 of 23), there was a memorandum of understanding (MOU) or another formal agreement (such as a contract or data use agreement) between the substance use treatment provider (usually the grantee) and a child welfare agency; other types of grantee entities typically executed separate agreements with their child welfare and substance use treatment partners. The MOUs generally outlined the roles and responsibilities of each party, such as to attend certain meetings, refer participants to the project, or share certain types of information about participants with each other.

Challenges encountered when planning for RPG with partners. Respondents from most projects (18 of 23) reported encountering at least one challenge or detail to work out during the planning process. Some were relatively minor and expected, whereas others were unexpected and may have contributed to delays in enrolling families. Common challenges included finding a time to meet with busy partners, ironing out a referral process or implementation details (such as how a participant moves from one service to another, and how responsibilities are delineated), or determining how to work together in new ways. More substantial challenges included having staff from partners that had committed to the project leave by the time the grant was awarded, having partners back out, or having to change program models. Delays in obtaining approval from an institutional review board and executing data use agreements were a major challenge for at least three projects. Resolving challenges required relationship building, cross-training, and more frequent strategy meetings among project leaders.

2. Ways that child welfare agencies and substance use treatment providers worked together to serve participants

Interagency collaboration can be understood as the joint activities that partners undertake when working together (Bardach, 1998; He, 2015). Table V.1 shows the five common types of joint activities the cross-site evaluation team identified.

Table V.1. Types of activities child welfare agencies and substance use treatment providers worked together on

Type of collaborative activity	Number of RPG4 and RPG5 projects
Interagency collaborative case management or consultation	21
Referrals	19
Project guidance	16
Court hearings or decisions	7
Cross-system improvements	7

Source: Site visit interviews.

- **Referrals and interagency collaborative case management or consultation** (hereafter referred to as interagency case consultation).[47] In nearly all projects, child welfare agencies and substance use treatment providers worked together to refer families to services (19 projects) and support their ongoing care (21 projects). (Section B.3. has more information.)
- **Project guidance.** Respondents from most projects (16 of 23) reported that child welfare and substance use treatment managers or administrators met monthly or quarterly to discuss project implementation. Some respondents also described these meetings as venues for the entities to revisit their responsibilities and resolve conflicts.
- **Court hearings or decisions.** Staff from seven projects discussed how both child welfare and substance use treatment entities attended court hearings and/or provided the courts with progress reports. For example, substance use treatment staff in one project made case recommendations to child welfare caseworkers and juvenile officers during court hearings based on the participant's treatment progress and any safety concerns. Another noted that the family's child welfare caseworker, peer, and substance use treatment provider often met before a court hearing to confirm that all the information needed for the court case was available in the case's progress report.
- **Cross-system improvements.** Respondents from seven projects highlighted their efforts to support system or practice improvements that dovetailed with but extended beyond their core project services. One project team, for instance, viewed the grant as an opportunity to bring together a range of state and local partners to develop policies and procedures for implementing plans of safe care, which legislation required from health care providers to address the health and substance use treatment needs of infants born with prenatal substance exposure and their affected caregivers. Another team said the project supported their community's larger objective of building a network of peers with both recovery and child welfare experience that could staff child welfare cases.

[47] This chapter defines interagency case consultation as the range of interactions between entities when working on shared cases on families, from staff at different entities simply communicating about families to more formalized and structured ongoing collaboration (such as through joint case management or use of co-located or integrated staffing teams).

3. Degree of collaboration on referrals and interagency case consultation

As noted, most child welfare agencies and substance use treatment providers worked together when making referrals or through ongoing interagency case consultation. The collaboration pyramid discussed in Chapter IV, which is centered on the types of collaborative activities grantees and their partners undertook and the structures they established for the project as a whole (such as establishing shared goals and decision-making processes), characterizes referrals and ongoing case consultation as Levels 2 and 3. This suggests that by undertaking these activities, many project teams achieved some aspects of a moderate level of collaboration. But the site visit discussions also highlighted that the child welfare and substance use treatment organizations collaborated on these activities to varying degrees. In some instances, referrals or interagency case consultation were ad hoc, and in others, structured protocols supported frequent and routine information sharing. As noted in Chapter IV, this variation is consistent with literature characterizing interagency collaboration as operating along a continuum from a low to high degree of collaboration (Grace et al., 2012; Horwath & Morrison, 2007; Ogbonnaya & Kenney, 2018; Palinkas et al., 2014).

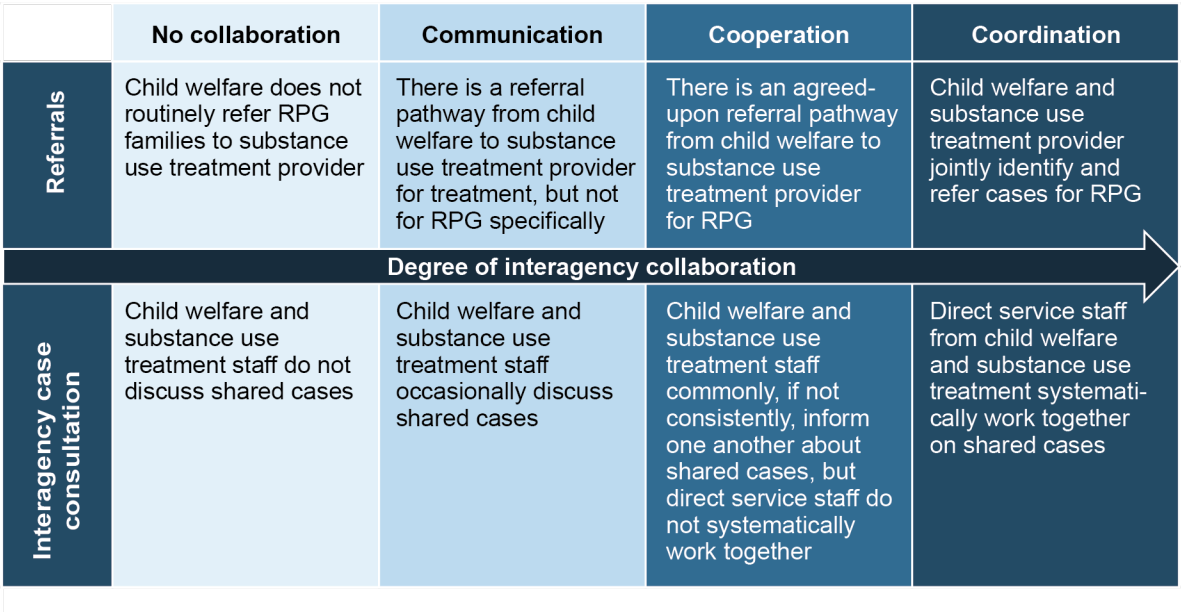
To deepen understanding of the progress that child welfare agencies and substance use treatment providers made in working together, the cross-site evaluation team examined the variation in how they conducted their main joint activities: referrals and interagency case consultation. To do this, the team developed a collaboration framework, shown in Figure V.1, that unpacks how formalized and systematic their collaboration on just these activities was across cases, based on how respondents described their day-to-day work. The framework is based on the first three levels in Horwath and Morrison's (2007) framework for interagency collaboration, which are:[48]

- **Communication:** individuals from different disciplines talking together.
- **Cooperation:** joint work on a case-by-case basis.
- **Coordination:** more formalized joint work, but no sanctions for noncompliance.

The team then classified the degree of collaboration between child welfare agencies and substance use treatment providers on referrals and interagency case consultation, with results shown in Table V.2. Examples of each level of collaboration are discussed next.

[48] The other two levels in Horwath and Morrison's (2007) interagency collaboration framework are **coalition:** joint structures sacrificing some autonomy; and **integration:** organizations merging to create a new joint identity. RPG encourages grantees to build partnerships to support families involved in multiple systems, but does not expect the agencies to sacrifice autonomy or merge with each other; thus, this chapter draws only on the first three levels of this framework.

Figure V.1. Criteria for classifying the level of collaboration between child welfare agencies and substance use treatment providers on referrals and interagency case consultation



Source: Levels of collaboration are based on Horwath and Morrison's (2007) interagency collaboration framework. Information about the partnership between the child welfare agency and substance use treatment provider is from site visit interviews.

Note: This graphic shows the criteria that the cross-site team used to classify the degree of collaboration that took place between child welfare agencies and substance use treatment providers when referring families to RPG and working together with shared cases.

Table V.2. Level of interagency collaboration between child welfare agencies and substance use treatment providers on referrals and interagency case consultation

Level of interagency collaboration	Number of RPG4 and RPG5 projects (%)	
	Referrals	Interagency case consultation
No collaboration	4 (17%)	2 (9%)
Communication	3 (13%)	5 (22%)
Cooperation	15 (65%)	2 (9%)
Coordination	1 (4%)	14 (61%)

Note: Percentages are based on a total of 23 projects that participated in the site visits and had both a child welfare agency and substance use treatment provider involved in the RPG project team.

Source: Site visit interviews.

Degree of collaboration on referrals and interagency case consultation. In most projects, child welfare agencies and substance use treatment providers *cooperated* to support referrals and *coordinated* on ongoing, shared cases. The level of collaboration for referrals and interagency case consultation was as follows:

No collaboration

- *Referrals.* In four projects, child welfare staff did not routinely refer families to substance use treatment providers as part of RPG. There may have been an occasional ad hoc referral, but there were no joint endeavors (such as policies or protocols) to support referrals because child welfare was not considered a main referral source for RPG in these projects. These projects aimed to support pregnant or postpartum women before they were involved with the child welfare system, although one project chose not to work with child welfare for referrals because of challenges in doing so on a past project.
- *Interagency case consultation.* Substance use treatment providers from two projects did not report any ongoing communication with child welfare staff after referring families to child welfare's usual services. The respondents noted that child welfare staff were not knowledgeable about the RPG projects, suggesting that the collaboration was limited to referrals for their usual treatment services rather than RPG services specifically.

Communication

- *Referrals.* Three projects described a referral pathway from child welfare to substance use treatment providers for usual services, but not RPG services specifically. In these instances, the substance use treatment providers leading the grants had an existing relationship with a child welfare agency to refer participants for treatment, and the substance use treatment providers enrolled families into RPG from their service population.
- *Interagency case consultation.* Child welfare agencies and substance use treatment providers in five projects discussed shared cases only occasionally and without established policies or practices to support joint efforts. These projects either had few shared cases, or they were still working toward establishing routine communication practices.

Cooperation

- *Referrals.* In most projects (15 of 23), child welfare agencies and substance use treatment providers established a pathway to refer families involved in child welfare to substance use treatment providers for RPG services. Typically (in 10 of these projects), substance use treatment providers led the grants and partnered with a child welfare agency to obtain referrals for RPG and make it easier for families involved in child welfare to access needed treatment.[49] In other instances, the child welfare agency or another type of entity led the grant, and child welfare agency staff referred RPG-enrolled families to a substance use treatment partner for usual services.
- *Interagency case consultation.* Child welfare and substance use treatment staff from two projects communicated about shared cases relatively more often than other projects did, but not systematically. Child welfare staff attended meetings with substance use treatment staff, but they were generally there to offer child welfare's perspective on child safety rather than discuss shared cases, or their attendance was not a widespread practice.

[49] For grantees that obtained RPG referrals from child welfare partners, child welfare agencies were not necessarily the only source of RPG referrals. Their focal populations may also have included families at risk of involvement with child welfare.

Coordination

- *Referrals.* Staff from the child welfare and substance use treatment systems in one project jointly identified and referred cases for RPG. These organizations worked together to develop and implement a substance use screening tool for the child welfare system to use during investigations.
- *Interagency case consultation.* In most projects (14 of 23), direct service staff at both child welfare agencies and substance use treatment providers systematically worked together on shared cases. Although each entity had distinct roles and responsibilities, staff from both entities communicated routinely and frequently at standing and as-needed meetings to work as a coordinated team in supporting families. Staff also relied on each other for some information, such as learning about the goals for the child welfare case, the occurrence of a relapse, or information about a family. Some substance use treatment staff also described altering their usual practice to accommodate a team approach, such as by sharing more information with caseworkers than they did previously. In a few instances, grantees and partners achieved a measure of integration. Respondents from three projects noted that treatment staff were co-located in child welfare offices to facilitate collaboration. In another project, a child welfare grantee trained and supervised direct service staff employed by their substance use treatment partner.

C. Facilitators of and barriers to collaboration

All projects faced internal and external factors that helped or hindered their collaborative efforts, regardless of how much collaboration there was between the project teams. Projects identified strategies to overcome the barriers to collaboration they faced.

Research has documented common facilitators of and barriers to interagency collaboration (Bronstein, 2003; Drabble et al., 2011; Green et al., 2008; He, 2017; Mattesich et al., 2001). The cross-site evaluation team asked RPG projects about 10 collaboration factors identified in the literature as facilitators or barriers and asked how each factor influenced collaborations between child welfare agencies and substance use treatment providers. Across the projects, three facilitators and two barriers were typically present. Three other facilitators were present, but with limitations (Table V.3).[50]

[50] Across projects, two factors, local policy context and power imbalance, were most often reported as not influencing the partnerships (neither a facilitator nor barrier); therefore, they are not discussed in this chapter, but are covered in Appendix E. The 10 collaboration factors were examined for each cohort separately; however, the results were the same for each cohort and are discussed in this chapter in the aggregate.

Table V.3. Facilitators of and barriers to interagency collaboration experienced in child welfare and substance use treatment partnerships

Factor	Overall influence on partnerships	Number of RPG4 and RPG5 projects
History of working together	Facilitator	18
Leadership support	Facilitator	18
Resources and funding	Facilitator	15
Staff time and turnover	Barrier	21
Competing timelines and priorities	Barrier	20
Ability of child welfare and substance use treatment staff to meet (in person or virtually)	Facilitator with limitations	12
Capacity to serve participants	Facilitator with limitations	11
Staff training	Facilitator with limitations	7[a]

[a] Respondents at 15 of the 23 projects provided information about staff training that was detailed enough for classification. For the other factors, information was not missing or missing for one or two projects.

Notes: If a factor is called a facilitator, it means projects most often described it as a strength or facilitator to collaboration. *Barrier* indicates projects most often described it as a challenge or barrier to collaboration. *Facilitator with limitations* indicates projects most often identified it as a facilitator, but many described limitations that may have meant they did not benefit from the factor as much as they could have in the absence of those limitations. (See Appendix E for details.)

Source: Site visit interviews.

1. Common facilitators to interagency collaboration

A history of working together, support from project and organizational leaders, and the RPG funding strengthened most collaborations between child welfare and substance use treatment providers.

History of working together. Positive experiences of working together in the past can help support interdisciplinary collaboration (Bronstein, 2003; Mattesich et al., 2001). Building on existing partnerships can help reduce the amount of time project teams spend developing collaborative structures and processes so they can implement services faster (Butterfoss et al., 2006). Respondents from 18 projects reported that previous collaborations were a jumping-off point for their RPG4 or RPG5 partnerships. In 11 projects, child welfare agencies and substance use treatment providers worked together on a past RPG or another grant project, often with the same individuals; some also worked together during the normal course of business. As one respondent noted, their positive experiences on an earlier RPG team prompted them to continue their long-standing relationship on their new RPG project. Positive experiences contributed to a virtuous cycle from which the project teams could continue to operate.

Partnerships that did not go as hoped in the past could prompt distrust going forward, however. Respondents at only one project reported such an experience. This project team chose not to rely on child welfare for referrals after observing on a past project that child welfare staff threatened to remove families from services when they were not meeting case goals.

Leadership. Leadership is important for developing and maintaining collaborations between child welfare agencies and substance use treatment providers (Drabble, 2011). Respondents from 18 projects reported that project and organizational leaders' engagement in the RPG projects provided the necessary support to make collaboration possible.

One respondent, for example, highlighted as assets the accessibility and communication from the project director and leadership within the substance use treatment and child welfare organizations. The respondent attributed this in part to the RPG project director's investment in building relationships between the two entities, including relationships between their direct service staff, and helping them strengthen their communication with each other. Staff in other projects said that the project leaders' use of regular, standing meetings with partners helped improve and maintain communication between project team members. Project directors also appreciated the responsiveness of leaders within their own organizations, which supported their efforts to facilitate interagency partnerships. As one project director remarked, "Anything we've ever needed, we have gotten."

Resources and funding. Sufficient funding to nurture shared goals can aid collaborative processes (Mattesich et al., 2001) and promote higher degrees of collaboration that can improve delivery of substance use treatment (He, 2017). The RPG funding was such an asset. Fifteen projects noted that RPG funding supported the efforts of child welfare and substance use treatment staff to deliver direct services and participate in partnership activities. One respondent from a substance use treatment provider noted that it would have been difficult to improve collaboration with the child welfare agencies had it not been for the RPG funding. The funding enabled them to spend time on activities that were important for building the partnership but not billable or covered by other sources. One respondent noted, for instance, that RPG funding was more flexible than their other resources, enabling them to conduct rapid substance use assessments or meet participants in the community when they were due for a drug test.

Despite the overall positive influence of RPG funding on collaboration, respondents at four projects said that the funding only partially supported the partnership and gave some examples. One respondent noted that although the RPG funding they received from the grantee covered the role of peers on the project, the peer organization still operated on shoestring budgets with low pay. Another grantee secured additional funding to add another staff member because their staff was overwhelmed.

2. Common barriers to interagency collaboration

Staff time and turnover and competing priorities and timelines were barriers to collaboration between child welfare agencies and substance use treatment providers in most projects, though several projects found ways to overcome these challenges.

Staff time and turnover. There is high staff turnover in the child welfare and substance use treatment fields (Eby et al., 2010; Kim & Kao 2014), often due to organizational factors such as burnout, stress, high workloads, and a lack of support from leadership (Child Welfare Information Gateway, 2016; He et al., 2018; Katz et al., 2022; Leake et al., 2017). Anecdotal reports from the child welfare field and national data from state mental health agencies suggest that the COVID-19 pandemic has exacerbated these staffing issues (NRI, 2020; Paul et al., 2022).[51]

"Lately, or even in the past year, we've had some pretty catastrophic turnover that is not just at the ground field worker level. We've had leadership changes; we've had senior leadership realignment. There's been a lot of change. We've kept the wheels on the bus, and we're still moving in the right direction…. But it's been a lot more difficult to retain staff. [And] with recruitment [of new staff], the applicant pool is just not where it used to be."

Unsurprisingly, then, respondents at most projects (21 of 23) reported that issues with staff time and turnover or workforce shortages hindered their ability to serve participants and attend to partner relationships. When staff left their jobs, the remaining staff had to handle a higher workload that made it difficult for them to accomplish their tasks—contributing to a cycle of burnout and additional departures. The COVID-19 pandemic was a key driver of the staffing challenges during the grant periods. One treatment provider estimated that there was 99 percent turnover within their organization in the first year of the pandemic. As a substance use treatment supervisor stated (about 1.5 years into the pandemic), it did not "feel like the world is ready for coming back from the pandemic," and the supervisor believed that people were still hesitant to return to work.

Respondents from nearly half the projects spoke of how staff turnover and high workloads made service delivery more difficult. One grantee noted, for example, that difficulty filling a vacant therapist position affected their ability to deliver behavioral health services. Two other projects faced challenges connecting families to needed treatment services in rural locations, where providers were even more scarce. Some expressed concerns about how turnover in child welfare caseworkers affected a family's case: new child welfare staff typically had less experience, and supervisors were carrying cases in some places, leaving less oversight and guidance for new caseworkers.

Respondents from 14 projects spoke of how high turnover and workloads disrupted the collaboration between staff at child welfare agencies and substance use treatment providers. Some noted that these issues diminished communication among the project team, as staff needed to prioritize families' needs over collaboration. Routinely needing to educate new hires about RPG processes was another common source of strain. As respondents in one project noted, a limited number of staff at their substance use treatment partner were knowledgeable about the RPG project because of staff turnover. Turnover at the leadership level also contributed to different expectations for sharing information between entities.

[51] According to an NRI (2020) report on the impact of COVID-19 on state mental health services, nearly three-quarters of state mental health agencies experienced workforce shortages and had to reduce staff or services in response to the pandemic. National data on the extent of child welfare turnover during the pandemic were lacking at the time of this report (Paul et al., 2022).

Although these staffing issues, exacerbated by the pandemic, were largely systemic, nationwide, and external to RPG, some projects found ways to address them. Some shifted staff's roles or expanded their duties to minimize disruptions. For example, substance use treatment staff in one project took on roles that were more generalist than specialist. Treatment staff in one project helped participants get in touch with their new child welfare caseworkers and obtain answers to their case questions; they attributed their success with this approach to their RPG collaboration.

Competing priorities and timelines. Previous studies have documented philosophical differences between child welfare and substance use treatment systems (Drabble, 2007), such as differences in how to respond to a parent's relapse (Green et al., 2008). Twenty RPG projects also found that the differences between child welfare and substance use treatment could raise issues. In 12 of these projects, respondents reported that a common source of tension was substance use treatment and recovery timelines that were too long for child welfare staff to wait. They explained that child welfare cases operate under finite time frames, whereas recovery from SUD or substance use issues is ongoing throughout life. As one respondent noted, child welfare timelines do not account for relapse as part of recovery. Another noted that child welfare caseworkers were used to having cases open for 6 to 12 months, which conflicted with the RPG intervention timeline of 18 months. Some thought that the courts (which review case progress during hearings), too, may not have accurate expectations of the recovery process and understanding of treatment philosophies that support individualized time frames for recovery.

"Permanency timelines don't align with individuals' recovery timelines because you can't put a timeline on recovery."

When priorities differed, it was usually because child welfare staff viewed the child as their primary client and the child's safety as their chief concern, whereas substance use treatment providers primarily serve adults, with the key concern of supporting a parent's recovery so that the parent can care for their child. Other studies have also revealed that the child welfare and substance use treatment systems do not always view the same person as the client (Drabble & Pool, 2011). Respondents noted that although both systems share the goal of family preservation, they can work toward this goal in different ways. As one respondent noted, "These differing focuses are not in conflict, but it can sometimes be challenging to merge them together."

Cross-system training is a common strategy used by child welfare agency–substance use treatment provider partnerships to address such challenges (He, 2017). RPG projects echoed the importance of this strategy. Respondents in the current study thought their cross-system communication or training helped project teams learn more about each other's approaches and diminished barriers to collaboration. Respondents also thought these types of activities addressed potential biases against people struggling with substance use, which may underlie some of the teams' collaboration challenges. As one individual remarked, child welfare staff have learned more about recovery from substance use issues through the RPG project, which means they better understand the timeline for recovery and how the project works to improve recovery. Yet, although RPG projects have provided an opportunity to address this key

challenge, there is more to be done. As one respondent stated, "A lot of progress has been made in the last five, six-plus years, and a lot of progress still needs to be made." (More on the ways that cross-system training can support collaboration is in the next section.)

3. Factors that facilitated interagency collaboration in a more limited way

Three facilitators to interagency collaboration were typically present in the RPG projects, but they were described as only limited facilitators that restricted collaborative efforts: (1) ability to meet (in person or virtually), (2) the capacity to serve participants, and (3) staff training.

Ability of child welfare and substance use treatment staff to meet (in person or virtually). Communication and networking between members of a partnership can contribute to their satisfaction with the collaboration, their ongoing commitment to collaboration, and a more effective implementation of shared strategies (Butterfoss, 2007). Respondents from 20 RPG projects reported that they were able to meet throughout the grant period. Several described having infrastructure that facilitated meetings throughout the project, including regular and consistent meeting times, working in proximity to one another so that they could attend meetings in person, and co-locating staff. However, respondents from 12 of the projects said there were challenges to meeting regularly during the COVID-19 pandemic. As noted in Section C.2, finding time for project team meetings was more difficult during the pandemic as organizations managed other priorities.

Virtual platforms enabled partners that formerly met in person to continue meeting during the COVID-19 pandemic, and they enabled partners who were further away to attend meetings. Many grantees were also either already using virtual platforms with their partners before the pandemic or were able to adapt to them. Yet, respondents at some projects noted that virtual meetings were less conducive to collaboration. They said that establishing or maintaining connections with partners was more difficult virtually. For example, one respondent said that the virtual meetings helped with turnout but were less effective at building relationships: "My gut is that it's not the same as being in a room together where I can really see your face and connect with you." Similarly, another thought that the lack of face-to-face contact during the COVID-19 pandemic made partners feel less like they were part of a "singular team."

Capacity to serve participants. Agencies collaborate to leverage resources and thereby increase their capacity to serve participants and minimize service duplication (Butterfoss, 2007). As noted, most RPG4 and RPG5 projects engaged partners to support referrals for, and thus access to, substance use treatment for eligible families in or at risk of child welfare involvement. Respondents from 15 projects indicated that they had enough openings to enroll and serve participants in RPG projects, but 11 of them faced two main challenges to full enrollment. First, in many of these projects, referrals and enrollment were lower than anticipated, especially during the COVID-19 pandemic, leaving providers with unused resources.[52] On the other hand, at some

[52] At most projects (13 of 23), respondents said that the COVID-19 pandemic contributed to a reduction in referrals to the project. Notably, however, 11 either did not perceive a change in referrals or had an increase. Those with fewer referrals highlighted that school closures and court closures or backlogs meant fewer families were eligible for

projects, staff turnover and shortages during the pandemic limited the number of families some projects could serve. For example, one project paused taking referrals due to high staff turnover, and three others said they might not have had enough staff to accommodate full enrollment. Although under-enrollment helped offset the staffing challenges in some projects, overall, these challenges may have limited partners' abilities to connect families with services.

In some locations, telehealth was a positive, unintended consequence of the pandemic, allowing projects to reach more families. The switch to virtual or telehealth services may have bolstered some projects' capacity to serve participants, including those in rural areas. One grantee talked about how virtual offerings helped rural participants avoid the need for transportation to access services. Telehealth generally enabled providers to continue serving participants when they could not see families in person. Telehealth also allowed at least one substance use treatment provider to accommodate more participants and to receive more referrals. Another project respondent thought that telehealth, combined with low caseloads, enabled them to offer more intensive services to families.

Staff training. Cross-system trainings are widely used collaborative strategies for advancing clinical, program, and policy issues (He, 2017; Drabble et al., 2011). As noted in Section C.2., cross-system trainings helped some partners understand each other's approach to working with families, strengthened the relationships between child welfare and substance use treatment staff, and facilitated sharing case-level information across systems. For some projects, cross-training was a stated project goal, whereas for others, training was developed in response to challenges.

Of the 15 projects that discussed their staff training in detail, 8 reported that trainings facilitated their partnerships, whereas 7 noted that the trainings were not always sufficient, which may have limited collaboration. For example, respondents from two projects thought that some staffs' roles in the project, such as the care coordination and peer support roles, could have used more training to improve service coordination across systems. A respondent from another project stressed that more training was needed on the purpose of RPG, including the benefits of collaboration between systems. Yet another thought training should be provided more consistently, and throughout the duration of the project rather than just at the start.

D. Successes of RPG partnerships for supporting families

Respondents reflected on how the RPG-funded services or partnerships seemed to help families, and four themes emerged. Because this analysis was not limited to collaboration successes, it includes all 25 projects that participated in site visits.

Improved access to substance use treatment services. Although they did not all reach as many families as they hoped to, nearly all projects (21 of 25) reflected on ways the grant and resulting partnerships helped improve families' access to substance use treatment. This perceived accomplishment is notable given historically high rates of unmet need for substance

the project. Projects with no reduction in referrals might not rely wholly or mostly on child welfare for referrals, or might have been in jurisdictions that saw a rise in open child welfare cases.

use treatment (SAMHSA, 2016) and projects' intent to improve treatment access through collaborative activities such as referrals. Several projects described specific ways that services improved, including:

- Enabling faster or easier access to treatment, such as by improving the referral, assessment, or intake processes so treatment could begin sooner, or centralizing service access in one location.
- Offering intensive services and wraparound care. For instance, respondents in one project attributed families' successes to their access to intensive substance use treatment coupled with supports that encouraged engagement in the treatment and continued after discharge from residential treatment.
- Seeing families in their homes and not just in clinics. One respondent explained that home visits give substance use treatment staff clinical insights and "more opportunities to find ways to support families."
- Offering family-centered treatment models that enable parents to address substance use issues while continuing to live with and care for their children.

Respondents in some projects described further improvements they hoped to make. Several that were not routinely meeting families in person at the time of the interviews hoped that they could meet with families face-to-face once the health risks from the COVID-19 pandemic subsided. Others noted that they could use more space to serve all eligible families, or funding that would enable them to offer certain RPG supports to families that would benefit from them but were ineligible, such as those experiencing mental health challenges or domestic violence but not substance use issues.

Improved collaboration between grantees and partners. Even where grantees and partners had preexisting relationships, respondents in most projects (17 of 25) said that the RPG opportunity helped them strengthen their partnerships—a key objective of RPG. Most (16 of 25) also acknowledged there was room for more improvement. For instance, child welfare and substance use treatment staff in one project had worked together for more than a decade but interacted in the project more often than they did before RPG. Another respondent said that project team members were now more likely to reach out to each other for assistance in supporting families. As noted, some respondents also believed that the improved relationships benefitted families.

"When we all come together, children benefit."

Improved awareness and support of substance use issues. Overall, respondents from 10 of the projects thought that their partnerships have helped build awareness and support for parents or children affected by substance use through activities discussed earlier, such as cross-training and interagency case consultation. Respondents said that they had a better understanding of trauma-informed practices, root causes of youth problem behavior, and treatment approaches that are therapeutic and supportive rather than punitive. When successful, these efforts can translate into improved relationships between caseworkers and families. As respondents from two

projects noted, some families were less defensive with child welfare staff and more likely to discuss their problems openly.

Assistance for families to meet basic needs. Five projects characterized the ancillary supports they gave families enrolled in RPG projects to help them stabilize or weather the COVID-19 pandemic as important. For example, some said that their projects helped families obtain housing or other essentials, such as groceries or household supplies. Respondents from 10 projects characterized ancillary resources that support recovery as an unmet need despite the resources they received through RPG. They highlighted the need for more affordable, safe housing for families that exit residential substance use treatment or are in outpatient treatment. Families also need monetary support for necessities such as food or transportation—a need that grew during the COVID-19 pandemic.

E. Summary

In most RPG4 and RPG5 projects, child welfare agencies and substance use treatment providers formally partnered to support families, as the RPG program intended. Among these project teams, the most common joint activities were referring families and holding ongoing interagency case consultations. The degree to which child welfare agencies and substance use treatment providers collaborated on these activities varied from occasional communication to structured, frequent, and routine information sharing. Typically, child welfare and substance use treatment staff cooperated to establish a referral pathway so that families involved in child welfare could access needed treatment, and they worked as a coordinated team on ongoing, shared cases by communicating routinely and often to support families across the systems. Where no or minimal collaboration occurred, usually the projects aimed to support pregnant or postpartum women before they were involved with child welfare, or to serve children affected by parental substance use issues, but not their parents. In two instances, staff from two entities communicated about referrals but not about the RPG project services specifically.

Past collaborative endeavors were key to the progress made during the grant period. More than 75 percent of the projects reported that previous collaborations were a starting point for their RPG4 or RPG5 partnerships. Despite their shared histories, improving their collaborations was sometimes an explicit goal, and many thought that they had achieved it. Unsurprisingly, project staff said communication during frequent, regular meetings strengthened their collaboration, despite challenges some of them faced in meeting during the COVID-19 pandemic. Having enough funding and support from project and agency leaders also facilitated most partnerships, as did training staff within and across systems and having enough capacity to serve participants. Many projects, however, noted ways that staff training or their capacity could have been improved.

The COVID-19 pandemic, which disrupted referrals, enrollment, and service delivery, also contributed to substantial staffing turnover and shortages in child welfare and substance use treatment systems. This was a source of strain for the partnerships but did not derail their efforts. Grantee staff continued to inform new administrators and direct service staff at their partner

organizations about their RPG projects, and in some places, a reduction in referrals made it easier for the projects to serve families with a smaller workforce.

Despite the challenges, respondents at nearly 70 percent of projects thought that the RPG opportunity helped them strengthen their partnerships. As project staff looked forward, many hoped to continue strengthening how they worked together to support families. Although many project teams made progress in resolving common sources of disagreement between child welfare, substance use treatment, and court partners, such as on the priorities or timeline for working with families affected by parental substance use issues, they often described partnership building as a continuous process. Ultimately, though, staff viewed the partnership as a means to an end. Grantees and partners' primary goal for RPG was improving access to substance use treatment services to help families stay together, and their greatest sense of accomplishment came when they believed they had achieved that goal.

VI. COST OF SELECTED SERVICES

Projects must decide how to use their finite resources to best serve families, and cost studies can give them insight into the budgetary implications of offering specific practices. For example, information on how much expected operations will cost and what resources must be allocated to implement and sustain a practice can help projects make decisions. The RPG cost study[53] focused on understanding the cost of delivering two selected trauma-specific evidence-based practices (EBPs): (1) Seeking Safety and (2) Trauma-Focused Cognitive Behavioral Therapy (TF-CBT). It provided information about how grantees used project resources to deliver services; how project costs related to the number of individuals and families served by the projects; and what factors potentially drive project costs and variation in project costs across grantees. Grantees and other organizations could prepare for possible funding opportunities by using the cost estimates as a benchmark.

This chapter begins with a discussion of the background for the cost study and the research questions. It then provides a high-level overview of Seeking Safety and TF-CBT and of the grantees that were implementing those EBPs and were part of the study. The next section describes the methods the cross-evaluation team used to conduct the study, followed by key findings. The chapter ends with general conclusions and limitations of the cost study.

A. Background

The design of this study was shaped by work done in the second RPG cohort (RPG2) to develop and pilot instruments for collecting cost data (Burwick et al., 2017). At that time, members of the study's expert work group recommended that a cost study for RPG include: (1) EBPs used by more than one project and (2) at least one program model that served both adults and children. Ultimately, the RPG2 pilot cost-study team selected three trauma-specific EBPs that met those criteria: (1) Seeking Safety, (2) TF-CBT, and (3) Parent–Child Interaction Therapy. The team developed, tested, and refined EBP-specific instruments for those three EBPs that captured data on the resources needed to implement them and information on how staff used their time. The instruments were then ready for use in a cost study.

1. Selected EBPs

Building on earlier work, this cost study focused on two of the EBPs used by four RPG4 and RPG5 grantees: Seeking Safety and TF-CBT. No grantees in the RPG4 or RPG5 cohorts were implementing Parent–Child Interaction Therapy at the time of the cost study, so this EBP was not part of the current study.

a. Seeking Safety

Seeking Safety is a manual-based treatment for adolescents and adults with a history of trauma and substance use issues. It was designed to be implemented in a group or individual format and

[53] Office of Management and Budget approval (control number 0970-0557) received November 30, 2021.

in a variety of settings, such as outpatient, inpatient, or residential treatment programs. It has been delivered in correctional, medical, and school settings. Seeking Safety has been integrated into programs addressing issues such as substance use, mental health, domestic violence, and homelessness; and with different populations, such as veterans or women and children. The session modules cover 25 topics centering on three types of "safe coping skills": cognitive, behavioral, and interpersonal. The typical dosage is 29 sessions over 12 to 24 weeks, but the number and duration of sessions and the sequence of topics depend on participants' needs. Program developers do not require staff that implement Seeking Safety to have a specific degree or training, but the developer does offer training (California Evidence-Based Clearinghouse for Child Welfare, 2020).

b. Trauma-Focused Cognitive Behavioral Therapy (TF-CBT)

TF-CBT is a clinic-based psychotherapy model designed to treat post-traumatic stress and related emotional and behavioral problems in children and adolescents ages 3 to 18. Initially developed to address psychological trauma associated with children experiencing sexual abuse, the model has been adapted for use with children who have had other traumatic experiences, including domestic violence and loss. TF-CBT is typically delivered in 12 to 16 sessions designed to facilitate parent–child discussions about trauma. Most sessions are 60 minutes long, with the child and parent separately meeting with the therapist for 30 minutes each. Later in the treatment, there may be joint sessions for the child and parent to meet with the therapist, if appropriate. TF-CBT can also be delivered in group sessions. A variety of mental health professionals use TF-CBT, including clinical social workers, professional counselors, psychologists, psychiatrists, and clinical counselors. Therapists must hold a master's degree or higher to be certified in TF-CBT (Children's Bureau, 2018).

2. Research questions

The cost study addressed two research questions:[54]

- What resources are necessary to deliver selected trauma-specific EBPs at a steady state, and how are costs allocated across resource categories?
- What is the average cost to agencies when implementing a selected trauma-specific EBPs to a participant enrolled in an RPG project?

3. Grantees

The cross-site evaluation team asked nine grantees that planned to provide at least one of the selected EBPs to participate in the cost study. Five were providing one of the three EBPs; four grantees[55] agreed to participate and provided data. Three grantees used Seeking Safety and one

[54] The cross-site evaluation team also planned to examine the start-up costs associated with the selected trauma-specific EBPs and the types of resources needed to plan for and initiate service delivery. Because these projects began many years ago, the burden on respondents to generate reliable estimates would have been too great, so the team did not pursue this research question.

[55] Two grantees were from the same organization and provided different EBPs under two separate RPGs.

grantee used TF-CBT in their projects. No grantees were implementing Parent–Child Interaction Therapy at the time of the cost study. Two of these projects were funded under RPG4, and two were funded under RPG5. Because of the small sample size for each RPG cohort, the results for both cohorts are combined.

The three grantees implementing Seeking Safety delivered services to their participants in different modes:

- One grantee delivered services to families in participants' homes.
- One grantee delivered services to individuals in person at participants' homes, in their communities, or virtually, as COVID-19 pandemic restrictions and participant preference dictated.
- One grantee delivered services in a group setting at an outpatient clinic.

The one grantee providing TF-CBT delivered services to families in its offices.

B. Methods

The cost study had two data sources: (1) a cost workbook of detailed expenditure data, and (2) a staff survey and time log reporting how staff spent time on each trauma-specific EBP. For the cost workbook, grantees selected a one-year period to report on based on their expenditure tracking preference. The four grantees selected three different but overlapping time frames, with the earliest starting in July 2020 and the latest starting in March 2021. In March 2022, all grantees collected staff survey and time use data for one month. The staff time logs were tailored to the program components of the specific EBP, as designed by the pilot study. Grantees completed both types of data collection from February to June 2022. Note that the time frames for the data sources did not consistently align. Information included in the cost workbook does not reflect the specific program circumstances for staff included in the staff survey and time log. More information about the data collection is in Appendix F.

For each trauma-specific EBP, the cross-site evaluation team performed three analyses:

1. The team estimated the typical total and per-individual or per-family cost of delivering the trauma-specific EBP. Respondents provided information from project records to estimate total costs of implementing the EBP during the reporting period. To calculate the cost per individual or family, the team relied on service log data to capture the number of individuals and families served during the cost workbook's time frame.
2. The team examined the proportion of costs allocated to each of the eight resource categories described in the cost workbook, such as salaries and fringe benefits, supplies and materials, equipment, and office space and other facilities. Proportions were calculated by dividing the total costs for each resource category by the overall total cost of implementing the EBP.
3. The team examined the amount of time staff spent on different program components, using time log data from the staff survey to examine how staff spent their time on implementing the EBP.

C. Limitations

The cost study analysis has several limitations that should be kept in mind when interpreting its findings. First, this study relied on data from a sample of four grantees; this sample was not representative of RPG overall or all EBP providers. Therefore, the findings from this study cannot be generalized to those larger groups. Second, although the study highlighted differences in estimated costs by EBP provider, it cannot show causal relationships between RPG provider characteristics and EBP program costs. Third, all data in this study were self-reported by grantees. As a result, there could be variation in how data were collected and in the amount of missing data, which could be a source of additional bias or error. Fourth, when grantees reported resources that they did not pay for but did use to implement the EBP, such as facility space, the cross-site evaluation team estimated the value of those resources, and the estimates may not be accurate in an organization's specific context. (Appendix F has additional information on the methodology used for the analysis.) Finally, as noted, the time frame for the cost workbook and the time frame for the staff survey and time log data did not consistently overlap, and therefore the cost data do not reflect the program circumstances for the staff included in the staff survey and time log.

D. Results

1. What do the EBPs cost?

Table VI.1 shows that the average annual cost for implementing Seeking Safety was just under $40,000 per year, with an average cost of just over $1,800 per individual or family. The grantees offering Seeking Safety reported a wide range of annual operating costs, with the most expensive operating costs 10 times higher than the least expensive (ranging from $7,451 in Grantee 3 to $79,680 in Grantee 1). This difference was driven by the costs for staff implementing the EBP (based on salary and fringe benefits and the percentage of time staff spent delivering the EBP[56]) along with the percentage of the grantee's indirect or overhead costs that were allocated to the EBP.

The annual cost for the one grantee implementing TF-CBT was just over $2,000, with the per-individual or per-family cost about $185 per year (Table VI.1).

The costs related to the selected trauma-informed EBPs represented a small portion of these grantee organizations' total annual expenditures. For all four grantees, the cost to implement the EBP was less than 1 percent of the organization's total annual expenditures (Table VI.1). For each item listed in the workbook, respondents were asked to report the cost during the reporting period and indicate the percentage of that cost that was used specifically to implement the EBP

[56] Grantee 1 had five staff members that implemented Seeking Safety, and Grantee 3 had eight implementing it. However, staff at Grantee 1 allocated more time to Seeking Safety (15 percent, on average) than staff at Grantee 3 did (2 percent, on average), and Grantee 1 paid a larger proportion of the staff's fringe benefits than Grantee 3 did (on average, 40 percent and 20 percent, respectively). As a result, larger percentages of Grantee 1 personnel costs were included in the costs to implement Seeking Safety, and this accounted for a large portion of the cost differential between the grantees.

as opposed to other programs within the organization. Across all four grantees, less than 10 percent of each reported cost category (staff time, supplies and materials, equipment, facilities, and indirect costs) was used specifically to implement the EBP (not shown in table).

Table VI.1. EBP annual cost and cost per individual or family

	Total annual cost for EBP	Total individuals or families served	Total cost per individual or family	Percentage of grantee's total annual expenditures used for EBP
Seeking Safety				
Grantee 1	$79,679.19	30	$2,655.97	0.78%
Grantee 2	$32,676.49	13	$2,513.58	0.45%
Grantee 3	$7,450.99	26	$286.58	0.08%
Mean	*$39,935.56*	*23*	*$1,818.71*	*0.46%*
Trauma-Focused Cognitive Behavioral Therapy				
Grantee 4	$2,044.73	11	$185.88	0.02%

Note: Total annual costs were restricted to those related to the implementation of the EBP and were adjusted to a national average. "Total individuals or families served" shows the number of individuals or families that received services during the reporting period.

Source: Cost workbooks completed by grantees in March 2022. Participant counts were retrieved from RPG-Evaluation Data System in June 2022.

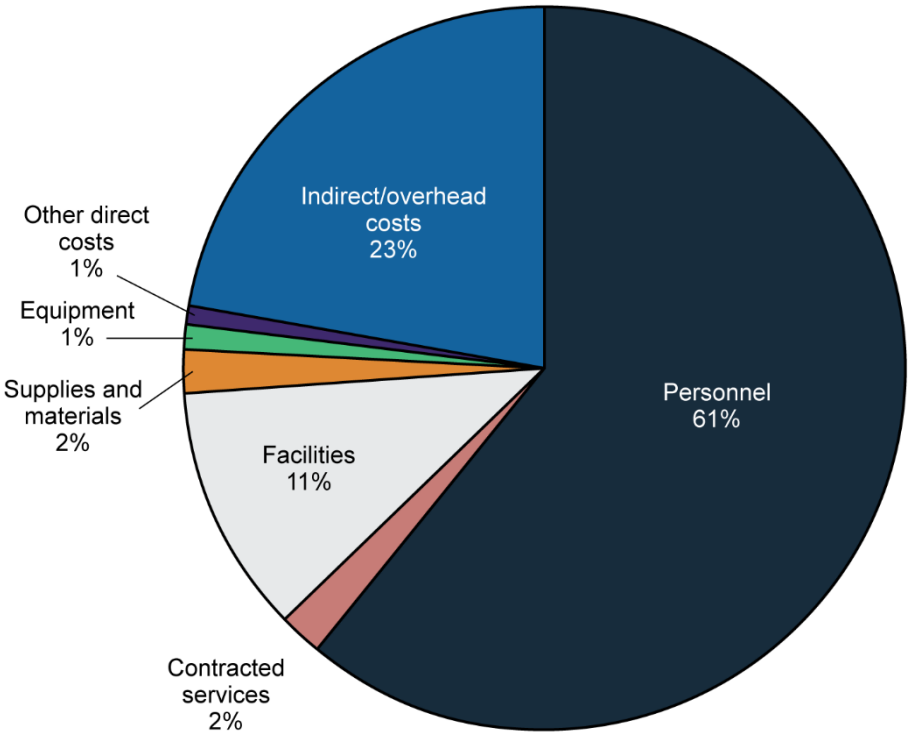
For both Seeking Safety and TF-CBT, the largest cost driver was personnel (Figures VI.1 and VI.2), including costs for staff salaries, fringe benefits, and paid overtime during the reporting period. For the three grantees implementing Seeking Safety, personnel accounted for an average of 61 percent of their total costs. The TF-CBT grantee reported a similar percentage (56 percent) of its costs were allocated to personnel. Though personnel represented the largest cost category, staff did not spend a significant percentage of their total work hours on implementing the EBP (on average, only 6 percent of their time).

Indirect or overhead costs were the second largest cost driver for the implementation of both EBPs. As shown in Figures VI.1 and VI.2, indirect or overhead costs accounted for about one-quarter to one-third of program costs (23 percent for Seeking Safety and 38 percent for TF-CBT). All four grantees reported paying an agency-established indirect rate (ranging from 12 to 20 percent of their total budget) for costs during the reporting period for shared functions such as administrative and support staff, rent and utilities, internet and phone services, and general supplies. Each grantee allocated between 1 and 25 percent of the total indirect cost rate to support the implementation of the EBP during the reporting period.

Facility costs were the third largest cost driver, averaging less than 10 percent of the total cost for both EBPs (Figures VI.1 and VI.2). The grantees paid directly for most, if not all, of the space they used to implement the selected trauma-informed EBP services, including office space and rooms to conduct administrative and project services as needed. When grantees reported facility space used at no cost to the project, they reported space in a shared building within the broader organization that was not a specific line item in their budgets. Although this was the third largest cost driver for both EBPs, little facility space was needed to implement the EBP because two of

the three grantees implementing Seeking Safety delivered the intervention outside office settings in participant homes, communities, outpatient clinics, or virtually. If the EBP were implemented in an office setting, the expected facilities costs (calculated as the cost for the percentage of total building space used in a given week to implement the EBP) would likely be higher because more physical space would be needed to offer services in house. The one grantee implementing TF-CBT delivered program services in its offices.

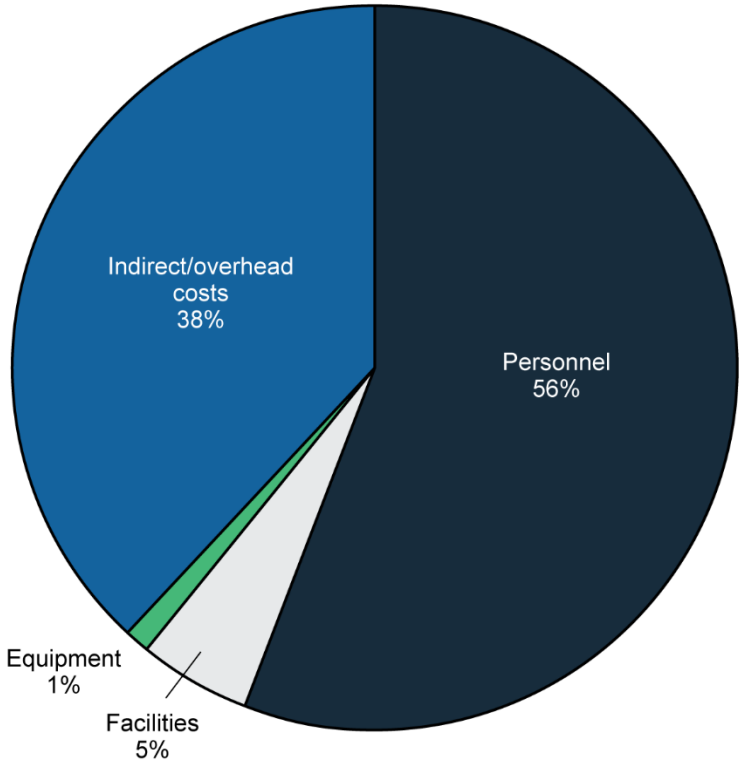
Figure VI.1. Percentage allocation by resource category for Seeking Safety



Note: Total annual costs were restricted to the implementation of the EBP and were adjusted to a national average. Totals may not add to 100 due to rounding.

Source: Cost workbooks completed by grantees in March 2022. Participant counts were retrieved from the RPG-Evaluation Data System in June 2022.

Figure VI.2. Percentage allocation by resource category for TF-CBT



Note: Total annual costs were restricted to the implementation of the EBP and were adjusted to a national average. Three categories are omitted from this figure because the grantee reported no costs in these categories: contracted services; supplies and materials; and other direct services. Totals may not add to 100 due to rounding.

Source: Cost workbook completed by one grantee in March 2022. Participant counts were retrieved from the RPG-Evaluation Data System in June 2022.

The remaining costs to operate the EBPs were allocated to supplies and materials, contracted services, other direct costs, and equipment. Because these costs were adjusted for the useful life of the object and restricted to use on the EBP, they were generally a small proportion of each program's costs.

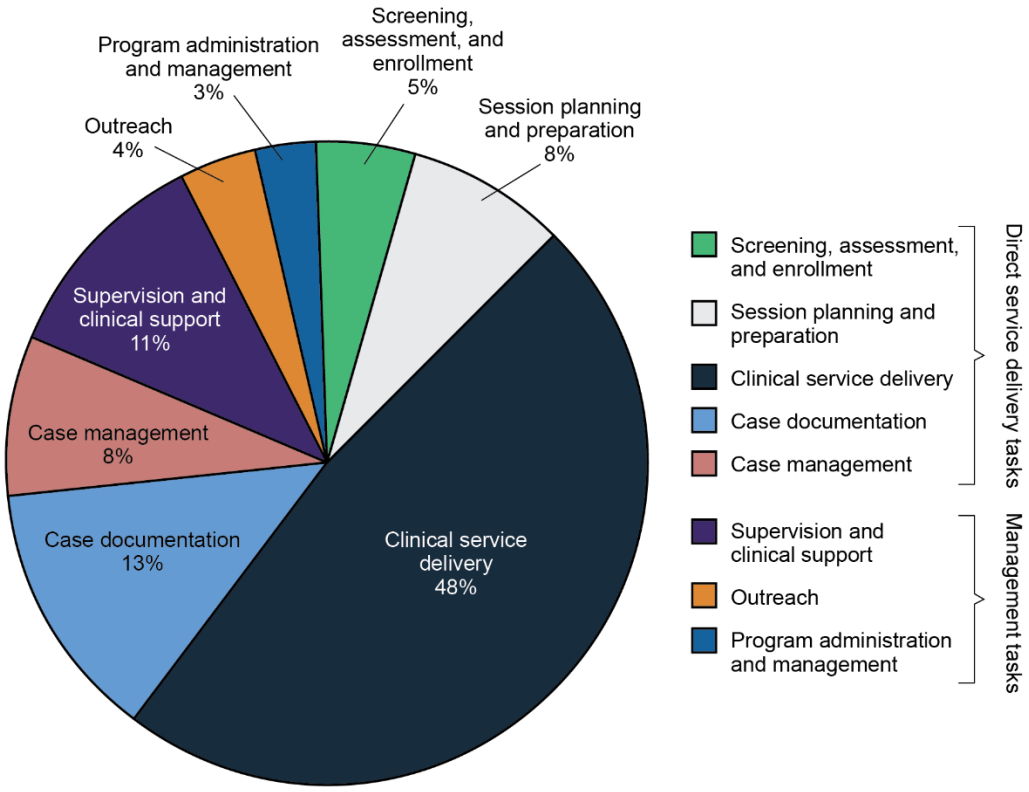
2. What training did staff receive?

Across both EBPs, all staff received an initial training on the EBP they delivered, but no additional or ongoing training outside of regular supervision or clinical support. An initial training refers to formal or structured training staff received before delivering the EBP to participants. On average, staff received 4.6 hours of initial training, ranging from 1 to 10 hours total. Training was usually done by another staff member at their agency. No staff reported receiving any additional or ongoing training (not including regular supervision or clinical support) in the previous 12 months (approximately April 2021 to March 2022). Additional or ongoing training is defined as formal or structured training staff received after they started providing EBPs, such as a session to review EBP concepts or methods.

3. How did staff spend their time?

The staff time use logs show how staff spent their time on program components such as direct delivery of program services (for example, clinical service delivery and case documentation) and program management (for example, supervision and clinical support). Staff spent the majority of their time on clinical service delivery of the EBP, averaging almost 50 percent for Seeking Safety grantees and more than 60 percent for the TF-CBT grantee (Figure VI.3 and VI.4). Staff spent the least amount of time on management tasks (supervision and clinical support, general EBP outreach, and program administration and management): less than 20 percent of their time for Seeking Safety staff and less than 5 percent for TF-CBT staff.

Figure VI.3. Average percentage of staff time allocated to program components for Seeking Safety



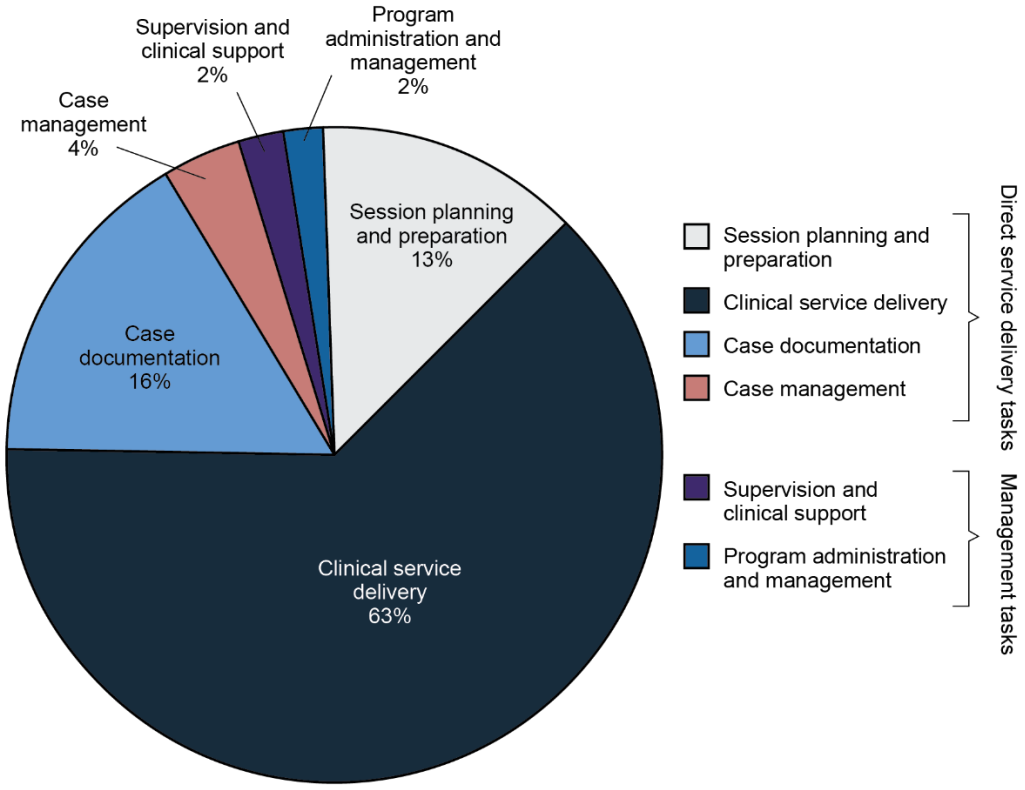
Note: Results based on 12 staff from 3 grantees. Direct service delivery tasks include services delivered to groups and individuals.

Source: Staff time use logs completed in March 2022.

On most days in the 30-day data collection period, no staff at any of the four grantees were providing Seeking Safety or TF-CBT. One staff member provided Seeking Safety every workday during the data collection period, but other staff delivered Seeking Safety from 1 to 11 days. Staff who were providing TF-CBT did so for 4 to 12 days during the 30-day data collection period.

Grantees implementing both EBPs allowed staff to deliver services remotely to follow COVID-19 precautions, although this did not happen often. Of the 12 staff members administering Seeking Safety, 2 delivered services remotely, and only for 2 days in the 30-day data collection period. Both staff members delivering TF-CBT delivered services remotely for three days.

Figure VI.4. Average percentage of staff time allocated to program components for TF-CBT



Note: Results based on two staff from one grantee. Three program components were not included in this figure as staff reported spending no time on them: screening, assessment, and enrollment; travel and transportation; and outreach.

Source: Staff time use logs completed in March 2022.

E. Summary

1. EBP costs

Although the three largest cost drivers for both Seeking Safety and TF-CBT were for: (1) staff salaries, fringe benefits, and overtime; (2) indirect or overhead costs; and (3) facilities, the total cost to implement both EBPs represented a small portion of a grantee's overall operating costs.

- More than half of the costs for both EBPs were allocated to personnel (61 percent for Seeking Safety and 56 percent for TF-CBT). Although this represents the largest cost category, the data showed that staff did not spend a significant percentage of their total work hours on implementing the EBP (on average, only 6 percent of their time).

- About one-quarter to one-third of the costs of implementing the EBPs were driven by indirect or overhead costs to the grantee organization (23 percent for Seeking Safety and 38 percent for TF-CBT) for resources such as administrative and support staff, rent and utilities, internet and phone services, and general supplies. Again, on average, only 10 percent of the total indirect or overhead costs were needed to support implementation of the EBPs.
- The costs of facilities to implement the EBPs (the third-largest cost driver at about 10 percent of the overall cost) were often small. Many grantees implemented the EBPs outside of office settings and therefore used a small amount of space in existing buildings for brief periods throughout the week, for program administration and delivery.

These data suggest that Seeking Safety and TF-CBT can be implemented without incurring significant costs for additional resources such as contracted services, supplies and materials, new equipment, or other significant direct costs. Although grantees offering Seeking Safety outside of office settings incurred costs for travel and mileage reimbursement, these costs were less than $400 per year ($374 per year on average).

2. Staff training

There are no mandatory training requirements for staff implementing Seeking Safety; however, the program developers do offer training to those who are interested. TF-CBT does have mandatory training requirements; staff must obtain certification before beginning implementation to ensure that they administer treatment with fidelity to the model. All staff reported completed voluntary or mandatory trainings that were paid for by their grantee employer, although that training may have taken place many years ago. No staff reporting ongoing or refresher trainings, but these are not required by either EBP.

3. Staff time use

Each of the two EBPs examined in this study was one of many interventions that the grantees delivered to their participants. Neither Seeking Safety nor TF-CBT were the primary intervention for the RPG projects in the sample. This is reflected in both how often staff spend time delivering the EBPs out of their total time working and in the EBP's small impact on grantees' budgets. Although some staff occasionally administered EBPs remotely because of precautions taken in response to the COVID-19 pandemic during the data collection time frame, administration practices generally stayed the same, with services taking place in participants' homes, communities, and clinics.

VII. HOW DID FAMILIES IN RPG4 CHANGE OVER TIME?

RPG's purpose is to improve the well-being, permanency, and safety of children who are in or at risk of out-of-home placement as a result of their parents' or caregivers' substance use issues. This chapter explores whether participants' outcomes improved after they received RPG4 services. The outcomes analysis examined the following five domains of interest to Congress and the CB: (1) adult recovery, (2) family functioning, (3) child safety, (4) permanency, and (5) child well-being:

1. **Adult recovery.** RPG services are intended for families with caregivers who have substance use issues, which is one of the most common risk factors for maltreatment of children (HHS, 2023a). In addition, only one-fifth of parents whose child was involved with the child welfare system successfully completed substance use treatment, compared with about half of those seeking treatment in the general population (Brady & Ashley, 2005; Choi & Ryan, 2006).
2. **Family functioning.** Parents and other adult caregivers play a critical role in the development of the children they are responsible for. It is their job to ensure children have the health, safety, nurturing, and guidance they need to grow and develop into well-functioning adults. Parental mental health and parenting quality are linked to the risk of child maltreatment and poor outcomes for children (Budd et al., 2006; Dubowitz et al., 2011; Sidebotham et al., 2001).
3. **Child safety.** In 2021, CPS agencies received an estimated 3.9 million referrals alleging maltreatment of about 7.2 million children (HHS, 2023a). CPS screened in 2 million referrals for investigation or alternative response and determined that about 600,000 children were victims of child abuse and neglect. Of the substantiated claims, more than 76 percent of victims were neglected; about 16 percent were physically abused; 10 percent were sexually abused; and 0.2 percent were victims of sex trafficking. The negative impacts of maltreatment are well documented (Casanueva et al., 2012).
4. **Permanency.** Children benefit from consistency, predictability, and attachment to a caring adult, which can be disrupted when they are not in a permanent living situation with their family of origin or adoptive family (Casey Family Programs, 2018). Conversely, placement instability delays permanency and is associated with increased risks for children. For example, children without placement stability had a substantially increased risk of behavioral problems compared with children who did have stability in foster care (Rubin et al., 2007). They are at risk for diminished academic outcomes, poor socioemotional health, and weak attachments (Gauthier et al., 2004) and may have a weaker capacity to regulate stress than children with consistent caregivers do (Dozier et al., 2002).
5. **Child well-being.** Children whose caregivers have substance use problems are at risk for being maltreated or involved with child welfare. Maltreatment can have lasting implications for children (Institute of Medicine & National Research Council, 2013). For example, it has been found to be associated with poor social-emotional and behavioral adjustment (English et al., 2005; Font & Berger, 2015), as well as diminished academic and cognitive performance

(Crozier & Barth, 2005; Jaffee & Maikoich-Fong, 2011; Mills et al., 2011) and increased risky behaviors and depression (Arata et al., 2005), compared to children who have not experienced maltreatment.

This chapter begins with a description of the methods used for the analysis, including statistical adjustment for nonresponse (Section A). Next, it discusses the theoretical framework supporting this analysis (Section B). The chapter moves on to examine outcomes by domain: adult substance use and treatment (Section C), family functioning (Section D), safety and permanency (Section E), and child well-being (Section F). The last section covers the limitations of the analyses.

A. Methods

To understand how individuals change, it is necessary to have data on outcomes of interest at two points in time. For the RPG cross-site evaluation, HHS expected projects to administer standardized instruments to adults and children at project entry—referred to as baseline—and at project exit (successful completion or dropout), referred to as follow-up. As explained in Chapter II, which described measures in the five domains at baseline, the standardized instruments collected data on adults and on the focal children in their care. Projects also obtained administrative child welfare and SUD treatment data. Appendix G includes information on the data and methods used to summarize outcome data in this chapter, along with results of the sensitivity analysis.

1. Nonresponse and weighting

A substantial proportion of the eligible sample did not have both baseline and follow-up data on child well-being, adult substance use issues, and family functioning outcomes (obtained from standardized instruments). The proportion of the eligible sample that contributed to this analysis ranged from 17 percent to 38 percent of eligible children or adults across the standardized instruments.

To understand who was included in the analyses, the cross-site evaluation team compared the samples of individuals with and without follow-up measures to reveal how they differed from each other. The subset of individuals who had both baseline and follow-up data differed on some demographic characteristics from those who did not at both time points, although the two groups were not different on the outcomes' baseline values. Because of the differences, the families in the analysis cannot provide information that is representative of the full population of families served by RPG4. (Appendix G details the response rates and the differences between the two groups.)

To address this concern, the cross-site evaluation team created nonresponse weights to improve the representativeness of the data (Rubin, 1976; Rubin, 1987; Little & Rubin, 2002). The team used these nonresponse weights to estimate all descriptive statistics (means and standard deviations, and the proportion of individuals characterized as high risk by their scores on or

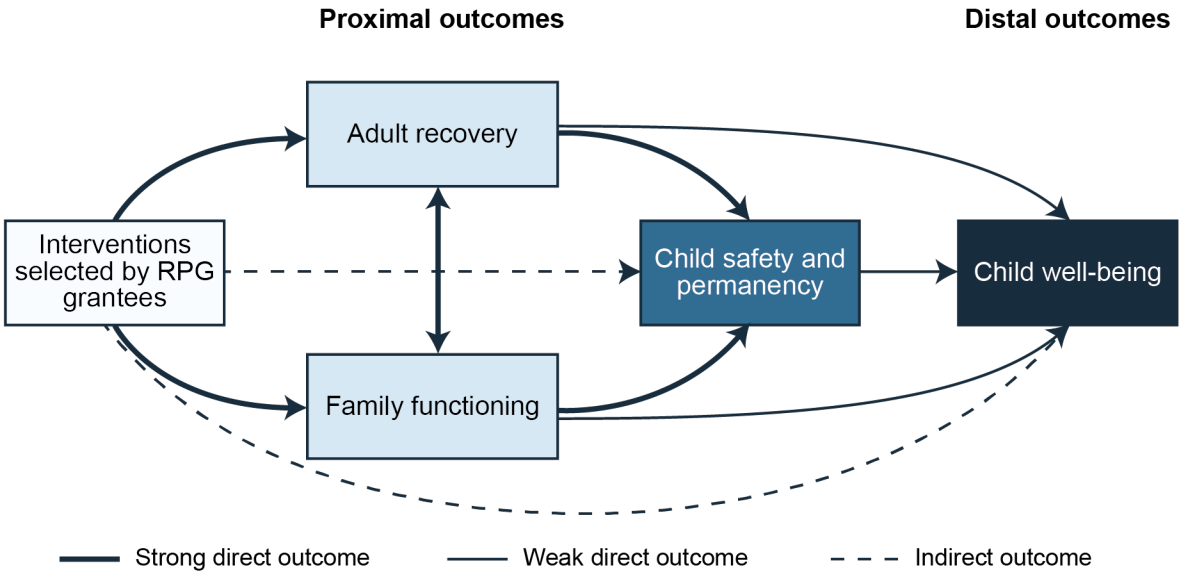
responses to the instrument), along with inferential tests of the differences in the outcomes over time.

This chapter focuses on the results of the benchmark analyses, which used the nonresponse weights for outcomes measured using standardized instruments and unweighted data for outcomes measured with the administrative data (because administrative data were available for all eligible RPG4 participants of grantees that submitted these data). The cross-site evaluation team also conducted a variety of sensitivity analyses; for example, not using weights. (Appendix G includes detailed findings from the sensitivity analyses.) The sensitivity analyses showed that the patterns of findings were similar to the benchmark estimates.

B. Framework

Figure VII.1 is an illustrative framework for examining and understanding the changes in adult and child outcomes from project entry to exit. As presented in Chapter III, most services offered by RPG4 projects focused on substance use treatment, parenting, or therapy. Notably, these projects focused on serving adults; therefore, adult recovery and family functioning outcomes were most proximal to the intervention focus and most susceptible to change (World Health Organization, 2002).

Figure VII.1. Framework illustrating relationships between the RPG program and all outcome domains



In addition to being the outcome domains most likely to change because of the intervention, the adult recovery and family functioning domains influence each other. Improvements in one outcome domain are likely to have spillover effects on the other—that is, as recovery improves, family functioning improves (and vice versa). For example, reduced drug use could directly improve mental health; conversely, improved mental health could lead to reduced drug use. However, analyses comparing outcomes at project entry and exit cannot demonstrate that any improvements in outcomes were caused by the RPG project.

Although RPG4 services were primarily designed for adults, improvements in adult outcomes may directly influence child safety and permanency, which is indicated by the bold solid arrows in Figure VII.1. Several studies have shown that improvements in the adult outcomes can affect child safety and permanency (Staton-Tindall et al., 2013; Testa & Smith, 2009; Berger, 2004; Chaffin et al., 1996; Shay & Knutson, 2008). The literature also shows that the proximal outcomes of adult recovery affect child well-being more directly than the intervention does (Solis et al., 2012; Hussong et al., 2007, 2008), and so do family functioning (Masten et al., 2006, 2011; Neece et al., 2012), and improvements in child safety and permanency (Viezel et al., 2014; Becker-Weidman, 2009).

The dotted line shows the weaker link from the RPG4 project interventions to child outcomes. Although child well-being was a goal of the grant program, Chapter III revealed that most projects' services focused on reducing adult substance use and improving parents' well-being. Few projects provided services designed to directly address child well-being. Consequently, any improvements in child well-being outcomes would probably occur indirectly, through changes in adults' outcomes, and child well-being might not have improved as much as other outcomes examined in the cross-site evaluation. That is, most of the interventions were not explicitly designed to directly influence these child well-being outcomes. Any improvements in child well-being would have occurred only because of improvements in adult outcomes. Child well-being is presented as a distal outcome domain in the framework.

C. Adult substance use and participation in treatment

RPG4 projects provided services to improve parents' or caregivers' substance use and treatment outcomes because these outcomes might influence the safety, permanency, and well-being of children in their families. The cross-site evaluation measured adults' substance use and participation in treatment in the recovery domain.

1. Adult substance use

Adults reported decreased use of both drugs and alcohol between project entry and project exit. However, this finding is based on a response rate of about 34 percent, or approximately 340 to 350 adults from 16 grantees. (See Appendix G for a discussion of the differences between adults who had data at both project entry and exit and those who did not.) The mean drug use severity score decreased from 0.12 to 0.06, or from slightly below the high severity threshold to further below the threshold, representing a statistically significant improvement as shown in Table VII.1. The high severity drug use threshold is 0.15 and 0.10 for females and males, respectively. The percentage of adults categorized by the cross-site evaluation as having high-severity substance use (individuals with drug use severity scores higher than the average score of a nationally representative sample of adults enrolled in substance use treatment) decreased by 21 percentage points, from 31 to 10 percent.

Table VII.1. Change in substance use by adults, from project entry to project exit

Substance	Sample size	At project entry		At project exit		Change from project entry to exit	
		Mean score (SD)	Percentage in high-severity category	Mean score (SD)	Percentage in high-severity category	Mean change score	Percentage in high-severity category
Drug use	353	0.12 (0.18)	31	0.06 (0.16)	10	-0.06*	-20*
Alcohol use	352	0.07 (0.12)	11	0.03 (0.07)	3	-0.04*	-8*
Use of drugs or alcohol or both	339	n.a.	37	n.a.	13	n.a.	-24*

Notes: Higher scores on the ASI-SR indicate greater severity of substance use. Change scores might not exactly match the simple difference in the two time points due to rounding.

Sample sizes are based on the 16 projects in RPG4 that submitted the ASI-SR data. Sample sizes vary by measure because of item nonresponse.

* Statistically significant difference between time points at the .05 level.

n.a. = not applicable; SD = standard deviation.

Source: Results of the Addiction Severity Index, Self-Report Form (ASI-SR) instrument, administered at project entry and project exit, including data submitted to the cross-site evaluation through March 11, 2022. Results in this table were adjusted using nonresponse weights.

The decrease in severity of alcohol use was also statistically significant, but smaller in magnitude. Alcohol use at project entry was less prevalent than drug use, with 11 percent of the RPG4 sample in the high-severity category at project entry. By project exit, 3 percent of adults scored in the high-severity category, and the alcohol use mean score decreased by a statistically significant 0.04 points. The high severity alcohol use threshold is 0.20 for females and 0.22 for males.

The prevalence of high-severity use of either drugs or alcohol also declined significantly over time. At project entry, about 37 percent of individuals were categorized as having high-severity substance use, and at project exit, this had decreased to 13 percent.

For all the specific drug types examined in the cross-site evaluation, there were reductions in the prevalence of recent use between project entry and project exit (Table VII.2). The largest absolute reduction observed was in the percentage of adults using cannabis in the past 30 days, followed by opioids. Cannabis was the most commonly used drug at project entry (28 percent) and had a reduction of 14 percentage points from project entry to exit, or a decrease of nearly 50 percent. At project entry, about 17 percent of adults reported using opioids (18 percent used heroin; 10 percent used other opioids/analgesics; and 12 percent used methadone), whereas at project exit, only 9 percent of adults reported using these drugs—a reduction of 47 percent.

Table VII.2. Change in the percentage of adults using each type of drug from project entry to project exit

Type of drug	At project entry	At project exit	Change from project entry to exit
Cannabis[a]	28	15	-14*
Opioids	17	9	-8
Heroin	18	9	-9*
Methadone	12	8	-4
Other opioids/analgesics[b]	10	8	-3
Amphetamines[c]	11	7	-4
Cocaine[d]	7	7	-0
Sedatives/hypnotics/tranquilizers[e]	8	7	-1

[a] Cannabis includes marijuana, hashish, and pot.

[b] Other opioids/analgesics include morphine; Dilaudid; Demerol; Percocet; Darvon; Talwin; codeine; Tylenol 2,3,4; cough syrups; Robitussin; and fentanyl.

[c] Amphetamines include monster, crank, Benzedrine, Dexedrine, Ritalin, Preludin, methamphetamine, speed, ice, and crystal.

[d] Cocaine includes cocaine crystal, free-base cocaine, or "crack," or "rock."

[e] Sedatives/hypnotics/tranquilizers include Valium, Xanax, Librium, Ativan, Serax, Quaaludes, Tranxene, Dalmane, Halcion, and Miltown.

Note: Records for 357–365 adults were examined to obtain these statistics. Sample sizes vary by substance because of item nonresponse. Change scores might not exactly match the simple difference in the two time points because of rounding.

* Statistically significant difference between time periods at the .05 level.

Source: Administration of Addiction Severity Index, Self-Report Form (ASI-SR) instrument at project entry and project exit, including data submitted to the cross-site evaluation through March 11, 2022. Results presented in this table were adjusted using nonresponse weights.

2. Participation in substance use treatment

There was no change in the percentage of adults in publicly funded substance use treatment programs for the year after they enrolled in RPG4 compared with the year before RPG4 entry. During the year after they enrolled in RPG4, however, they were more likely to complete the substance use treatment programs. Table VII.3 shows that in the year before enrolling in RPG4, 39 percent of adults had enrolled in a publicly funded treatment facility, and 17 percent of them ultimately completed the program during that year. In the year following RPG4 entry, 37 percent of adults enrolled in a program (not significantly different from before RPG4 enrollment), and 28 percent of enrolling adults completed the program during that year (a statistically significant increase of 11 percentage points). However, these results are only from eight grantees that submitted recovery data. The nine other grantees were unable to obtain recovery data from the state or local substance use treatment agencies in time for the data to be used in this report.

Table VII.3. Change in participation in substance use treatment: year before to year after RPG4 enrollment

Recovery measure	In the year before RPG4 enrollment		In the year after RPG4 enrollment		Change between years
	Sample size	Percentage	Sample size	Percentage	
Percentage of adults enrolled in at least one substance use treatment setting[a]	366	39	366	37	-2
Percentage of those enrolled in at least one instance of substance use treatment who completed the program[b]	142	17	136	28	11*

[a] Restricted to adults who had data at both time points.

[b] Restricted to adults who enrolled in substance use treatment in a given period; the same adults did not necessarily enroll in substance use treatment in the year before and after RPG enrollment.

* Statistically significant difference between time periods at the .05 level.

Note: Sample sizes are based on eight projects that submitted the substance use treatment data for the year before and the year after RPG4 enrollment.

Source: Administrative data from state substance use services agencies on treatment participation in the year before and the year after RPG4 enrollment. Data obtained by grantees and submitted to the cross-site evaluation through March 11, 2022.

3. Trauma symptoms

Adults reported fewer symptoms of trauma at project exit than at project entry. Table VII.4 shows that among adults with data at both time points, there was a decrease in the average trauma symptoms score, from 25.2 at project entry to 18.1 at project exit. This is a statistically significant change, indicating that adults had fewer experiences of post-traumatic symptoms at project exit. The TSC-40 was an optional measure for grantee data collection. The result is based on data from 270 adults across the 12 grantees that submitted data on trauma symptoms, representing a 35 percent response rate among those grantees.

Table VII.4. Change in adult depressive symptoms and trauma symptoms from project entry to project exit

Measure	Sample size	At project entry		At project exit		Change from project entry to exit	
		Mean score (SD)	Percentage in high-severity category	Mean score (SD)	Percentage in high-severity category	Mean change score	Percentage in high-severity category
Depressive symptoms	409	10.8 (8.5)	28	7.6 (7.7)	17	-3.2*	-12*
Adult trauma symptoms	270	25.2 (17.5)	n.a.	18.1 (15.4)	n.a.	-7.1*	n.a.

Note: Depressive symptoms were assessed using the Center for Epidemiologic Studies Depression Scale-Short Form (CES-D), and childhood/adult trauma symptoms were assessed using the Trauma Symptoms Checklist (TSC-40). Higher scores on these measures represent worse mental health outcomes. Change scores might not exactly match the simple difference in the two time points because of rounding.

Sample sizes are based on the 17 projects that submitted the CES-D data and 12 projects that submitted the TSC-40 data. The TSC-40 was an optional measure. Sample sizes vary by measure also because of item nonresponse.

* Statistically significant difference between time points at the .05 level.

n.a. = not available; SD = standard deviation.

Source: Administration of the standardized instruments at project entry and project exit, including data submitted to cross-site evaluation through March 11, 2022. Results in this table were adjusted using nonresponse weights.

4. Summary of outcomes: adult substance use and participation in treatment

Adult drug and alcohol use and severity and trauma symptoms decreased significantly from project entry to exit. For example, 37 percent of adults were classified as having high-severity substance use at project entry, and only 13 percent were classified as having high-severity use at project exit. Adults reported fewer symptoms of trauma at project exit than at project entry. Though adults in the RPG4 projects had no change in their enrollment in publicly funded substance use treatment programs, they were more likely to complete these programs while enrolled in RPG4, compared to the year before their enrollment in RPG4.

D. Family functioning

Although adult misuse of substances is a key risk factor for child maltreatment and involvement in the child welfare system (HHS, 2023a), it often does not exist in isolation from other challenges. Commonly, substance use, mental health problems, and limitations with parenting skills and attitudes coexist and negatively reinforce one another (Lander et al., 2013). The cross-site evaluation measured each of these adult characteristics under the family functioning domain.

1. Depressive symptoms

Adults reported fewer symptoms of depression at project exit than at project entry. Table VII.4 shows that the average score on the depressive symptoms instrument decreased from 10.8 (moderately depressed) to 7.6 (mildly depressed), a statistically significant decrease. This change represents an improvement in primary caregivers' mental health. In addition to the reduction of symptoms, at project exit fewer adults scored in the high-severity category for depressive symptoms, a statistically significant decrease of 12 percentage points. However, this result is based on data from only 409 adults from 17 grantees that submitted CESD data, which is a 38 percent response rate. (See Appendix G for differences between adults who had data at two time points and those who did not.)

2. Parenting attitudes and skills

There were statistically significant improvements in the five parenting attitudes, as shown in Table VII.5. In three measures, primary caregivers' subscale scores decreased from project entry to exit, indicating a reduced risk for maltreatment of their children after participating in RPG4. These subscales are: (1) inaccurately perceive the skills and abilities of the child, (2) lack awareness of child's needs, and (3) believe in physical punishment. In addition, in a statistically significant finding, fewer adults were characterized as at high risk for maltreatment on one other

subscale (reverse parent-child role and look to the child for comfort). However, these results are based on data from only 407 adults in the 17 projects that submitted the data, which is a 37 percent response rate.

Table VII.5. Change in caregivers' parenting attitudes from project entry to project exit

Parenting attitudes	At project entry		At project exit		Change from project entry to exit	
	Mean score (SD)	Percentage in high-severity category	Mean score (SD)	Percentage in high-severity category	Mean score (SD)	Percentage in high-severity category
Inappropriate expectations for child	6.1 (1.5)	16	5.7 (1.6)	12	-0.3*	-4
Lack of empathy for child's needs	6.9 (1.8)	37	6.4 (2.2)	31	-0.5*	-7
Values corporal punishment	5.8 (1.7)	14	5.1 (1.7)	14	-0.7*	-0
Treats child like an adult peer, not a child	6.0 (2.0)	16	6.2 (2.0)	9	0.2	-7*
Oppresses child's independence	5.8 (1.6)	23	5.7 (1.6)	22	-0.1	-1

Notes: The AAPI-2 scales are transformed so that higher scores indicate a negative parenting attitude. Change scores might not exactly match the simple difference in the two time points because of rounding.

Sample sizes on all measures are 407 adults based in the 17 projects that submitted the AAPI-2 data.

* Statistically significant difference between time periods at the .05 level.

SD = standard deviation.

Source: Administration of the Adult-Adolescent Parenting Inventory-2 (AAPI-2) at project entry and project exit, including data submitted to the cross-site evaluation through March 11, 2022. Results presented in this table were adjusted using nonresponse weights.

3. Summary of family functioning outcomes

Adults' mental health and their attitudes about parenting improved significantly from project entry to exit. Adults reported significantly fewer symptoms of depression after enrolling in RPG4, moving from moderately depressed to mildly depressed, on average. Adults expressed significantly fewer attitudes about parenting that placed their children at risk of maltreatment.

E. Child safety and permanency

In authorizing RPG, Congress had a primary interest in supporting the safety (reduced maltreatment) and permanency (reunification or other permanent placement) of children who experienced, or were at risk of experiencing, maltreatment because of adult substance use issues. The cross-site evaluation used child welfare administrative data, obtained by grantees, to measure outcomes in the study domains of permanency and safety.

1. Safety

Maltreatment rates, based on both substantiated and unsubstantiated reports, for children enrolled in the RPG4 projects decreased by a statistically significant amount in the year following RPG4 entry, relative to the year before enrollment. The incidence of reported maltreatment decreased significantly, from 59 percent in the year before RPG4 enrollment to 20 percent in the one-year period following RPG4 enrollment among a sample of 587 focal children (Table VII.6). This change represents a 39-percentage-point decrease in rates of reported maltreatment from the year before project entry. Rates of reported neglect, abuse, and other treatment dropped significantly between these two periods as well.

Table VII.6. Change in the rates of reported maltreatment in the year before and the year after RPG4 enrollment

Variable	In year before RPG4 enrollment	In year after RPG4 enrollment	Change between years
Reports of any maltreatment (abuse, neglect, or other)[a]	59	20	-39*
Reports of maltreatment that were substantiated	34	8	-26*
Reports of maltreatment that were not substantiated	36	14	-22*
Reports of abuse	27	13	-14*
Reports of neglect	36	9	-27*
Reports of other maltreatment	20	5	-16*

[a] Includes reports that received alternative responses (for example, rather than initiating an investigation for every screened-in case, the child welfare agency might connect a family to services), reports where the report types were unknown, or reports for children who were not the subject of an allegation but in a household that received a CPS response because at least one child in the household was the subject of a CPS response.

Notes: Change scores might not exactly match the simple difference in the two time points because of rounding.

Safety data in this table include focal children in each case. Sample includes 587 children based on the 15 projects that submitted the data for the year before and the year after RPG4 enrollment.

* Statistically significant difference between time periods at the .05 level.

Source: Administrative records from state or county child welfare agencies for the year before and the year after RPG4 enrollment, obtained by grantees and submitted to the cross-site evaluation through March 11, 2022.

The magnitudes of reductions in substantiated reports of maltreatment and reports that were not substantiated in the year following RPG4 enrollment were about the same. Substantiated maltreatment rates, or claims that an incident of abuse or neglect as defined by state law is believed to have occurred (Child Welfare Information Gateway, 2013), decreased significantly, by 26 percentage points from the year before RPG4 enrollment to the intervention year. The rates of maltreatment reports that were not substantiated also decreased significantly, by 22 percentage points, as seen in Table VII.6.

Although the incidence of reported maltreatment decreased substantially among children in RPG4, some children were the subject of reports of maltreatment in the year following enrollment. Of the 346 children with maltreatment reports (substantiated or not substantiated) in

the year before enrollment, 90 (26 percent) were the subject of one or more subsequent reports of maltreatment in the year following enrollment.

2. Permanency

There were statistically significant reductions in removals from the home from the year before RPG4 enrollment and the intervention year. A total of 145 eligible focal children, or 25 percent, were removed from their home in the year before RPG4 enrollment (Table VII.7). This number decreased to 49 children, or 8 percent in the following year, a statistically significant decrease of 16 percentage points. If children who were removed before RPG enrollment and were still in out-of-home care after RPG4 enrollment were excluded from the analysis, the revised rate of removal following RPG4 entry is 8 percent, still markedly lower than the baseline rate of 25 percent.

Although this reduction in rates of removal was a marked improvement, 8 percent of children being removed from their homes was still higher than recent national averages. Fewer than 0.5 percent of children nationwide entered foster care in 2021 (HHS, 2022a). Therefore, even after enrollment, the children in RPG4 were still being removed from their homes at a high rate (albeit markedly less often than they were before enrollment). This continued high likelihood may be because children who enrolled in RPG4 came from a higher-risk population, as intended by the legislation establishing RPG, and the grantees and their partners.

A higher proportion of children were either reunified with their families or achieved permanency in another way in the year following RPG4 entry than in the year before enrollment. In the year before RPG4 enrollment, 145 children were removed from their homes, and 5 of them, or 3 percent, achieved permanency outcomes (reunification or guardianship) by the time they enrolled in RPG4 that same year. As noted, there were 49 children with removals in the year after RPG4 enrollment, and 9 of them, or 18 percent, achieved permanency during the year after enrollment, a statistically significant improvement of 15 percentage points. Similarly, the rate of children reunifying with families increased significantly, from 2 percent in the year before enrollment to 12 percent in the year after RPG enrollment.

Although the rates of achieving permanency were greater in the year following entry into RPG4 than in the year before, these positive outcomes following a removal from the home were still relatively rare. In the year following RPG4 enrollment, most children (82 percent of children removed during this period) had *not* achieved a permanent outcome (reunification, adoption, or guardianship).

Table VII.7. Change in the percentage of children in out-of-home placements in the year before and the year after RPG4 enrollment

Removal or placement	In the year before RPG4 enrollment		In the year after RPG4 enrollment		Change between years
	Sample size	Percentage	Sample size	Percentage	
Removed from home	587	25	587	8	-16*
Achieved permanency in a given year among children who were removed from home	145	3	49	18	15*
Reunified with family in a given year among children who were removed from home	145	2	49	12	10*

Note: Change scores might not exactly match the simple difference in the two time points because of rounding.
Permanency data in this table include focal children in each case. Sample sizes are based on the 15 projects that submitted the data for the year before and the year after RPG4 enrollment.
* Statistically significant difference between time periods at the .05 level.

Source: Administrative records in the year before and the year after RPG4 enrollment from state or county child welfare agencies, obtained by grantees and submitted to the cross-site evaluation through March 11, 2022.

3. Summary of child safety and permanency outcomes

Rates of substantiated maltreatment declined significantly after families enrolled in RPG4. More than one-third (34 percent) of children in RPG4 had an instance of substantiated maltreatment in the year before enrollment, and this decreased to 8 percent of children in the year after RPG4 enrollment. Data show that this reduction in maltreatment was attributable to: (1) removals of children from their homes and placement in safer environments, and (2) improvements among children who were never removed from their homes before or after RPG4 enrollment.

Removals from the home were less common in the year after RPG4 enrollment than in the year before. Twenty-five percent of enrolled children had been removed from their home in the year before RPG4 enrollment, and 8 percent of children were removed from their home in the year after entering RPG4. Reunifications with the family of origin or other permanent placements were also more common in the year after RPG4 entry than in the year before.

F. Child well-being

In addition to supporting the safety and permanency of children, the RPG4 projects also sought to improve their well-being. The experience of maltreatment can have long-lasting implications for children (Institute of Medicine & National Research Council, 2013). The cross-site evaluation measured children's emotional and behavior problems and sensory processing outcomes.

1. Emotional and behavioral problems

The emotional and behavioral problems of focal children in RPG4 did not improve significantly from project entry to exit. Table VII.8 shows that neither the mean scores nor the proportions of

children characterized as high risk changed significantly over time. All three scores (behavioral, emotional, and total) were above the national average score of 50 at project entry and exit. These results are based on a 24 percent response rate, or 132 children from 12 grantees that submitted the data.

Table VII.8. Change in child well-being from RPG4 project entry to project exit

Child well-being measure	Sample size	At project entry		At project exit		Change from project entry to exit	
		Mean score (SD)	Percentage in high-risk category	Mean score (SD)	Percentage in high-risk category	Change in mean score	Change in percentage in high-risk category
Emotional and behavioral problems (ages 1.5–18.0)							
Emotional problems	132	55.2 (10.6)	21	53.3 (11.8)	20	-2.0	-1
Behavioral problems	132	54.7 (11.6)	23	53.9 (11.2)	18	-0.8	-5
Total problems	132	55.0 (11.6)	23	53.6 (12.4)	23	-1.4	-0
Sensory processing (birth–36 months)	84	n.a.	12	n.a.	23	n.a.	11

Source: Administration of standardized instruments at project entry and project exit, including data submitted to the cross-site evaluation through March 11, 2022. Results presented in this table were adjusted using nonresponse weights.

Note: Emotional and behavioral problems were assessed using the Child Behavior Checklist (CBCL); sensory processing was assessed using the Infant-Toddler Sensory Profile (ITSP). Higher scores on the CBCL mean the child had more problems.

The cross-site evaluation collected data from one focal child in each case. Sample sizes are based on the 12 grantees that submitted the CBCL data and the 13 grantees that submitted the ITSP data. Sample sizes also varied by measure because caregivers reported on different subsets of children depending on the child's age. For example, the ITSP has a narrow age range (birth to 36 months), so a small number of children were analyzed for that measure.

n.a. = not applicable; SD = standard deviation.

2. Sensory processing

There was no significant change from project entry to project exit in the percentage of children with an atypical sensory processing assessment. Table VII.8 shows that at project exit, almost one-quarter (23 percent) of the youngest focal children (ages birth to 3) that grantees assessed as part of the cross-site evaluation were characterized as either being under-responsive to stimuli (for example, they did not register audio, visual, or tactile stimulation), or over-responsive to stimuli, compared with 12 percent at project entry. However, the difference was not statistically significant. This result is based on 84 children from 13 grantees that submitted the data, or a 17 percent response rate.

3. Summary of child well-being outcomes

There were no significant changes for child well-being outcomes from RPG4 project entry to project exit.

G. Limitations

Most outcomes for children and adults enrolled in RPG4 improved from project entry to exit, but there are three main limitations to keep in mind when reviewing these findings.

First, the analysis comparing outcomes from project entry to exit is a descriptive analysis assessing individual change over time. It cannot show whether the RPG4 projects, as a whole or individually, *caused* positive or negative changes. For example, people who entered RPG4 might have done so because they were ready to take action to improve their situations, and they might have improved even without enrolling in RPG4. Without an impact study that included comparable families not enrolled in RPG, it is not possible to conclude that the RPG4 program was responsible for the improvements in outcomes.

Second, as noted, a substantial proportion of the eligible sample did not have both baseline and follow-up data from standardized instruments measuring child well-being, adult substance use issues, and family functioning outcomes. Individuals included in the pre-post change analysis differed from those who did not have follow-up data on some demographic characteristics. (More information is in Appendix G.) However, the groups did not differ on baseline values of the outcomes.

The cross-site evaluation team applied nonresponse weights to the pre-post change analyses of standardized instrument data to reduce these differences and make the results more generalizable. However, adjustment by weighting does not fully ensure the sample's representativeness. There might be factors weights do not account for that were related to nonresponse but not measured in the cross-site evaluation. Although a variety of sensitivity analyses showed that the findings were largely consistent across several different defensible analytic approaches (including one that ignored the nonresponse weights), alternate approaches could have produced a different set of findings for this analysis, leading to substantively different interpretations.

Third, some outcomes—in particular, those measuring children's well-being—might not have been substantively affected when the family had just finished participating in the RPG4 project. As shown in the framework, this outcome domain is expected to be influenced at a more distal point in time than the proximal outcomes would be. That is, more time might be necessary for the improvements in adult recovery, family functioning, and safety and permanency to substantively improve child well-being outcomes. Assessing child well-being 6 to 12 months after project exit (the current outcomes were measured 6 to 12 months after project entry) might increase the likelihood of showing improvement.

VIII. INTERIM ENROLLMENT, BASELINE OUTCOME, AND SERVICE DATA ON RPG5 AND RPG6 PROJECTS

In addition to the RPG4 cohort of projects, HHS funded a 5th cohort of 10 RPG projects in 2018 and a 6th cohort of 8 RPG projects in 2019. RPG5 and RPG6 projects are more than halfway through their grant periods and continue to enroll and provide services to families. They also continue to report data on enrollment, services, and outcomes to the cross-site evaluation.[57] This chapter provides a brief look at the status of these projects, including the families enrolled and the services provided to them. The data here are interim data collected through November 12, 2021.[58] During that period, 17 of 18 projects submitted enrollment data, and 16 projects submitted services data. Section A describes the focal populations the projects served, and the characteristics of adults and children enrolled in the projects. Section B describes the cross-site evaluation outcome measures for participants at enrollment. Section C is an overview of the types of services that were provided to families and the focus of the services.

A. Characteristics of families enrolled in RPG5 and RPG6 projects

Staff at each project assessed the needs of their communities and defined their focal population to enroll into their programs. Table VIII.1 shows that all grantees focus on enrolling families that either have an active child welfare case or are at risk of being involved with the child welfare system. In addition, four projects aim to serve families that include a pregnant woman or parents of young children (ages five or younger).

Table VIII.1. Focal populations served by the RPG5 and RPG6 projects

State	Grantee	Eligibility characteristics		
		Pregnant women and parents of young children	Families with an active child welfare case	Families at risk of child welfare involvement
RPG5 projects				
Florida	Citrus Health Network dba Citrus Family Care Network		✓	
Florida	Family Support Services of North Florida	✓	✓	
Illinois	Centerstone of Illinois, Inc.		✓	
Iowa	Judiciary Courts for the State		✓	
Iowa	Northwest Iowa Mental Health Seasons Center		✓	✓
Massachusetts	Institute for Health and Recovery, Inc.		✓	
Missouri	Preferred Family Healthcare, Inc.		✓	

[57] RPG5 projects will submit their final data to the cross-site evaluation by September 2023. RPG6 projects will submit their final data by September 2024.

[58] RPG5 data collection began March 1, 2019. RPG6 data collection began as early as October 1, 2020. November 12, 2021, was the last day grantees uploaded outcomes data for the fall 2021 submission period, which is the last upload period with data included in this report.

State	Grantee	Eligibility characteristics		
		Pregnant women and parents of young children	Families with an active child welfare case	Families at risk of child welfare involvement
New York	Montefiore Medical Center	✓		✓
Pennsylvania	Health Federation of Philadelphia	✓	✓	✓
South Dakota	Volunteers of America, Dakotas		✓	✓
RPG6 projects				
Colorado	Colorado Judicial Department		✓	
Georgia	Georgia State University		✓	
Illinois	Youth Network Council		✓	
Missouri	Preferred Family Healthcare, Inc.		✓	
New Hampshire	Mary Hitchcock Memorial Hospital / Dartmouth-Hitchcock Medical Center		✓	✓
New Jersey	Acenda, Inc.		✓	✓
Oklahoma	Oklahoma Department of Mental Health and Substance Abuse Services	✓		✓
West Virginia	Prestera Center for Mental Health		✓	

Note: dba = doing business as.

Source: RPG grant applications, Semi-Annual Progress Reports.

The 17 projects with data enrolled 1,282 cases comprising 1,553 adults and 2,459 children, as Table VIII.2 shows. This included 171 children in utero when their mother enrolled in RPG. On average, projects were enrolling families that included 3 individuals (1 adult and 2 children per family), with family sizes ranging from 2 to 10 individuals.

Table VIII.2. Summary of families enrolled in RPG5 and RPG6 projects

	Counts, averages, and ranges
Families (number)	1,282
Individuals (number)	4,012
Average number of people in a family	3.1
Range in family size	2–10
Number of adults in a family	1,553
Number of children in a family	2,459
Children in utero at time of enrollment	171

Source: RPG-Evaluation Data System data, RPG5: March 1, 2019, through November 12, 2021; RPG6: October 1, 2020, through November 12, 2021.

1. Sociodemographic characteristics of adults

Most enrolled adult participants were women (79 percent) between the ages of 25 and 44 at enrollment (78 percent). More than half of the adults (58 percent) were White and non-Hispanic;

17 percent were Black or African American; and 12 percent were Hispanic or Latino, as Table VIII.3 shows.

Many of the adults enrolled in RPG projects had low educational attainment and faced economic challenges. One-quarter of adults did not have a high school diploma. Most adults did not have a college degree. However, 21 percent had some college experience, and about 40 percent of adults had a high school diploma or GED. About one-quarter of adults reported that they were looking for work or could not find work. Slightly more than 40 percent of adults were employed full-time, part-time, or were self-employed, and 37 percent of adults reported wages or salary as their largest source of income.

Table VIII.3. Characteristics of adults enrolled in RPG5 and RPG6 projects

Characteristic	Adults enrolled across RPG5 and RPG6 projects[a]	
	Percentage	n
Gender		
Male	20.8	323
Female	79.2	1230
Age		
Younger than 18	0.1	1
18 to 24	13.8	214
25 to 34	54.0	838
35 to 44	23.5	364
45 to 54	5.7	89
55 or older	3.0	46
Mean	32.6	1552
Race and ethnicity		
White, non-Hispanic	58.3	880
Black or African American, non-Hispanic	16.6	251
American Indian or Alaska Native, non-Hispanic	10.1	153
Asian, non-Hispanic	0.2	3
Native Hawaiian or Other Pacific Islander, non-Hispanic	0.0	0
More than one race, non-Hispanic	2.9	44
Hispanic or Latino (any race)	12.4	189
Primary language[b]		
English only	98.6	1516
Spanish only	1.2	19
Other	0.1	2
Highest education level		
8th grade or less	2.3	33
Some high school	23.4	330
High school diploma/GED	39.5	558
Some vocational/technical education	2.8	39
Vocational/technical diploma	1.9	27

Characteristic	Adults enrolled across RPG5 and RPG6 projects[a]	
	Percentage	n
Some college	20.8	293
Associate's degree	4.2	59
Bachelor's degree	4.1	58
Graduate-level schooling or degree	1.0	14
Employment status		
Full-time employment	25.1	370
Part-time employment	13.4	197
Self-employed	2.8	41
Not employed but looking for work	34.5	509
Not employed and not looking for work, or unable to work	24.2	357
Relationship/marital status		
Never married	62.4	947
Married	19.4	295
Divorced/widowed/separated	18.1	275
Largest income source		
Wages/salary	36.7	528
Public assistance (TANF, WIC, SNAP)	20.3	292
Retirement/pension/spousal survivor's benefits	0.8	11
Disability/SSI	6.8	98
Unemployment benefits	5.1	73
Child support	1.0	15
Support from other individuals	1.1	16
Child's benefits (SSI, survivor's benefits)	11.9	171
Other	0.8	12
None	15.5	223

[a] Seventeen of the 18 RPG5 and RPG6 projects provided enrollment data.

[b] "Other" languages reported were French and American Sign Language.

Note: TANF = Temporary Assistance for Needy Families; SNAP = Supplemental Nutrition Assistance Program; SSI = Supplemental Security Income; WIC = Special Supplemental Nutrition Program for Women, Infants, and Children.

For the enrollment data on adults, the total number of adults is 1,553. Missing data ranged from no adults (for gender) to 142 adults (for education level).

Source: RPG-Evaluation Data System data, RPG5: March 1, 2019, through November 12, 2021; RPG6: October 1, 2020, through November 12, 2021.

2. Sociodemographic characteristics of children

The children enrolled in RPG5 and RPG6 projects were more racially and ethnically diverse than the adults enrolled but faced the same kinds of economic challenges. As Table VIII.4 shows, about 45 percent of children were White and non-Hispanic; 21 percent were Black or African American; and 12 percent were Hispanic or Latino. There were more multiracial children

(11 percent) than adults (3 percent). In addition, most children were receiving Medicaid (86 percent), reflecting the economic challenges reported by the enrolled adults.

Most children lived in a private residence with a biological parent. At enrollment, almost all children primarily lived in a private residence (94 percent). Slightly more than half (52 percent) lived with one or both biological parents, and the rest of the children lived with another relative (28 percent) or a non-relative foster parent (19 percent). About 90 percent of children lived in a same residence for the past 30 days.

Table VIII.4. Characteristics of children enrolled in RPG5 and RPG6 projects

Characteristic	Children enrolled across RPG5 and RPG6 projects[a]	
	Percentage	Number
Gender		
Male	52.2	1194
Female	47.8	1094
Age		
Younger than 1	16.6	378
1 to 4	34.4	784
5 to 8	26.0	594
9 or older	23.0	525
Mean	5.2	2281
Race and ethnicity		
White, non-Hispanic	44.5	991
Black or African American, non-Hispanic	21.2	471
American Indian or Alaska Native, non-Hispanic	8.6	191
Asian, non-Hispanic	0.0	0
Native Hawaiian or Other Pacific Islander, non-Hispanic	0.0	0
More than one race, non-Hispanic	10.5	236
Hispanic or Latino (any race)	12.4	189
Primary language		
English only	98.6	2240
Spanish only	1.4	31
Other	0.0	0
Medicaid status		
Receiving Medicaid	85.6	1958
Not receiving Medicaid	4.9	112
Don’t know	9.5	218
Primary type of residence at enrollment		
Private residence	93.5	2139

Characteristic	Children enrolled across RPG5 and RPG6 projects[a]	
	Percentage	Number
Treatment facility	3.9	89
Correctional facility/prison	0.0	1
Homeless/shelter	1.7	38
Group home	0.7	15
Other	0.1	2
Don't know	0.2	4
Primary adults in household at enrollment		
Biological mother only	20.5	469
Biological father only	5.9	135
Both biological mother and father	13.3	304
Any biological parent and a relative/other adult	11.9	272
Other relative[b]	27.8	635
Non-relative foster parent only	19.3	441
Other	0.0	0
Don't know	1.4	32
Child lived in the same residence for the past 30 days		
Yes	90.0	2060
No	8.8	201
Don't know	1.2	27

[a] Seventeen of the 18 RPG5 and RPG6 projects provided enrollment data.

[b] "Other relative" includes foster parents who are relatives of the focal child.

Note: For the enrollment data on children, the total number of children is 2,288. Missing data ranged from no children (for gender) to 210 children (for race and ethnicity).

Source: RPG-Evaluation Data System data, RPG5: March 1, 2019, through November 12, 2021; RPG6: October 1, 2020, through November 12, 2021.

B. Safety, permanency, and family functioning of adults and children enrolled in RPG5 and RPG6

1. Adult recovery at or before enrollment

On average, the adults' levels of drug use at RPG5 and RPG6 enrollment were similar to those of individuals enrolled in substance use treatment settings nationally, but alcohol use was less prevalent.[59] A subset of the adults enrolled in RPG5 and RPG6 received services from a

[59] Grantees collect and submit recovery domain data on the adult in each RPG case who is at risk of developing a substance use issue (such as substance misuse or an SUD), has an active substance use issue, or is in recovery from a substance use issue. If no such adult is part of the case, then the data are obtained from the focal child's biological or adoptive parent or the adult who has a goal of reunification with the focal child.

publicly funded substance use treatment setting before enrolling in RPG.[60] In addition, many adults reported trauma symptoms at RPG5 and RPG6 project entry.

a. Adult substance use

Table VIII.5 shows that at the time of their enrollment, 29 percent of adults were considered to be in the high-severity use groups for drugs, alcohol, or both. Among adults in these groups, the substances with the highest use in the previous month were cannabis (61 percent), amphetamines (50 percent), and opioids (22 percent; results not shown). Drug use was more common than alcohol use. Table VIII.5 shows that the percentage of adults with high-severity drug use profiles that were classified as high severity (23 percent) was more than twice as large as the percentage of adults with high-severity alcohol use (10 percent). The average drug use score on the ASI-SR was similar to the average observed in a nationwide sample of individuals in substance use treatment (McLellan et al., 2006). However, the average score for alcohol use was lower than the national average.

Table VIII.5. Substance use in the 30 days before enrollment in RPG5 and RPG6

Baseline scale	RPG sample size[a]	RPG sample mean score (SD)	National sample mean score (SD)[b]	Percentage of RPG adults in high-severity category[c]
Drug use	1,020	0.08 (0.12)	0.10 (0.13)	23
Alcohol use	1,080	0.07 (0.14)	0.22 (0.25)	10
Any drug or alcohol use	1,021	n.a.	n.a.	29

[a] Sample sizes vary by measure because of item nonresponse.

[b] As reported in McLellan et al. (2006), which focused on a nationwide sample of individuals in treatment settings for substance use disorder. Higher scores on the ASI-SR scales represent higher severity ratings.

[c] High-severity drug or alcohol use was defined for the cross-site evaluation as a scale score on the ASI-SR for drug or alcohol use that was above the national mean. The calculated percentage of adults in the high-severity category was relative to the number with complete data for a given type of substance use.

Note: ASI-SR = Addiction Severity Index, Self-Report Form; n.a. = not applicable; RPG5 = Regional Partnership Grants, Cohort 5; RPG6 = Regional Partnership Grants, Cohort 6; SD = standard deviation.

About 86 percent of families that enrolled in RPG5 and RPG6 had an adult complete the ASI-SR (n = 1,280 in 16 grantees). The sample sizes ranged from 1,020 to 1,080 because of item nonresponse.

Source: Administration of the ASI-SR at RPG5 and RPG6 enrollment, including data submitted to the cross-site evaluation through November 12, 2021.

b. Participation in treatment

Completing treatment is a positive accomplishment that can aid in recovery from substance use issues. Seven of 18 grantees submitted recovery data. Of their enrolled adults, about 22 percent (647 adults) were in publicly funded substance use treatment in the year before they enrolled in RPG5 or RPG6. About 28 percent of them completed at least one treatment program in the year

[60] State laws require substance use treatment programs to report their publicly funded admissions to the state. Publicly funded treatment programs have traditionally relied on three funding streams: (1) federal substance abuse block grants; (2) Medicaid reimbursement; and (3) state general funds (SAMHSA, 2000).

before they enrolled in RPG. More of these adults may have completed treatment after they enrolled in RPG.

c. Trauma symptoms

Adults experienced some symptoms of trauma in the 2 months before RPG project enrollment, as assessed by the TSC-40 (not shown; results based on 14 grantees that submitted data). However, they reported fewer symptoms than a similar group in a previous study of adults enrolled in substance use treatment (Tracy et al., 2012). The average score of trauma symptoms reported by adults at RPG project enrollment was two-thirds of the average score in the earlier study of comparable adults.

2. Family functioning at enrollment into RPG5 and RPG6

Across the five parenting attitudes measured by the Adult Adolescent Parenting Inventory (AAPI-2), 13 percent to 33 percent of the adults enrolled at RPG expressed parenting attitudes indicative of a potential risk for maltreatment (not shown). The percentage of adults in the high-risk category was higher for adults at enrollment into RPG as compared to the national average in three categories: (1) lack of empathy for child (33 percent); (2) oppresses child's independence (31 percent); and (3) treats child like an adult peer, not a child (19 percent). On average, adults enrolled in RPG had more negative parenting attitudes compared with the national average for all five categories of parenting attitudes.

At enrollment, adults had a higher mean score for depressive symptoms (12.2) compared to a representative sample of parents of children (5.7) in Head Start in the 2014 cohort of FACES (Aikens et al., 2017). The percentage of RPG adults who had severe depressive symptoms was more than three times higher than the percentage reported in FACES (38 percent versus 11 percent).

3. Child safety and permanency at or before enrollment in RPG5 and RPG6

Table VIII.6 shows the overall involvement in the child welfare system for the 11 grantees (61 percent of the RPG5 and RPG6 cohorts) that reported the data. About half (46 percent) of the children who were enrolled in RPG5 and RPG6 were involved in the child welfare system the year before enrollment, including 22 percent of children who had been removed from their homes. In the year before enrollment, 25 percent of children had a child maltreatment report only (including reports that were substantiated and those that were not substantiated); 19 percent of children had a report and were removed from their home; and 3 percent of children were removed from their home (for these children, the maltreatment report occurred more than one year before enrollment into RPG).

Table VIII.6. Children with reports of child maltreatment and/or removals from home in the year before enrollment in RPG5 and RPG6

Category	Percentage of children
Not involved in the child welfare system[a]	54
Involved in the child welfare system	
Reports of maltreatment only (no removal)	25
Removal only	3
Subject of a maltreatment report and removed from the home	19

[a] The cross-site evaluation defines involvement in the child welfare system using language from the Child Welfare Information Gateway (2013), in which a report of suspected child abuse or neglect is described as how most families become involved in the local child welfare system.

Note: RPG5 = Regional Partnership Grants, Cohort 5; RPG6 = Regional Partnership Grants, Cohort 6. Statistics were based on 1,056 children in 11 projects that submitted both safety and permanency data.

Source: Administrative records from state or county child welfare agencies that the grantees obtained and submitted to the cross-site evaluation through November 12, 2021.

a. Maltreatment of children

Table VIII.7 shows that at the time of project entry, about 43 percent of children had at least one report of maltreatment in the previous year.[61] This prevalence of maltreatment was higher than the national incidence of maltreatment reports (2.9 percent) (HHS, 2023a). Nineteen percent of children had reports that were not substantiated, and 29 percent had substantiated reports.

According to data shown in Table VIII.7, neglect was the most commonly reported type of report (27 percent), and abuse was the least commonly reported type (12 percent). Reports of neglect were more often substantiated than not substantiated, whereas reports of abuse were nearly as likely to be either type.

Many children enrolled in RPG had reports in more than one of these three categories of maltreatment (abuse, neglect, or other maltreatment; results not shown). Among children with substantiated reports of maltreatment in the year before their families enrolled in RPG, 60 percent had one category of maltreatment reported; 37 percent had reports in two categories; and 3 percent had reports in all three categories.

[61] Because of rounding, this number is slightly different from the results in Table VIII.5 (equivalent to the sum of children who were the subject of reports of maltreatment only and children who were the subject of a maltreatment report and removed from the home).

Table VIII.7. Reports of maltreatment for children in the year before enrollment in RPG5 and RPG6

Type of maltreatment	Percentage of children with reports[d]	Number of children with reports	Number of families that had at least one child with reports
Reports of any maltreatment (abuse, neglect, or other)	43	456	504
Reports of maltreatment that were substantiated	29	309	355
Reports of maltreatment that were not substantiated	19	202	225
Reports of abuse[b]	12	127	159
Reports of abuse that were substantiated	7	75	88
Reports of abuse that were not substantiated	5	54	75
Reports of neglect[c]	27	285	340
Reports of neglect that were substantiated	21	226	271
Reports of neglect that were not substantiated	6	62	75
Reports of other maltreatment	22	237	243
Reports of other maltreatment that were substantiated	8	83	84
Reports of other maltreatment that were not substantiated	15	154	161

[a] This category includes reports that received alternative responses (for example, rather than initiating an investigation for every screened-in case, the child welfare agency might connect a family to services), reports where the report types were unknown, or reports for children who were not the subject of an allegation but in a household that received a CPS response for another child or children in the household.

[b] This category includes physical, sexual, psychological, and emotional abuse.

[c] Failure to provide needed, age-appropriate care; includes medical neglect.

[d] Children may have been the subject of more than one report of maltreatment; therefore, the same child could be included in more than one major row in this table.

Note: CPS = child protective services; RPG5 = Regional Partnership Grants, Cohort 5; RPG6 = Regional Partnership Grants, Cohort 6.

Safety data included all children in each case. Sample sizes were based on the subset of 11 grantees that submitted the data. The percentages were based on 1,056 children who had enrolled in these projects by November 12, 2021. Reports that were not substantiated included those that were unsubstantiated or had other or alternative responses.

Source: Administrative records from state or county child welfare agencies that the grantees obtained and submitted to the cross-site evaluation through November 12, 2021.

b. Out-of-home placements and permanency outcomes

Turning to Table VIII.8, about one in five children (20 percent) had been removed from their home in the year before RPG project enrollment.[62] On average, children had two out-of-home placements in the year before enrollment. Although most children had one placement in the year

[62] This number does not include children who were already living outside the home before the one-year period before enrollment. Some children were already living outside the home before that period. These children have placement dates during the year but no removal dates, which indicates that they were removed before the one-year period. In addition, some children may have been removed before the one-year period and not placed during the period.

before enrollment (56 percent), 15 percent of children had two placements, and 29 percent had three or more placements (results not shown). Five percent who had been removed from their home in the year before their families enrolled in RPG had achieved permanency (all through reunification) during the same period.

Table VIII.8. Out-of-home placements of children in the year before enrollment in RPG5 and RPG6

Out-of-home placement and permanency	Sample size	Mean (SD)	Percentage of children
Removed from home	1,056	n.a.	21
Number of placements[a]	224	2.4 (3.0)	n.a.
Achieved permanency[b]	224	n.a.	5[b]

[a] Among children who were removed from the home and placed at least once during the year before they enrolled in RPG5 or RPG6.

[b] Percentage of children who were removed from the home in the year before they enrolled in RPG5 or RPG6 and who achieved permanency during the period.

Note: n.a. = not applicable; RPG5 = Regional Partnership Grants, Cohort 5; RPG6 = Regional Partnership Grants, Cohort 6; SD = standard deviation.

The permanency data included all children in each case. Sample sizes were based on the subset of 11 projects that submitted the data elements. All children in the sample who achieved permanency did so by being reunified with their families. Projects did not seek to enroll adoptive families or families of children who had been placed in guardianship.

Source: Administrative records from state or county child welfare agencies that the grantees obtained and submitted to the cross-site evaluation through November 12, 2021.

4. Child well-being at enrollment in RPG5 and RPG6

On average, emotional and behavioral problems were more common among focal children at RPG project enrollment than they were in national samples, but sensory processing outcomes were similar.

a. Emotional and behavioral problems

As shown in Table VIII.9, children in RPG had more emotional, behavioral, and total problems compared with a national sample of children; total problems are a combination of emotional and behavioral problems and other problems. The mean scores on measures for emotional, behavioral, and total problems (53.0, 54.4, and 54.3, respectively) for focal children at RPG project entry were higher than the national mean of 50. The percentage of children who were categorized as being at high risk for these for emotional, behavioral, and total problems (25 percent, 28 percent, and 30 percent, respectively) were also higher than the 10 percent in the national sample.

b. Sensory processing

At the time of RPG entry, focal children scored similarly to a national sample of children on sensory processing. The percentage of focal children at RPG project entry who were in the high-

risk category for sensory processing (29 percent) was similar to the 32 percent in the national sample (Table VIII.9).

Table VIII.9. Child well-being at enrollment in RPG5 and RPG6

Measure of child well-being	RPG sample size[a]	RPG sample mean score (SD)	National sample mean score (SD)	Percentage of RPG children in high-risk category	Percentage of children in high-risk category in the national sample
Emotional, behavioral, and other problems					
Emotional problems	477	53.0 (13.3)	50 (10)	25	10
Behavioral problems	477	54.4 (13.9)	50 (10)	28	10
Total problems	477	54.3 (14.5)	50 (10)	30	10
Sensory processing[b]	249	n.a.	n.a.	29	32

[a] The sample sizes vary by measure because caregivers reported on different subsets of children depending on the child's age. For example, the Infant-Toddler Sensory Profile (ITSP) has a narrow age range (birth to 36 months), so only a small number of children were analyzed on that measure.

[b] The RPG5 and RPG6 sample and national sample mean and SD for sensory processing are not reported in the table because they are not easily interpreted. Scores with either low or high values indicate under-sensitivity or oversensitivity, both of which are problematic.

Note: n.a. = not applicable; RPG5 = Regional Partnership Grants, Cohort 5; RPG6 = Regional Partnership Grants, Cohort 6; SD = standard deviation.

The cross-site evaluation collected data from one focal child in each case. Sensory processing was assessed using the ITSP. Emotional and behavioral problems were assessed using the Child Behavior Checklist (CBCL). Higher scores on the CBCL represent more problems. Thirteen projects submitted the ITSP data, and 14 projects submitted the CBCL data.

Source: Administration of standardized instruments at RPG5 and RPG6 enrollment, including data submitted to the cross-site evaluation through November 12, 2021.

C. Services received by families enrolled in RPG5 and RPG6 projects

Nearly all enrolled families participated in services. Ninety-four percent of enrolled families attended at least 1 service encounter, and 90 percent attended more than 1 encounter. More than 1,200 families attended 36,000 service encounters.

Eighty-five percent of services encounters were primary services, which deliver the main content of the RPG project to families. Primary services include case management or service coordination, mentoring, parenting training or home visiting programs, support groups or workshops, and therapy or counseling. Of the families that participated in services, 97 percent received primary services. The other services were supportive, ancillary services that complement the primary services, such as child care, financial or material supports, housing, screening or assessment, and transportation. Fifteen percent of service encounters were supportive services, and 73 percent of families received these services (among those who participated in services).

Case management or service coordination and therapy or counseling are the two most common services across RPG5 and RPG6 projects. Fourteen of 16 projects that reported service data provided case management services, and 12 projects provided therapy or counseling services. As Table VIII.10 shows, these service types represent more than half of all service encounters: therapy or counseling represent 35 percent, and case management or service coordination represent 24 percent. Most families participated in at least 1 of these services: 70 percent of families participated in case management services, and 65 percent of families participated in therapy or counseling. Although case management services are common across RPG5 and RPG6 projects, they were rarely offered as a stand-alone service. Of the projects that provided case management services, all but one also provided at least one other primary service.

Table VIII.10. Number of primary and supportive service encounters and percentage of families receiving services, by service type

Service type	Number of projects reporting service[a]	Number of service encounters	Percentage of service encounters	Percentage of participating families who received service[b]
Primary services	16	30,705	85	97
Case management or service coordination	14	8,815	24	70
Mentoring	9	2,065	6	24
Parenting training or home visiting program	9	3,065	8	34
Support group or workshop	4	4,193	12	31
Therapy or counseling	12	12,567	35	65
Supportive services	14	5,397	15	73
Child care	1	94	<1	2
Court or legal	2	179	<1	4
Employment training	3	17	<1	1
Financial or material supports	4	621	2	15
Housing[c]	3	n.a.	n.a.	24
Medical care or appointment	4	999	3	17
Medication for opioid use disorder	2	28	<1	1
Screening or assessment[d]	12	809	2	34
Transportation	7	2,650	7	20

[a] Sixteen of the 18 RPG5 and RPG6 projects reported service data.

[b] Of the 1,205 families that participated in services.

[c] Housing includes providing a residence to families, including residential treatment facilities and supportive housing. These services are typically provided for the duration of a family's enrollment in RPG services. Because families are in housing every day for that time, projects only reported a service encounter for each family's first and last day in housing.

[d] Each RPG project offering screening or assessment services identified the specific tools that best served their needs, which included drug or alcohol screenings, needs assessments, and developmental screenings.

Note: Service types are mutually exclusive. n.a. = not applicable.

Source: RPG-Evaluation Data System data, March 1, 2019, through November 12, 2021.

In addition to primary services, 14 projects provided supportive services to families, with most projects offering screening or assessment (12 projects) and transportation (7 projects) services. The specific type of supportive services varies across projects and families. For example, transportation accounts for nearly half (49 percent) of supportive services, but only 20 percent of families received this service.

Attendees. Projects direct services mostly toward adults alone. Adults attended most service encounters without children (89 percent), particularly for case management, mentoring, support group or workshop, and therapy or counseling services. Adults and children attended 9 percent of service encounters together, most often supportive services and parenting training or home visiting programs. Children attended very few service encounters without an adult (1 percent).

Service focus (Box VIII.1). Across all service types, service encounters commonly focused on substance use (42 percent), life skills (39 percent), mental health (29 percent), and parenting (24 percent), as shown in Table VIII.11. Most families attended services focused on every topic, but none of the topics were delivered at a high intensity. For example, 82 percent of families attended a service encounter focused on parenting, but only 24 percent of service encounters included parenting as a service focus. Similarly, 81 percent of families attended a service encounter focused on life skills, but only 39 percent of service encounters focused on life skills.

Box VIII.1. Service focus

Service focus refers to the content of the service encounter, with 29 possible topics. Service providers select all topics covered in each encounter. The cross-site evaluation groups these topics into eight categories: assessment, financial and material supports, health, life skills, mental health, parenting, substance use, and other topics, including referrals. ◢

Table VIII.11. Number of service encounters and percentage of families receiving services, by service focus area

Service focus area	Number of service encounters with service focus	Percentage of service encounters with service focus	Proportion of families receiving service focus[a]
Assessment	3,520	10	68
Financial and material supports	6,010	17	58
Health	2,159	6	49
Life skills	14,256	39	81
Mental health	10,579	29	70
Parenting	8,627	24	82
Substance use	15,112	42	71
Other focus[b]	4,922	14	69

[a] Of the 1,205 families that participated in services.

[b] Other service focus areas include dealing with a family crisis, court or legal, and referrals.

Note: Each service encounter can have more than one focus area.

Source: RPG-Evaluation Data System data, March 1, 2019, through November 12, 2021.

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Appendix A:

Previous Reports to Congress about RPGs

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Table A.1. Previous reports to Congress about RPG cohorts

RPG cohort	Report title	Year submitted to Congress
RPG1	Targeted grants to increase the well-being of and to improve the permanency outcomes for children affected by methamphetamine or other substance abuse: First Annual Report to Congress[a]	2012
RPG1	Targeted grants to increase the well-being of and to improve the permanency outcomes for children affected by methamphetamine or other substance abuse: Second Annual Report to Congress[a]	2013
RPG1	Targeted grants to increase the well-being of and to improve the permanency outcomes for children affected by methamphetamine or other substance abuse: Third Annual Report to Congress[a]	2014
RPG1	Targeted grants to increase the well-being of and to improve the permanency outcomes for children affected by methamphetamine or other substance abuse: Fourth Annual Report to Congress[a]	2017
RPG2	2012 Regional Partnership Grants to increase the well-being of and to improve the permanency outcomes for children affected by substance abuse: First Annual Report to Congress	2014
RPG2	2012 Regional Partnership Grants to increase the well-being of and to improve the permanency outcomes for children affected by substance abuse: Second Annual Report to Congress	2015
RPG2, RPG3	2012 and 2014 Regional Partnership Grants to increase the well-being of and to improve the permanency outcomes for children affected by substance abuse: Third Annual Report to Congress	2016
RPG2, RPG3	2012 and 2014 Regional Partnership Grants to increase the well-being of and to improve the permanency outcomes for children affected by substance abuse: Fourth Annual Report to Congress	2019
RPG2	2012 Regional Partnership Grants to increase the well-being of and to improve the permanency outcomes for children affected by substance abuse: Fifth Annual Report to Congress	2020
RPG3, RPG4	2014 and 2017 Regional Partnership Grants to increase the well-being of and to improve the permanency outcomes for children affected by substance abuse: Sixth Report to Congress	2021
RPG4, RPG5, RPG6	Regional Partnership Grants to increase the well-being of and to improve the permanency outcomes for children affected by substance abuse: Seventh Report to Congress	2023

[a] A separate contractor prepared the reports to Congress for RPG1, which concluded before the cross-site evaluation began with RPG2.

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Appendix B:

Data Sources

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Projects submit some data to the cross-site evaluation contractor, and the contractor collects additional data from grantee agencies and their partners. The time frame covered by the data varies by their source and the RPG cohort. This appendix describes the data sources and the time frames used in this report.

1. Data that grantees submit for the cross-site evaluation

Grantee agencies, their partners, or local evaluation contractors provide several types of data used by the cross-site evaluation and discussed in this report:

- **Semi-Annual Progress Reports (SAPRs).** HHS requires grantees to submit written progress reports twice a year. The SAPRs describe the partner agencies and their activities, project implementation, and successes and challenges experienced by the projects during each six-month reporting period.
- **Enrollment and services.** Grantees or their partner agencies enter data on the people they have enrolled and the services those people receive into a federally approved, secure data collection system built for the cross-site evaluation.[63] The system is known as the RPG Evaluation Data System (RPG-EDS).
- **Outcomes from standardized instruments and administrative data.** Grantees and their evaluators also upload to RPG-EDS data on family and child outcome measures. Projects collect outcome data by administering standardized data collection instruments to adults in families enrolled in the RPG cross-site evaluation at enrollment (baseline) and project exit (follow-up). They also request administrative data on enrolled children or adults from the relevant child welfare and substance use treatment agencies in their states. For the cross-site evaluation, HHS asked grantees to collect administrative data across the enrolled adults' and children's lifetimes, but some grantees only collect data for the year before enrollment in RPG through project exit.

2. Data obtained by the cross-site evaluation contractor

The cross-site evaluation team collects additional data to enable closer examination of how the partnerships function and implement their RPG projects. First, the cross-site evaluation team reviews the RPG grant applications and implementation plans, along with project summaries that the partnerships develop during the first year of each grant. These documents were available for all three cohorts. In addition, the team conducts a survey and site visits:

- **Partnership survey.** The team administers a partnership survey to a representative from the grantee and from each partner organization identified by the grantee. The survey asks for background on the partner agency, its role in RPG, its goals for the project, and its communications and coordination with other agencies in the partnership. The survey is administered once during the grant period. The cross-site evaluation team uses statistical methods to analyze the resulting data.

[63] The Office of the Chief Information Officer at HHS granted the system a conditional Authority to Operate (ATO) in 2019, and a full ATO in 2020.

- **Site visits.** To better understand partnerships between child welfare and substance use treatment agencies, the team conducts site visits to each project once during the grant period. Using protocols approved by Office of Management and Budget to guide their discussions, team members meet one-on-one or in groups with leaders and staff members from the grantee agency and partner agencies. The team members talk with representatives from child welfare and substance use treatment agencies, including directors, managers, administrators, supervisors, and direct service staff. The team conducts qualitative analyses of the field notes and summaries from the visits. Because of the COVID-19 pandemic, the site visits were virtual for RPG4 and RPG5.

HHS had intended for the cross-site evaluation to include the results from an improvement and sustainability survey about strategies for sustaining the collaboration after RPG ends and to learn whether funding or other resources will be available to support continuation of services after that time. However, this could not be administered to the RPG4 and RPG5 cohorts because of delays in obtaining approval for the security of the survey system. The survey may be administered to members of the RPG6 cohort in the future.

3. Time frame and grantees' data contributions by data source

As shown in Table B.1, the timespan that the data cover differs by cohort and data source. For RPG4, data cover a period of about three years, from March 2019 through March 2022, for most data sources.[64] For RPG5 and RPG6 projects, some data extend through November 2021, whereas other data sources go through April 2022.

Most grantees contributed the expected data to the cross-site evaluation. Because the RPG6 cohort members are earlier in their grant cycle, they had participated in fewer data activities as of 2022.

[64] Although the period of performance for RPG4 began in September 2017, data collection for the cross-site evaluation did not begin until March 2019. The grantees had a six-month planning period, and the cross-site evaluation team had to finalize the evaluation design, develop a system for grantees to use to collect data, and secure necessary approvals from HHS for collecting data and using the data system.

Table B.1. Number of grantees providing data, by source and cohort

Data source	Number of grantees (Time covered by data)		
	RPG4	RPG5	RPG6
Total number of grantees	17	10	8
Data collected by grantees			
Semi-Annual Progress Reports	17 (October 2017–March 2022)	10 (October 2018–March 2022)	8 (October 2018–March 2022)
Enrollment data	17 (March 2019–March 2022)	10 (March 2019 – November 2021)	7 (October 2020–November 2021)
Service data	15 (March 2019–March 2022)	10 (March 2019–November 2021)	6 (October 2020–November 2021)
Standardized instruments	17 (March 2019–March 2022)	10 (March 2019–November 2021)	6 (October 2020–November 2021)
Administrative data: Child welfare	16[a] (Enrolled child's lifetime, or one year before enrollment in RPG to project exit)	9 (Enrolled child's lifetime, or one year before enrollment in RPG to project exit)	2 (Enrolled child's lifetime, or one year before enrollment in RPG to project exit)
Administrative data: Substance use treatment	8 (Enrolled adult's lifetime, or one year before enrollment in RPG to project exit)	5 (Enrolled adult's lifetime, or one year before enrollment in RPG to project exit)	2 (Enrolled adult's lifetime, or one year before enrollment in RPG to project exit)
Data collected by cross-site evaluation contractor			
Site visits	16 (Conducted summer/fall 2021)	10 (Conducted summer/fall 2021)	n.a.
Partnership survey	16 (Administered summer/fall 2021)	10 (Administered summer/fall 2021)	n.a.

[a] One grantee that enrolled pregnant women collected data after the child's birth, but did not collect any data before the women enrolled in the RPG project.

Note: n.a. = not applicable.

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Appendix C:

Technical Details of the Latent Class Analysis

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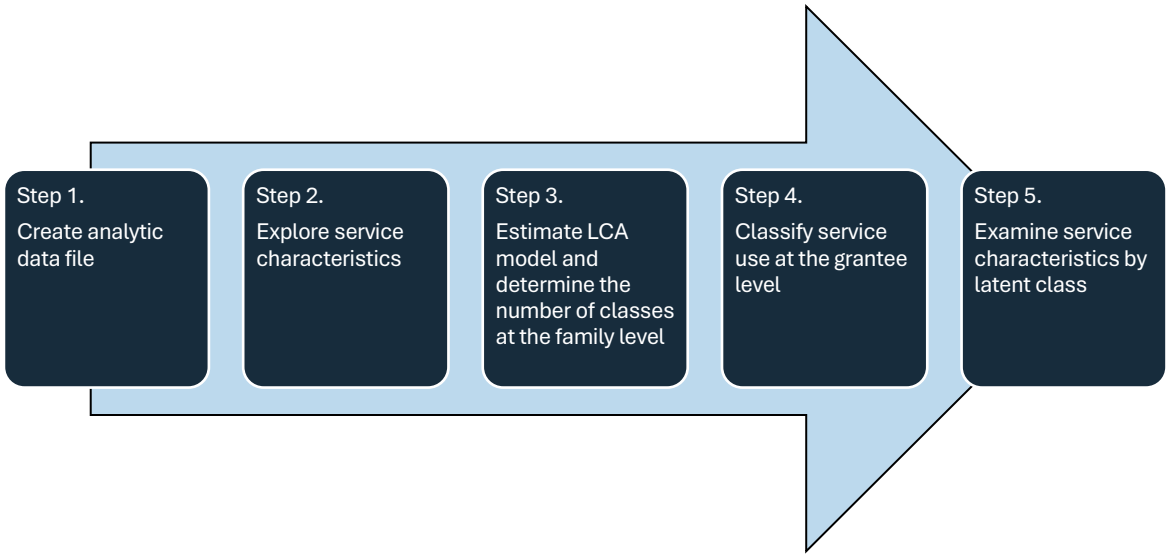
Latent class analysis (LCA) is an analytic method that identifies and categorizes clusters (classes) of similar cases for data that are observed as a series of categorical response values (Linzer and Lewis, 2011; Box C.1 defines key concepts). The goal of LCA is to examine patterns in the observed variables to determine whether a given data set contains only one population or several populations. In this sense, LCA is similar to cluster analysis, in which observations (for example, individuals, families, grantees, and so on) are grouped into latent classes based on underlying similarities. LCA assumes that the latent classes that are uncovered from the observed data are mutually exclusive and exhaustive.

Box C.1. Key definitions of LCA

- **Categorical variable**. A variable that has a limited and fixed number of possible values. Service location is one example (such as participant's place of residence, residential treatment facility, other location, or phone). A categorical variable that takes on values 0 and 1 is called a **binary variable**.
- **Observed variable**. A variable that is measured directly in the data. Observed variables may or may not be categorical.
- **Latent variable**. An unobserved variable that is inferred based on observed data. For example, an individual's personality (unobserved) is a latent variable that can be derived from items (observed) on a personality scale survey. ◢

The cross-site evaluation team conducted LCA to examine patterns of service delivery among RPG4 projects and to group projects that provided similar services to enrolled families. The approach for using LCA in the service analysis involved five steps, as illustrated in Figure C.1 and described below.

Figure C.1. Steps for using LCA to analyze services data



A. Step 1. Create an analytic data file

First, the cross-site evaluation team created an analytic data file that included the variables of interest and aggregated those variables to the family level, because grantees typically designed services to serve the family as a unit. The analytic sample in the LCA model included 15 of the

17 RPG4 grantees[65] with families that had received at least one of the primary service types (that is, case management or service coordination, parenting training or home visiting program, therapy or counseling, support group or workshop, or mentoring). Any families that did not meet this criterion were excluded from the analysis.

B. Step 2. Explore service characteristics

The second step explored various characteristics of service provision to identify patterns or trends of participants' service use. The preliminary LCA models examined a host of service characteristics such as the service type, duration, location, delivery approach, and attendees.[66] During this exploratory phase, the team considered numerous models to identify which variables to include in the LCA model and to understand the relationship between the variables and the latent classes. The team conducted analyses using Stata (StataCorp, 2017) and Mplus (Muthén & Muthén, 1998–2017).

Table C.1 highlights four models (three preliminary models and one final model) worth noting and the service characteristic variables that were included in the models. This table shows the progression of analytic decisions that the team made to include and exclude variables based on the descriptive statistics and variation in the data by latent class. A description of each model follows:

Table C.1. Indicators included in the LCA models and the number of latent classes

Indicator	Model 1	Model 2	Model 3	Final model
Service duration, 0 to 6 months	X			
Service duration, 6 months or more	X			
Case management or service coordination	X	X	X	X
Support group or workshop	X	X	X	X
Therapy or counseling	X	X	X	X
Parenting training or home visiting program	X	X	X	X
Mentoring	X	X	X	X
Peers provide service	X	X	X	X
Service location is in a residential treatment facility	X	X		
Serves multiple families	X	X		
Child attends the service	X	X		
Number of latent classes in the model	4	3	5	3

[65] Two grantees were excluded from the analysis because they did not provide services data.

[66] The following variables were included in one or more LCA models as part of the services analyses: pregnant woman in the family; duration of services (zero to six months, more than six months); primary service types; service provider (peers, partners); service occurring in a residential treatment facility; service delivered to multiple families together; family received at least one referral; and a child attended the service.

- **Model 1** included relevant service characteristics that could potentially distinguish the service receipt of different groups of families. The team selected these variables based on its knowledge of the grantees' intended project services and the characteristics that might distinguish groups.
- **Models 2 and 3** each included a refined list of service characteristics based on interpretation of fit statistics (described in detail in Step 3).
- **Model 4** is the final LCA model. It included the same indicators as Model 3 but estimated a three-class model, whereas Model 3 estimated a five-class model.

C. Step 3. Estimate LCA model and determine the number of classes at the family level

This step included refining the LCA model using a series of fit statistics, which are measures of how closely the actual data match the predicted values of the data based on the statistical model. These fit statistics helped determine the number of latent classes in the model. The team selected an upper limit of eight classes, and the resulting models included one to eight latent classes. The team chose an upper limit of eight latent classes based on the number of variables included in the model and the need to keep the number of classes manageable and interpretable. Examining a large range of classes provided a good starting point to see how the fit statistics changed for each model iteration, which enabled the team to refine the model.

1. Estimate the latent class models

The team considered the following key concepts in estimating an LCA model: parsimony, model fit, and interpretability.

- **Parsimony.** A parsimonious model explains the data with the minimum number of classes and still achieves a good fit. It is important to employ the parsimony principle to select the model with the fewest number of classes that is statistically and substantively meaningful (Masyn, 2013).
- **Model fit.** Evaluating model fit included examining the relative fit and classification diagnostics.
  - **Examining the relative fit** involved comparing the model's representation of the data to another model's representation using the following two criteria: inferential and information criteria.
  - **Inferential criteria.** This LCA analysis used inferential tests to compare nested models. These tests include the Lo-Mendell-Rubin Adjusted Likelihood Ratio Test (LMR-LRT) and the Bootstrap Likelihood Ratio Test (BLRT). These tests compare neighboring class models (that is, the null model to the more parsimonious model). A statistically significant *p*-value suggests the higher-class model fits the data significantly better than the model with one less class (Masyn, 2013; Nylund et al., 2007). In this LCA, the LMR-LRT and the BLRT helped reveal which models should not be selected. These inferential criteria suggested that larger class models fit the data better than smaller-class models. However, based on the information criteria, smaller-class

models were preferred to larger-class models. Applying the parsimony principle resulted in selecting a model with fewer classes that still obtains a good fit.

- **Information criteria**. This analysis relied on the most commonly used information criteria, which is the Bayesian Information Criterion (BIC). When evaluating information criteria, the best-fitting model has the lowest-value relative fit to the model (Nylund et al., 2007). In addition to the value of the BIC, the evaluation contractor examined the diminishing gains in model fit (Masyn, 2013). Specifically, the contractor calculated the change and difference in change in the BIC from one model to the next neighboring model to assess the largest drop in BIC value. Small changes in the BIC between two adjacent models indicate diminishing benefit for selecting higher-class (that is, more complex) models. Conversely, large changes in the BIC suggest that higher-class models may still provide sufficient information gain to justify their additional complexity. The evaluation contractor selected the number of classes that had the largest difference in change in BIC.
- **Classification diagnostics** assessed the degree of class separation. The classification diagnostic that was used in this analysis was relative entropy. Relative entropy is an index that examines the accuracy of classification for the entire sample across the latent classes and is bounded between zero and one, where higher values of entropy indicate better classification of observations into latent classes (Clark & Muthén, 2009). In standard practice, entropy values that are 0.80 or higher are considered high (Ram & Grimm, 2009). In this LCA, entropy was used as a guide after examining the information and inferential criteria.

- **Interpretability.** Once the relative fit and classification diagnostics were satisfied, the evaluation contractor prioritized models that were easy to interpret. The pattern of item-response probabilities (as described in Box C.2) were reviewed for high homogeneity and class separation. Homogeneity is the extent to which individuals within a latent class are likely to provide the same observed responses (Collins & Lanza, 2010). Homogeneity is considered high if the class-specific item-response probabilities are greater than 0.70 or less than 0.30 (Masyn, 2013). Class separation is the extent to which the overall pattern of the item-response probabilities clearly distinguishes the latent classes (Collins & Lanza, 2010). Theory and background knowledge of the service delivery also provided context in interpreting the latent classes.

Box C.2. Item-response probability

Item-response probability is the probability that a family had a specific value for an observed categorical variable. (The expression for having a specific value is "endorsed an observed item.") This probability is produced for each family and each observed categorical variable, with values ranging from 0 to 1. Values closer to 0 indicate a family is not likely to endorse the item; values closer to 1 indicate a family is likely to endorse the item. Item-response probabilities were used to form the basis for interpreting latent classes. These probabilities can be used to compare classes to assess the distinctness (or uniqueness) of each class. ◢

2. Determine the number of latent classes

Table C.2 provides the fit statistics for Model 1 for up to five latent classes. In this model, the inferential criteria (LMRT and BLRT) and BIC do not point to a specific solution. The difference in change in BIC indicates a four-class model is the preferred model.

Table C.2. Fit statistics for Model 1

Number of latent classes	Log likelihood	BIC	Change in BIC	Difference in change in BIC	*p*-value of BLRT	*p*-value of LMRT	Entropy
1	-15477.90	31040.63			-	-	-
2	-14307.04	28791.45	-2249.18		0.000	0.000	0.99
3	-13267.71	26805.33	-1986.12	263.06	0.000	0.000	0.95
4	-12933.15	26228.76	-576.57	**1409.55**	0.000	0.000	0.99
5	-12667.43	25789.86	-438.90	137.67	0.000	0.000	0.96

Note: BIC = Bayesian Information Criterion; BLRT = Bootstrap Likelihood Ratio Test; LMRT = Lo-Mendell-Rubin Adjusted Likelihood Ratio Test.

Bolded values indicate the preferred model given the fit index.

In each model, when determining which characteristics to retain, the team retained the five primary service types as a group, despite individual fit statistics, because of the importance of the kinds of services RPG projects provided to families. In addition, the team eliminated one characteristic at a time to observe changes in the item-response probabilities. Not every iteration of the model is presented in this appendix, however.

When considering which indicators to retain in Model 2, the team evaluated the item-response probabilities from the four-class model in Table C.3. For Model 2, the team eliminated service duration from the model based on the magnitude of the probabilities in most classes, as these characteristics together did not seem to meaningfully distinguish the classes.

Table C.4 shows the fit statistics for Model 2 for up to seven classes. Like Model 1, the BIC never reached a minimum value, though the difference in change in BIC suggests a three-class model. The *p*-value for the LMRT suggests a six-class model fits better than a seven-class model, but the parsimony principle supports the three-class model over the six-class model.

Table C.3. Model 1 item-response probabilities and percentage of families in each class

Indicator	Class 1	Class 2	Class 3	Class 4
Service duration, 0 to 6 months	0.61	**0.75**	**0.00**	**0.83**
Service duration, 6 months or more	**0.27**	**0.00**	**1.00**	**0.00**
Case management or service coordination	0.65	0.58	**0.82**	0.43
Support group or workshop	0.91	**0.05**	**0.07**	**0.13**
Therapy or counseling	1.00	0.40	0.48	**0.27**
Parenting training or home visiting program	0.97	0.25	0.22	**0.17**
Mentoring	0.00	0.52	0.41	**0.00**
Service location is in a residential treatment facility	1.00	**0.12**	0.22	**0.11**
Serves multiple families	1.00	0.39	0.34	0.28
Child attends the service	0.57	0.25	0.55	0.41
Peers provide service	**0.00**	**1.00**	0.59	**0.00**
Percentage of families in each class	13%	20%	30%	37%

Note: The analysis includes families that received at least one of the primary services.
Bolded values indicated an item-response probability that is greater than 0.70 or less than 0.30.

Source: RPG-Evaluation Data System data, March 1, 2019, through March 11, 2022.

Table C.4. Model 2 fit statistics

Number of latent classes	Log likelihood	BIC	Change in BIC	Difference in change in BIC	*p*-value of BLRT	*p*-value of LMRT	Entropy
1	-12505.87	25081.14			-	-	-
2	-11341.63	22829.79	-2251.35		0.000	0.0000	0.99
3	-10691.38	21606.40	-1223.39	**1027.96**	0.000	0.0000	0.99
4	-10410.00	21120.77	-485.63	737.77	0.000	0.0000	0.94
5	-10187.37	20752.63	-368.15	117.48	0.000	0.0000	0.96
6	-9953.85	20362.71	-389.92	-21.77	0.000	**0.0000**	0.93
7	-9829.25	20190.63	-172.08	217.84	0.000	0.1298	0.91

Note: BIC = Bayesian Information Criterion; BLRT = Bootstrap Likelihood Ratio Test; LMRT = Lo-Mendell-Rubin Adjusted Likelihood Ratio Test.
Bolded values indicate the preferred model given the fit index.

Table C.5 shows the item-response probabilities for the three-class model for Model 2. Between Models 2 and 3, based on the strength of associations, the team eliminated indicators related to how services were provided, with one exception. Whether a service provider was a peer was retained because of its association with the mentoring service type. When removed, the probability for mentoring weakened substantially.

Table C.5. Model 2 item-response probabilities and percentage of families in each class

Indicator	Class 1	Class 2	Class 3
Case management or service coordination	0.35	0.48	**0.18**
Support group or workshop	**0.09**	**0.89**	**0.97**
Therapy or counseling	**0.00**	0.62	0.65
Parenting training or home visiting program	**0.02**	0.80	0.79
Mentoring	**1.00**	**1.00**	0.00
Service location is in a residential treatment facility	**0.00**	**0.89**	0.73
Serves multiple families together	**0.00**	0.69	0.61
Child attends the service	0.42	0.57	0.62
Peers provide service	**1.00**	0.76	**0.01**
Percentage of families in each class	13%	64%	23%

Note: The analysis includes families that received at least one of the primary services.
Bolded values indicated an item-response probability that is greater than 0.70 or less than 0.30.

Source: RPG-Evaluation Data System data, March 1, 2019, through March 11, 2022.

Table C.6 shows the fit statistics for Models 3 and 4, which suggest that a three-, five-, or seven-class model are all plausible choices. The BIC reached a minimum value at five classes (Model 3), but the difference in change in BIC points to a three-class model (Model 4). The statistically insignificant *p*-values for the BLRT and LMRT suggest a seven-class model over an eight-class model. Based on the parsimony principle, the evaluation contractor did not consider a seven-class model, but did evaluate the five- and three-class models. Model 3 explored the five-class model solution, with the item-response probabilities described in Table C.7.

Table C.6. Model 3 fit statistics

Number of latent classes	Log likelihood	BIC	Change in BIC	Difference in change in BIC	*p*-value of BLRT	*p*-value of LMRT	Entropy
1	-3228.15	6497.36			-	-	-
2	-2815.42	5719.80	-777.56		0.000	0.000	0.94
3	-2676.19	5489.26	-230.54	**547.02**	0.000	0.000	0.98
4	-2596.03	5376.85	-112.42	118.13	0.000	0.000	0.92
5	-2555.49	**5343.67**	-33.17	79.24	0.000	0.000	0.98
6	-2535.65	5351.89	8.22	41.39	0.000	0.000	0.98
7	-2524.87	5378.25	26.36	18.14	**0.000**	**0.000**	0.98
8	-2517.17	5446.61	68.36	42.00	1.000	0.953	0.94

Note: BIC = Bayesian Information Criterion; BLRT = Bootstrap Likelihood Ratio Test; LMRT = Lo-Mendell-Rubin Adjusted Likelihood Ratio Test.
Bolded values indicate the preferred model given the fit index.

The item-response probabilities for the five-class model for Model 3 in Table C.7 indicate high homogeneity among each of the six indicators. However, multiple indicators have high item-response probabilities in multiple classes. This suggests that the classes were not distinct from

one another. Furthermore, when the team examined the proportion of families in each class, there was a small proportion of families in two of the classes (4 percent of families in Class 1 and 5 percent of families in Class 3). Given the importance of keeping the five primary services in the model and acknowledging the important role peers play in recovery from substance misuse (Tracy and Wallace 2016), the team retained these indicators and refined the number of latent classes.

Table C.7. Model 3 item-response probabilities and percentage of families in each class

Indicator	Class 1	Class 2	Class 3	Class 4	Class 5
Case management or service coordination	**1.00**	**0.98**	**0.00**	**0.91**	**0.00**
Support group or workshop	**0.92**	**0.01**	0.31	**0.00**	**0.00**
Therapy or counseling	**1.00**	0.45	**0.91**	**0.73**	**0.00**
Parenting training or home visiting program	**0.97**	0.31	**0.14**	0.29	**1.00**
Mentoring	**0.08**	**0.86**	0.48	**0.00**	**0.00**
Peers provide service	**1.00**	**1.00**	**1.00**	**0.00**	**0.03**
Percentage of families in each class	4%	44%	5%	36%	11%

Note: The analysis includes families that received at least one of the primary services.
Bolded values indicated an item-response probability that is greater than 0.70 or less than 0.30.

Source: RPG-Evaluation Data System data, March 1, 2019, through March 11, 2022.

The item-response probabilities of the three-class model are presented in Table C.8 for the final model, Model 4. These probabilities reveal specific services for each latent class and can help identify the meaning of the classes. Looking across the classes, certain indicators stand out as defining elements of only one class. For example, parenting training and home visiting have a strong association with Class 3, whereas peers as service providers were strongly associated with Class 1 (both have a value of 1). For each of those classes, these indicators define the types of services grantees in that class provide: Class 3 is focused almost exclusively on parenting training and home visiting services, whereas Class 1 is centered on a variety of service types, some of which were provided by peer mentors. One service type, case management or service coordination, was strongly associated with Class 1 and Class 2. These services were common across different kinds of projects, as they were meant to help families identify and receive other needed services. Class 2 was otherwise defined by therapy or counseling services, though the strength of the association was not as high as those seen in the other two classes.

After multiple iterations and refinements of the LCA models, the final model selected for this analysis was Model 4. This model is supported by the parsimony principle, which fits the data well while using the smallest number of classes. More than half of the families (53 percent) were assigned to Class 1; 36 percent of families were assigned to Class 2; and 11 percent of families were assigned to Class 3.

Table C.8. Model 4 item-response probabilities and percentage of families in each class

Indicator	Class 1	Class 2	Class 3
Case management or service coordination	**0.88**	**0.91**	**0.00**
Support group or workshop	**0.10**	**0.00**	**0.00**
Therapy or counseling	0.53	**0.73**	**0.00**
Parenting training or home visiting program	0.34	**0.29**	**1.00**
Mentoring	**0.76**	**0.00**	**0.00**
Peers provide service	**1.00**	**0.00**	**0.02**
Percentage of families in each class	53%	36%	11%

Note: The analysis included families that received at least one of the primary services or at least one service provided by a peer.

Bolded values indicated an item-response probability that is greater than 0.70.

Source: RPG-Evaluation Data System data, March 1, 2019, through March 11, 2022.

D. Step 4. Classify service use at the grantee level

The final model classified RPG4 projects based on the association of their families with each of the classes.

Box C.3. Class membership probability

Class membership probability is the probability that a family belongs to a specific class. This probability takes on values from 0 to 1.

Values closer to 0 indicate a family is **not likely** to be a member of that latent class; values closer to 1 indicate a family is **likely** to be a member of that latent class. ◢

To identify grantees' class membership, the team calculated the probability that each family belonged to each class, which was based on services families received, as indicated with the six binary indicators in Model 4 (Box C.3). The team used patterns of how each family responded to an indicator to determine the probability of class membership. For example, a family that had service encounters in case management and mentoring and had a peer as a service provider was more likely to belong to Class 1. Similarly, a family that had service encounters in parenting and no other service types was likely to be a member of Class 3. Families were assigned to the class with the highest predicted probability.

The predicted probabilities at the family level were then aggregated to the grantee level. Grantees were assigned to a class by identifying the class the majority of that grantee's families were predicted to belong to. For example, if 1 project had 20 percent of families predicted to be in Class 1, 50 percent of families predicted to be in Class 2, and 30 percent of families predicted to be in Class 3, this grantee would be classified in Class 2 because it had the highest proportion of families predicted to be in Class 2. Table C.9 shows the percentage of families that belonged in each class for each grantee based on the predictions from Model 4. Overall, at least 9 in 10 families for each grantee were in the same class, resulting in straightforward class assignments. One notable exception to this is Grantee O. About one-quarter of this grantee's enrolled families

were assigned to Class 1 based on their pattern of service receipt, whereas the other three-quarters of families were assigned to Class 2. To be consistent with a majority vote approach, the evaluation contractor classified this grantee in Class 2 but noted in Chapter III that this grantee did not fit as easily into either class, which affected the analysis and conclusions.

Table C.9. Percentage of families in each class, by grantee and overall

Grantee	Class 1	Class 2	Class 3
A	92	8	0
B	99	1	0
C	96	0	4
D	90	10	0
E	0	100	0
F	0	100	0
G	0	5	95
H	95	5	0
I	82	18	0
J	97	3	0
K	0	5	95
L	0	99	1
M	0	100	0
N	100	0	0
O	27	73	0
Total	53	36	11

Note: The analysis included families that received at least one of the primary services or at least one service provided by a peer.

Bolded values indicated an item-response probability that is greater than 0.70.

Source: RPG-Evaluation Data System data, March 1, 2019, through March 11, 2022.

Aggregating the predicted probabilities at the grantee level yielded the following groups:

1. Class 1: Eight projects that provided broad, peer-based services
2. Class 2: Five projects that focused on therapy or counseling services
3. Class 3: Two projects that provided parenting training or home visiting services

E. Step 5. Examine service characteristics by latent class

Once the team grouped projects into latent classes, it conducted further analyses to describe patterns of service receipt within each latent class, as presented in Chapter III.

Appendix D:

Partnership Survey: Data and Methods

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This appendix describes the data from the RPG4 and RPG5 partnership survey and the analytic approaches for the findings discussed in Chapter IV. Section A describes the partnership survey. Section B describes the analysis of the collaboration scales that are a part of the partnership survey. Section C describes the social network analysis.

A. Partnership survey

Each RPG4 and RPG5 grantee and all of their partners were invited to participate in the partnership survey in fall 2021, well into the grant period. The RPG project director from the grantee organization responded to the survey and nominated someone from each of the partner organizations to complete the survey as well. Sixteen of the 17 projects in RPG4 and all 10 projects in RPG5 responded to the partnership survey.[67] Within those projects, partners' response rates varied. In the RPG4 cohort, 14 of the 16 responding projects had participation from at least 60 percent of the partners (range 25 percent to 100 percent). In the RPG5 cohort, 8 of the 10 projects had participation from at least 60 percent of the partners (range 25 percent to 100 percent). The total number of respondents was 131 out of a possible 193 (68 percent).

The partnership survey was the same survey that was administered in earlier rounds of RPG data collection (HHS, 2021). The questions were designed to elicit three types of information: (1) the characteristics of the respondent organizations; (2) general descriptions of collaboration and coordination, based on two established measures in the literature; and (3) more specific social network data about the communication and service coordination taking place in relationships between the organizations in a project.

1. Characteristics of respondent organizations

The partnership survey collected information about the grantee and partners' characteristics and their goals for RPG. This information included: (1) the organization type, such as a child welfare or substance use treatment provider; (2) primary organizational activities performed, such as therapy or evaluation; (3) the number and type of evidence-based practices implemented; (4) the number of RPG cases the organization served or planned to serve each year; (5) the funding received by the organization from RPG each year; (6) the in-kind resources the organization contributed to the project, such as staff time or office space; and (7) the main goals of the RPG project as perceived by the respondent.

2. Measures of collaboration

Two established measures—the Working Together Survey (WTS) (Chrislip & Larson, 1994) and the Collaborative Capacity Instrument (CCI) (National Center on Substance Abuse and Child Welfare, 2017)—were part of the partnership survey.

[67] One grantee (Northwest Iowa Mental Health Seasons Center) is a grant recipient in the RPG4 and RPG5 cohorts. These numbers include this grantee in both cohorts. For the analyses presented in Chapter IV, the grantee is included once, in the RPG5 cohort.

Working Together Survey. The WTS includes five scales, or constructs, of collaboration: (1) context of the collaboration, (2) results of the collaboration, (3) structure of the collaboration, (4) collaboration process, and (5) collaboration members.

- The **context of the collaboration** reveals the respondents' perceptions of whether the partnership is working on an important topic. It asks respondents how strongly they agree or disagree with a series of statements; for example, "Our program's top priority was having a concrete impact on the real problem."
- The **results of the collaboration** reveal the importance of achieving the partnership's goals and whether it has the resources to meet its goals. There are two items in this scale: "Our group is effective in obtaining the resources it needs to accomplish its objectives," and "The time and effort of the collaboration is directed at achieving our goals rather than keeping the collaboration in business."
- The **structure of the collaboration** reveals whether the partnership has shared communication norms, defined roles for participants, ground rules for conducting its work, and the ability to share information. This scale has eight items, including "Organizations involved in our program have set ground rules and norms about how we will work."
- The **collaboration process** reveals whether the partnership members listen to others' opinions and have a credible system for making decisions. This scale includes four items; two examples are: "The openness and credibility of the process helps partners set aside doubts and skepticism," and "Our group has an effective decision-making process."
- The **collaboration members** construct reveals how well members can work together across partnership organizations. This scale has five items, with two examples being: "Partners are willing to devote whatever effort is necessary to achieve the goals," and "Staff who participate in program meetings are effective liaisons between their home organizations and the group."

Collaborative Capacity Instrument. The CCI includes five scales of service coordination: (1) daily practice in service coordination; (2) daily practice in screening and assessment; (3) shared principles, approaches, and time frames; (4) joint staff training across organizations; and (5) tracking and sharing information across organizations.

- **Daily practice in service coordination** reveals the partnerships' capacity to coordinate participant services through case management, intake, and family team conferences. Respondents say how strongly they agree or disagree with statements such as, "Staff from both substance use treatment providers and child welfare agencies participate in joint case management activities such as family team conferences, case plan reviews, or intake or permanency staffings."
- **Daily practice of screening and assessment** reveals partnerships' capacity to coordinate the work of substance use treatment and child welfare agencies to produce cross-agency assessments. This category has two items, one for substance use treatment and one for child protective services.

- **Shared principles, approaches, and time frames** assesses how successful the partnership was in developing a collaborative relationship by sharing principles, values, approaches, and time frames. This scale includes three items. One of those is "Region/partnership developed responses to conflicting time frames associated with child welfare services and [substance use] treatment, Temporary Assistance for Needy Families, and child development."
- **Joint staff training across organizations** is measured by one item about whether the partnership had developed training sessions for organizations working across different systems: "Joint training programs for the three main systems staff have been developed to help staff and providers work together effectively."
- **Tracking and sharing information across organizations** reveals the partnership's capacity to track and share participants' information across partners. Respondents recorded how strongly they agreed with three statements about information sharing, for example, "Formal working agreements have been developed on how courts, child welfare, and treatment agencies will share client information."

Social networks. The partnership survey also included eight items that address different aspects of communication and service coordination among partners. These items measured the partnerships' social networks; in other words, they provided information about whether partners were connected with each other and what activities they connected for. Specifically, the eight items measured whether a respondent had: (1) worked with one of the other organizations in the project before the RPG grant; coordinated with any of the other organizations; (2) communicated outside of formal RPG meetings; (3) done screening and assessment; (4) engaged in referring families to the RPG program; (5) collaborated on cases or case management (6) provided substance use treatment; (7) provided mental health and trauma services; and/or (8) provided other social and family services. In the survey, each respondent provided information about whether they worked with any of their partners on these eight different aspects of coordination. For example, if an RPG partnership consisted of 10 organizations, each respondent to the survey would talk about specific relationships with the other 9 organizations in the partnership. These responses about connections (or the lack thereof) between all organizations within a partnership identify the relationships among partners, or the "social network" of the partnership.

B. Analysis of the measures of collaboration

The cross-site evaluation team did not calculate CCI scale scores because so many respondents answered "does not apply/don't know" when they were asked how strongly they agreed or disagreed with the statements in the measure. As noted, respondents used a Likert scale ranging from "strongly agree" to "strongly disagree" to record their answers. Respondents could also choose "does not apply/don't know." Response rates to individual items on the Likert scale ranged from 44 percent to 88 percent; only 15 percent of the respondents gave a response of "agree" or "disagree" to all items in the CCI. As a result, only the individual CCI items are included in the overall descriptive analysis in Chapter IV.

The WTS uses five established constructs of collaboration to shed light on how respondents perceived their collaboration. The analysis of the WTS included an examination of how well the individual items represent each of those five constructs based on an internal consistency statistic called Cronbach's alpha. It assesses how well all the items on a scale measure the same construct or idea. Values closer to 1 indicate items that are more strongly related to one another. The alphas for the WTS in the RPG data are presented in Table D.2. In general, the WTS is an internally consistent and reliable assessment of the underlying constructs of collaboration.

Next, the team calculated means for each scale by first averaging scores from each organization within a partnership for that construct. Each individual item was scored on a scale of strongly disagree (a score of 1) to strongly agree (a score of 4), where higher scores demonstrate agreement with these dimensions of collaboration and coordination. Then, to obtain grantee-level averages, the organization-level construct scores were averaged within each partnership.

Table D.1 shows the mean, standard deviation, and range for the WTS subscales. In addition, the tables show the number of grantees out of a total of 17 that had scores lower than 3 on the scale, indicating they disagreed that their partnership had that aspect of collaboration or coordination in place. Findings from the WTS on how positively respondents viewed their partnerships are in Chapter IV of this report.

Table D.1. Partner organizations' perceptions of their collaborations

Working Together Survey construct	Mean	Standard deviation	Range	Number of partnerships whose partners had an average score below 3[a]
RPG 4 partnerships (n = 16)[a]				
Context of collaboration	3.63	.15	3.33–3.90	0
Structure of collaboration	3.23	.23	2.67–3.55	2
Collaboration members	3.12	.28	2.53–3.50	4
Collaboration process	3.14	.24	2.58–3.46	3
Results of collaboration	3.11	.25	2.50–3.42	3
RPG 5 partnerships (n = 10)				
Context of collaboration	3.49	.32	3.00–4.00	0
Structure of collaboration	3.24	.20	2.96–3.60	1
Collaboration members	3.19	.27	2.73–3.50	2
Collaboration process	3.30	.22	2.96–3.63	1
Results of collaboration	3.27	.25	3.00–3.75	0

[a] One grantee from the RPG4 cohort did not respond (and did not have any partners respond) to the partnership survey.

Notes: Response options ranged from strongly disagree (1) to strongly agree (4). The statistics are based on unweighted grantee averages such that all 17 grantees contributed equally to the analyses, regardless of the number of respondents from each grantee.

Source: Working Together Survey (Chrislip & Larson, 1994); administered as part of the RPG partnership survey in fall 2021.

Table D.2. Internal consistency of the WTS subscales in RPG4 and RPG5

Working Together Survey construct	Internal consistency (Cronbach's alpha)
Collaboration context (2 items)	.71
Collaboration structure (8 items)	.88
Collaboration members (5 items)	.80
Collaboration process (4 items)	.87
Collaboration results (2 items)	.65

Note: Cronbach's alpha was calculated at the grantee level, including both the RPG4 and RPG5 cohorts.

Source: Working Together Survey (Chrislip & Larson, 1994); administered as part of the RPG partnership survey in fall 2021.

C. Social network analysis

The team used social network analysis to examine the social network items described earlier in this appendix. The analysis takes into account all of the responses from the partnership, instead of analyzing each respondent's survey separately. Social network analysis captures which organizations collaborate on which activities with other organizations in their partnership. For example, a substance use treatment organization might coordinate with a child welfare organization in its partnership to provide services to families; however, the substance use treatment organization might not coordinate with the children's mental health organization, even if that organization has a relationship with the child welfare organization. Social network analysis takes all of these relationships into account to determine the level of connectedness within the partnership.

The partnership survey included questions about respondents' interactions with the other organizations in their partnership across eight dimensions of social networks: (1) the partners' level of communication; (2) the partners' frequency of communication and coordination; (3) screening and assessment; (4) referrals; (5) case management or coordination; (6) substance use treatment; (7) mental health and trauma services; and (8) other social and family services.

For the social network analysis, the cross-site evaluation team produced a matrix for each social network in a given partnership. Table D.3 illustrates this with a matrix for a hypothetical partnership of four organizations.

Table D.3. Example of social network data for a hypothetical partnership

Partnership A	Organization 1	Organization 2	Organization 3	Organization 4
Organization 1	—	1	1	1
Organization 2	0	—	0	1
Organization 3	0	0	—	1
Organization 4	0	1	1	—

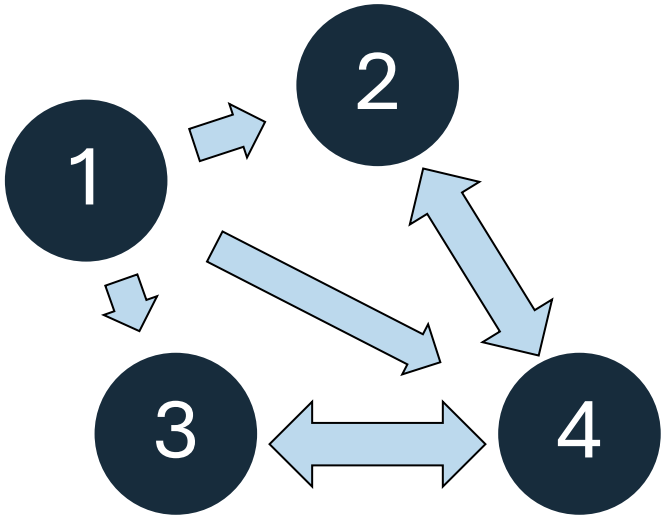
Note: A 0 represents no connection between the two organizations, and a 1 represents a connection. The dash indicates the relationship is not possible because an organization has no relationship with itself.

This matrix shows whether each hypothetical organization has reported a connection with the other organizations in the partnership for each network in the matrix. In this example, Organization 1 (Row 1) has reported connections to Organizations 2, 3, and 4. Organization 2 (Row 2) has reported a connection to Organization 4. Organization 3 (Row 3) has reported a relationship with Organization 4. Organization 4 (Row 4) has reported a connection to Organization 2 and Organization 3.

Notably, the matrix represents the perceptions of each responding organization about its relationships with other organizations—perceptions that may not be shared by corresponding organizations in the partnership. For example, in Table D.3, Organization 1 has reported a connection with Organization 2, but Organization 2 has not reported a connection with Organization 1.

The matrix can be represented visually, as shown in Figure D.1. Circles represent each of the four organizations, and arrows indicate the relationships between them. These arrows specify the direction of the relationship: whether a responding organization reported a relationship with another organization. For example, there is an arrow from Organization 1 to Organization 2, but this arrow is not bi-directional, suggesting that Organization 2 did not indicate a relationship with Organization 1. A bi-directional arrow, like the one between Organizations 3 and 4, indicates that both organizations said they had a relationship with the other.

Figure D.1. Example visualization of the social networks



1. Analysis

The social network analysis produces a score called a density score for each of the eight networks. The density score is the ratio of the number of connections that exist between partners compared with the total number of connections that could possibly exist in that partnership. Using the example in Table D.3, there are 7 observed connections (7 relationships identified in the matrix), and a total of 12 possible connections. Therefore, the density score for this network is 0.58. If every partner were connected to all of the other organizations, the density score would be 1. If none of the organizations connected with the other organizations, the density score would be 0.

The cross-site evaluation team calculated a density score for seven of the collaboration networks covered by the survey. For the item assessing frequency of communication, the statistic created was called the average tie strength. The difference is because of the Likert scale's response format for that item; the interpretation of the statistic is the same. The team then averaged the density scores for each network across the RPG4 and RPG5 partnerships. Table D.4 shows the average density scores for each network along with the range of the density scores, which indicates the degree to which the density scores vary across partnerships.

Table D.4. Social network analysis: density scores for the eight networks in the partnership survey

Network	RPG4 and RPG5 average density	RPG4 and RPG4 density range
Communication	.43	.08–1
Communication frequency	.67[a]	.32–1[a]
Screening and/or assessment	.23	0–.83
RPG program referrals	.23	0–.67
Case management or coordination	.25	0–.50
Substance use disorder treatment	.21	0–.67
Mental health/trauma services	.15	0–.38
Other social and family services	.22	0–.50

[a] This statistic is the average tie strength, not the density statistic, because of the Likert scale's response format for the item.

Source: RPG partnership survey, fall 2021.

D. Mapping the partnership survey items and measures to the partnership framework

A pyramid figure in Chapter IV describes three levels of interagency collaboration: (1) shared common vision; (2) aligned operational processes; and (3) integrated service provision (see figure IV.1 in Chapter IV). The figure was included in prior reports to Congress (HHS, 2021, for example). Table D.5 maps each of the data points from the partnership survey to the collaboration level it corresponds with. In Chapter IV, the findings are presented by the level of the pyramid they correspond with.

Table D.5. Sources of partnership survey data, and the collaboration continuum

Level of the framework	Source of partnership survey data
Level 1. Shared common vision	• Open-ended survey question about the goals of the collaboration • Social network items about communication • Items about monetary and in-kind resources • WTS scales: collaboration context, collaboration members, collaboration results
Level 2. Aligned operational processes	• Items from the CCI about collaborative case management • WTS scales: collaboration structures and collaboration processes
Level 3. Integrated service provision	• Items from the CCI about information sharing, shared outcomes, and shared time frames • Social network items about activities partners coordinate on

Appendix E:

Methods for Collecting and Analyzing Site Visit Data

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A. Interview topics

Site visit interviews conducted in summer and fall 2021 examined the partnerships that developed between child welfare agencies, substance use treatment providers, and (where applicable) the courts, through the RPG program.[68] Table E.1 lists main interview topics.

Table E.1. Topics for site visit interviews

Topic	Description
Partnership composition and roles	• Key partners from child welfare agencies, substance use treatment providers, and courts
Development of shared goals and service plans	• Roles of key partners from child welfare and substance use treatment systems (and courts, where applicable) in developing project plans • Project goals and alignment with organizational goals • Planning successes and challenges
Ways partners worked together to achieve goals	• Roles and responsibilities of key partners in delivering the project • Communication between partners • Making decisions and resolving differences with partners
Facilitators and barriers to working together	• Ten factors thought to affect collaboration between child welfare agencies and substance use treatment providers: – History of working together – Leadership support – Resources and funding – Staff time and turnover – Competing timelines and priorities – Capacity to serve participants – Staff training – Partners' ability to meet (in person or virtually) – Power imbalance – Local policy context
Perceptions about progress toward interagency collaboration	• Ways the partnership helped families • Partners' investment in project

Note: Key partners include the grantee.

B. Interview respondents

For all 27 RPG4 and RPG5 projects, the cross-site evaluation team aimed to interview RPG project directors and lead contacts at child welfare and substance use treatment partners. Where child welfare agencies or substance use treatment providers were awarded the grants, the team aimed to hold at least two interviews—one with the child welfare agency leaders and one with the leaders at the substance use treatment provider. Where another type of agency was awarded the grant, they aimed to hold at least three interviews—one each with leaders from the RPG project, the child welfare agency, and the substance use treatment partner. Some projects had

[68] The team obtained limited information on the courts' influence on RPG projects and partnerships between child welfare agencies and substance use disorder treatment providers; thus, courts were not a focus in Chapter V.

multiple child welfare agency partners or multiple substance use treatment provider partners, including partners in different jurisdictions. In these instances, interviewers invited the most knowledgeable partners to participate in interviews, but did not attempt to talk to all child welfare or substance use treatment partners in the partnership. For 11 of the projects, the team also interviewed supervisors and direct service staff delivering RPG services to hear a range of perspectives. When project leaders named courts as key partners, the team attempted to interview lead court contacts.

The team conducted 116 interviews across 25 projects. One grantee was awarded a grant in Rounds 4 and 5, and the same child welfare and substance use treatment partners were involved in both grant projects. Thus, interviewers conducted one set of interviews for both grant projects. These projects were counted only once for simplicity's sake. Another grantee did not participate in the site visits, bringing the total number of RPG4 and RPG5 grantees that participated to 25 (15 from Cohort 4, 9 from Cohort 5, and 1 from both cohorts). Child welfare staff in 21 of these 25 projects and substance use treatment providers in 23 projects participated in interviews (Table E.2). About half of the interviews were with directors, managers, or administrators; about 30 percent were with supervisors; and the rest were with direct service staff (Table E.3).

Table E.2. Number of partners and respondents interviewed

Type of entity	Number of projects in which entity participated in interviews	Total respondents interviewed across projects
Substance use treatment provider[a]	23	57
Child welfare agency	21	34
Court	7	9
Family strengthening[b]	4	9
Other[c]	5	7

[a] Substance use treatment providers included those that offered recovery services (such as medication for opioid use disorder or residential treatment) to adults with substance use issues, or mental or behavioral health treatment or supports (such as intensive case management, assessments, peer mentorship, and counseling or therapy) to adults, children, or the family unit affected by substance use. They might have also offered family strengthening or parenting supports. For analyses in Chapter V, an entity could be classified as a substance use treatment provider if the substance use treatment services were available through another unit in the entity or if the entity provided behavioral health supports and partnered with another substance use treatment provider for recovery services.

[b] This category includes entities that offered family strengthening or parenting supports and did *not* also offer substance use treatment services to adults, children, or the family unit affected by substance use issues.

[c] Other types of entities included family advocacy organizations, universities, a peer recovery organization, and a state agency overseeing substance use treatment services.

Table E.3. Staff level of respondents who participated in site visit interviews

Staff level	Number of respondents interviewed
Director, manager, or administrator[a]	60
Supervisor	37
Direct service staff	19
Total	116

[a] Included staff who manage coordination across agencies.

C. Analysis approach

After completing all interviews for a project, interviewers used a write-up template to combine answers from respondents within a project. The template mapped to the interview protocols and covered all discussion topics. The interviewer noted any alignments or discrepancies between interview respondents. An experienced team member reviewed all write-ups for clarity and consistency.

To examine responses across projects, team members imported write-ups into NVivo and qualitatively coded the raw data. The team then used analytic spreadsheets in Excel to identify themes and thematically code the raw data and tally project responses. If an interviewer did not ask project respondents a particular question and respondents did not otherwise raise the topic, it was left as a missing response. Responses that aligned with the theme were counted as supporting the theme, and any missing responses or responses that did not align were considered to not affirm the theme. Thus, project counts presented in Chapter V should be interpreted as the number of projects in which respondents discussed a theme when asked to or raised a theme themselves. An experienced team member reviewed analytic files to verify the accuracy of themes and counts. Team members discussed all areas of disagreement or complexity in developing themes and counts.

To analyze collaboration between staff from child welfare agencies and substance use treatment providers, two experienced team members examined raw data pertaining to: (1) referral procedures, and (2) interagency case management and case consultation. To classify the raw data by level of collaboration, they considered whether the data reflected the project definitions for collaboration, communication, cooperation, or coordination. The team members refined the criteria iteratively to capture the range of responses and meaningful distinctions across levels. They then tallied the number of responses that aligned to the criteria for each level of collaboration.

To analyze the set of facilitators and barriers common to collaboration efforts by child welfare agencies and substance use treatment providers, cross-site team members categorized, for each project, responses to each factor as being: (1) an overall facilitator, if respondents described using the factor to strengthen the partnership; (2) a barrier, if they described the factor as limiting or hindering their partnership; or (3) neutral, if the respondents did not think the factor materially strengthened or hindered the partnership. Team members then counted the number of projects in

which the factor was a facilitator, barrier, or neutral to the partnership and used the following criteria to classify the factor across projects:

- If "facilitator" was the most frequent response across projects (that is, if more projects described a factor as a facilitator than as a barrier or neutral), team members considered whether the factor was: (a) a facilitator or (b) a facilitator with limitations. Team members classified the factor as a facilitator with limitations if many projects described the factor as helpful for the partnership overall but noted limitations that prevented them from benefiting from the factor more fully. If limitations were not commonly discussed, they classified the factor as only a facilitator.
- If barrier was the most frequent response across projects, team members classified the factor as a barrier for most projects.
- If a factor was *not* most frequently cited as a facilitator or barrier across the 23 projects included in this analysis, team members concluded the factor did not seem to have a major influence on the collaborations.

Using these criteria, eight factors were classified as a facilitator, barrier, or facilitator with limitations. Chapter V focuses on only the eight factors found to influence the partnership as a facilitator, barrier, or facilitator with limitations; the chapter excludes the two factors (power imbalance and local policy context) that did not seem to influence the partnerships in the aggregate.

Appendix F:

Cost of Selected Services

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A. Data collection time frame

The cost study had two sources: (1) a cost workbook of detailed expenditure data, and (2) a staff survey and time log showing how much time staff spend on their trauma-specific evidence-based practices (EBP). For the cost workbook, grantees selected the one-year period to report based on their preference. The four grantees selected three different but overlapping time frames, with the earliest starting in July 2020 and the latest starting in March 2021. Staff from all four grantees completed the staff survey and time log in March 2022 (Table F.1).

Table F.1. Time frames for collecting cost data

Grantee	Cost workbook		Staff survey and time use log	
	Data collection time frame	# of participants served	Data collection time frame	# of staff delivering EBP in March 2022
Seeking Safety				
Grantee 1	July 2020–June 2021	30	March 2022	1
Grantee 2	Jan 2021–Dec 2021	13	March 2022	4
Grantee 3	Mar 2021–Feb 2022	26	March 2022	7
Trauma-Focused Cognitive Behavioral Therapy				
Grantee 4	Mar 2021–Feb 2022	11	March 2022	2

Source: Cost workbooks completed by grantees in March 2022. Participant counts retrieved from the RPG-Evaluation Data System in June 2022. Staff counts are from staff surveys completed in March 2022. Not all staff who were listed in the cost workbook responded to the staff survey.

B. Description of the data collection instruments

1. Cost workbook

The cost workbook is an Excel-based tool that captures information on the resources used to provide programming and their estimated value or the amount spent on them. The workbook is organized by eight resource categories, with a separate worksheet for each one: (1) salaries and fringe benefits, (2) contracted services, (3) volunteer labor, (4) supplies and materials, (5) equipment, (6) office space and other facilities, (7) other direct costs, and (8) indirect (overhead) costs (Table F.2).

Table F.2. Resource categories for the cost analysis

Resource	Information to be collected
Personnel: salaries	Salaries paid to staff working on the EBP based on the full-time annual salary for each position as defined by the grantee organization, and the average percentage of time spent on the EBP by the staff.
Personnel: fringe benefits	Aggregated value of payroll taxes and other benefits for staff working on the EBP, reported as a percentage of salary or total amount.
Personnel: volunteer/donated labor	For each volunteer position, number of hours worked per week, number of months worked per year, and estimated average hourly wage for a paid staff member in a similar position.

Resource	Information to be collected
Contracted services	Costs for contracted service providers and consultants working with the EBP. These may be available as totals, or broken out by components of costs (for example, cost per counseling session or staff training), depending on the partner type and terms of the contract.
Supplies and materials[a]	Expenditures on supplies and materials (for example, office supplies and educational materials); estimated value of donated supplies and materials.
Durable equipment[a]	Original purchase price, year purchased, and expected useful life of any durable equipment or capital assets used by the EBP for more than one year. Examples include computer systems, automobiles, or office furniture.
Office space and other facilities[a]	Value of annual rent/lease/mortgage payments for space or facility, and proportion used by the trauma-specific EBP. For donated space, estimated annual cost of space based on fair market value and portion of the year the EBP used the space.
Other direct costs[a]	Direct EBP costs not included in above categories. These costs may include training costs, communications, expenditures on cell phones and other utilities, transportation or mileage reimbursement related to providing services, staff travel expenditures for other purposes, postage/shipping, printer/copier, systems hardware or software, insurance, public affairs, legal services, banking fees, taxes paid by the grantee organization, and other costs.
Indirect (overhead) costs	Indirect (overhead) costs allocated to the EBP (for shared functions within an agency, such as human resources, technology, marketing, communications, or building maintenance) and not reported under other resource categories.

[a] Some or all of these resources may be included in an organization's overhead costs and allocated to individual EBPs through an indirect cost rate.

Grantees completed a separate workbook for each EBP. Grantees reported cost data for a recent 12-month steady-state period, typically their most recent fiscal year. A person familiar with project finances completed the cost workbook.

2. Staff survey and time log

The staff survey and time log has two parts: (1) a brief survey on staff members' positions, work hours, and training received related to the trauma-specific EBP, and (2) a daily log for entering the number of hours each staff member spends on activities related to the trauma-specific EBP during the one-month data collection window. For this implementation of the cost study framework, the study team tailored the staff time log used in the cost study pilot (Burwick et al., 2017) to capture information about implementation during the COVID-19 pandemic. Specifically, the team added one question to the staff time log for staff to approximate the percentage of time spent delivering services to participants in a virtual setting.

Grantees completed time logs over a one-month period in March 2022. All staff who spent time delivering EBPs, supporting service delivery, or administering activities associated with the EBP were asked to complete the staff survey and time log. The staff response rate was 100 percent.

The evaluation contractor allocated costs across program components by using data on how staff used their time to deliver program services, as reported in the staff time-use survey. The evaluation contractor used the staff time-use data to determine the fraction of total working time each type of staff spent per component, and then applied the fractions to the labor costs for each staff type.

C. Analysis methods and technical considerations

To estimate the program costs, the study team used the "ingredient" or resource cost method (Levin & McEwan, 2001). The first step was to identify all resources grantees needed to deliver their EBP. The second step of the ingredient method involved assigning a dollar value to each identified resource, either directly from accounting records or by estimating the value using market prices or publicly available sources (for example, commercial rental rates for space and comparable wage rates for volunteers). These dollar values formed the basis of the program cost estimates.

To answer the research questions for the cost analysis, the study team produced two cost estimates: total program cost and average total cost per participant. Although the study was also intended to estimate program start-up costs required to plan for and initiate selected trauma-specific EBPs, the burden on respondents to generate reliable estimates would have been too great because these programs began many years ago. Therefore, the team did not pursue this research question.

Estimating total program costs. To estimate total program costs, the study team summed the value of all the resources grantees reported using during the one-year reporting period. For each cost they reported, grantees were asked to record the cost to the program during the reporting period and indicate the percentage of that cost that was used specifically to implement the trauma-specific EBP as opposed to the organization's other programs. If respondents reported using facilities at no cost to the program, the study team estimated the value of the office space using commercial rental rates for comparable-size buildings in the metropolitan area where the program operated.[69]

Before analysis, reported costs needed to be adjusted to allow comparisons across grantees. Because these programs operated in different parts of the country with varied costs of living, the study team adjusted costs to the national average. To do so, the team calculated the wage index using the average hourly wage for substance use disorder, behavioral disorder, and mental health counselors at local (where grantees were located) and national levels. The index was then applied to all costs to adjust them to a national standard for comparison.

Estimating total costs per participant. To estimate the total cost per participant, the team defined a participant as any individual or parent-child dyad served by the EBP during the cost study period, as identified in the RPG-Evaluation Data System database corresponding to the time frame in the cost workbook. Total costs were divided by the number of participants or participant dyads to produce an estimated cost per participant. Using this approach, estimates of per-participant costs will not account for variation in service intensity or duration.

D. Unadjusted costs and additional tables

This section provides additional information on the costs associated with implementing the EBPs. Table F.3. shows the mean and range for all cost categories in the study. (No grantees

[69] Estimates for resources used at no cost to the grantee were only generated for facilities costs.

had entries in the volunteer labor category, so it is not included in this table.) Two grantees incurred costs for supplies and materials such as program curricula, books, educational supplies, and markers and craft supplies to implement Seeking Safety. Two of the three grantees implementing Seeking Safety had costs for contracted services to purchase training and engage with partners to provide support to families. Three grantees reported other direct costs such as travel and mileage reimbursement, repairs and maintenance, and/or electronic health record systems that supported the EBP. All four grantees reported costs for equipment, such as laptops and computer accessories, tables, and chairs.

Table F.3. Cost allocation by resource category

	Seeking Safety			TF-CBT
	Mean	Range		Cost
Personnel	$24,352.96	$5,439.86	$55,902.35	$1,155.05
Contracted services	$673.08	$0.00	$1,875.00	$0.00
Facilities	$4,581.68	$58.19	$7,620.35	$101.51
Supplies and materials	$786.67	$0.00	$1,768.99	$0.00
Equipment	$180.36	$33.54	$437.98	$7.39
Other direct costs	$374.06	$93.91	$927.72	$0.00
Indirect/overhead costs	$9,031.23	$1,818.86	$13,379.44	$780.79

Note: Data for Seeking Safety provide the mean and range of the costs reported by three grantees. Data for TF-CBT represent the costs reported for the one grantee implementing the EBP. Total annual costs were restricted to the implementation of the EBP and adjusted to a national average. All grantees reported evaluation costs as a contracted service. Because the evaluation services were obtained to support the RPG project and not the specific trauma-informed EBPs, costs for evaluation support were excluded from the analysis. Equipment costs were adjusted for reflect the useful life of the item.

Source: Cost workbooks completed by grantees in March 2022.

Overall, for each cost category reported, only a small percentage was allocated to support the implementation of the EBP (Table F.4).

Table F.4. Percentage of reported costs allocated to implementing the EBP

	Seeking Safety		TF-CBT		Total	
	Mean	Range	Mean	Range	Mean	Range
Staff time (%)	6.8	0.1–25.0	1.1	0.3–1.6	6.0	0.1 – 25.0
Supplies and materials (%)	11.5	0.0–25.0	0.0	0.0–0.0	9.6	0.0–25.0
Equipment (%)	9.1	0.1–25.0	1.1	0.3–1.6	7.6	0.1–25.0
Facilities – space used (%)	8.9	2.0–25.0	6.3	5.0–8.0	8.1	2.0–25.0
Facilities – days per week (#)	1.7	< 0.1–5.0	0.1	< 0.1–0.3	1.2	<.1–5.0
Indirect costs (%)	13.0	2.0–25.0	1.0	1.0–1.0	10.0	1.0–25.0

Notes: Data reflect the average, minimum, and maximum percentages reported by grantees when they were asked to estimate the percentage of each reported cost that was specifically used to support the implementation of the EBP. Grantees reported the total cost during the reporting period for entries in each cost category, and provided their own estimate of the percentage used for the EBP. Although only one grantee was implementing TF-CBT, there were multiple entries for each of these cost categories, allowing us to provide a range for each category.

Source: Cost workbooks completed by grantees in March 2022.

E. Detailed staff survey and time use data

1. Staff survey

The staff survey provided details on positions, employment information, and training for the staff delivering EBPs. Staff delivering EBPs had several job titles: associate outpatient therapist, family case coordinator, family recovery clinician, outpatient program manager, outpatient therapist, RPG specialist, trauma-informed case coordinator, and trauma therapist. All staff who responded to the question were permanent full-time employees who worked an average of 39.5 hours a week.

All staff received an initial training on the EBP they delivered. An initial training refers to formal or structured training staff received before delivering EBPs to participants. More than half of staff (54 percent) reported the initial training was provided by another staff at their agency. The initial training was delivered to an equal proportion of staff (23 percent) through a formal training led by the developer of the program or as an online training or access to online resources. Nearly all staff reported there was either no cost for the trainings (46 percent), or that their agency paid the cost (42 percent). One staff member paid the cost of the initial training themselves (8 percent). Most staff were paid for the time that they spent in the initial training (85 percent), regardless of how the training itself was paid for.

On average, staff received 4.6 hours of initial training, ranging from 1 to 10 hours in length. Four staff could not recall how long their initial training was. Two-thirds of staff received one initial training. Fewer staff received 2 (16 percent) or 3 (8 percent) initial training sessions.

No staff reported receiving any additional or ongoing training in the past 12 months, not including regular supervision or clinical support. Additional or ongoing training is formal or structured training staff received after they started providing EBPs, such as a session to review EBP concepts or methods.

2. Time use data

Table F.5 and Table F.6 provide more information on staff's time use.

Table F.5. Seeking Safety activities

Activity	# staff reporting any days	Days spent delivering services: Average number of days delivering services	Days spent delivering services: Minimum number of days delivering services	Days spent delivering services: Maximum number of days delivering services	Days spent delivering services: Average minutes per day	Total hours over the month	Number of participants[a]: Average	Number of participants[a]: Minimum	Number of participants[a]: Maximum
Group service delivery (one grantee)									
Overall time in group delivery	*4*	*5.25*	*1*	*10*	*31.75*	*31.75*	*NA*	*NA*	*NA*
Session planning and preparation	3	6.67	1	10	19.25	6.42	NA	NA	NA
Clinical service delivery	3	6.67	1	10	58.00	19.33	NA	NA	NA
Case documentation	3	6.67	1	10	18.00	6.00	NA	NA	NA
Individual service delivery (two grantees)									
Overall time in individual delivery	*7*	*7.00*	*0*	*21*	*41*	*133.57*	*9.23*	*0*	*41*
Screening, assessment, and enrollment	4	1.29	0	4	81.56	9.83	1.29	0	4
Session planning and preparation	4	3.00	0	10	26.00	10.50	3.86	0	15
Clinical service delivery	7	8.14	1	21	68.68	76.12	12.71	1	41
Case documentation	7	8.29	3	21	16.74	20.37	12.57	3	39
Case management	5	3.57	0	19	24.54	16.75	4.00	0	22
Management (three grantees)									
Overall time in management tasks	*6*	*3.78*	*1*	*12*	*31.75*	*35.42*	*n.a.*	*n.a.*	*n.a.*
Supervision and clinical support	6	4.50	1	12	47.59	21.42	n.a.	n.a.	n.a.
General outreach	1	3.00	3	3	180.00	9.00	n.a.	n.a.	n.a.
Program administration and management	2	2.00	1	3	75.00	5.00	n.a.	n.a.	n.a.

[a] The data collection instrument does not collect information on the number of participants in a group setting. The number of participants is not applicable for management tasks.

Source: Time use logs completed by grantees in March 2022.

Note: n.a. = not applicable. NA = not available.

Table F.6. TF-CBT activities

Activity	# staff reporting any days	Days spent delivering services				Total hours over the month	Total number of participants		
		Average number of days delivering services	Minimum number of days delivering services	Maximum number of days delivering services	Average minutes per day		Average	Minimum	Maximum
Individual service delivery									
Overall time in individual delivery	*2*	*5.87*	*0*	*11*	*22.23*	*17.42*	*6.90*	*0*	*13*
Screening, assessment, and enrollment	2	1.00	0	1	25.50	0.67	1.00	0	1
Session planning and preparation	2	10.00	0	10	47.73	1.83	12.00	0	12
Clinical service delivery	2	7.50	4	11	25.28	5.67	9.00	5	13
Case documentation	2	7.50	4	11	8.75	1.42	8.50	4	13
Case management	2	3.00	2	4	7.50	0.38	4.00	3	5
Travel and transportation	0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Management									
Overall time in management tasks	*1*	*1*	*0*	*1*	*15*	*15*	*n.a.*	*n.a.*	*n.a.*
Supervision and clinical support	1	1	0	1	15	15	n.a.	n.a.	n.a.
Outreach	0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Program administration and management	1	2	0	2	10	20	n.a.	n.a.	n.a.

Note: n.a. = not applicable.

Source: Time use logs completed by grantees in March 2022.

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Appendix G:

Outcomes

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This appendix is a technical summary of the data and methods used to summarize results on participants' outcomes. The cross-site evaluation team used these data to describe the population of interest for RPG4 (Chapter II), how participants' outcomes changed over time for RPG4 (Chapter VI), and participant outcome measures at enrollment for RPG5 and RPG6 (Chapter VIII). The appendix has three sections: Section A describes the participants' outcome data used in this report (data elements obtained through standardized instruments and administrative data). Section B describes how these data were prepared for the purposes of the analyses. Section C gives information on how the outcome data were analyzed in the report, with additional technical details on: (1) how the baseline analyses in Chapter II and VIII were conducted; (2) how individuals with both baseline and follow-up standardized instrument data differed from individuals with only baseline data; (3) the approach for calculating nonresponse weights; (4) the analytic approach for comparing baseline and follow-up outcomes in Chapter VI; and (5) sensitivity analyses used to assess the robustness of the benchmark results presented in Chapters II and VIII.

A. Description of the outcome data

To understand key outcomes of interest, the cross-site evaluation team collected a comprehensive set of common data elements on adults and children across grantees. At program entry and exit, grantees administered standardized child and adult assessment instruments to adults. Grantees also obtained: (1) administrative child welfare data for all children for the period from birth to up to one year after RPG enrollment, and (2) data on treatment for substance use for enrolled adults from age 18 to up to one year after RPG enrollment. Not all grantees were able to obtain these data. The data used for this report are based on grantees' cumulative s of outcome data through March 11, 2022, for RPG4 and November 12, 2021, for RPG5 and RPG6.

An RPG case consists of the group of individuals who enroll in an RPG project together. An RPG case can be, but is not always, the same as the family unit. Although RPG cases could include more than one child, grantees collected standardized assessment data on only one focal child in each case, with that child selected according to a rule established by each grantee. This enabled HHS to obtain detailed information on child well-being outcomes in each RPG case without placing excessive burdens on grantees or families. Administrative data were collected for all children in a case.

1. Data from standardized instruments

Grantees administered standardized instruments to obtain information on child and adult well-being (family functioning) and adult substance use. The primary caregiver of the focal child in the case was the intended reporter for all domains; he or she would provide information on the well-being of the focal child and on their own well-being at baseline and follow-up. In many cases, the primary caregiver was the individual in the case who was engaged in substance use treatment and, therefore, was the reporter on substance use. However, in some cases, the primary caregiver was not involved in substance use treatment; in these situations, a separate

individual in the case who was involved in this type of programming provided information on substance use. The cross-site evaluation labels the individual providing information about substance use outcomes as the recovery domain adult (RDA).

The standardized instrument data collected by grantees to inform the cross-site evaluation were intended to be administered to the appropriate members of the case at program entry (enrollment) and at program exit (either successful completion of the program or dropout). The default rules for data collection stated that grantees should complete baseline data collection within 30 days of enrollment, and again within 30 days of case closure (regardless of whether the case closed as a result of successful program completion or program dropout). However, some grantees used modified versions of these rules (occasionally using a wider enrollment window or a longer period before attempting follow-up data collection after a person did not complete programming).

a. Instruments to assess adult recovery

Recovery from substance use is a process of change that permits people to make healthy choices and improve the quality of their life (SAMHSA, 2012). Supporting adult recovery can be an explicit or implicit goal of RPG projects. The standardized instruments that the cross-site evaluation used to assess adult recovery were (1) the Addiction Severity Index, Self-Report Form (ASI-SR; McLellan et al., 1992) and (2) the Trauma Symptoms Checklist-40 (TSC-40; Briere & Runtz, 1989).

- **Adult substance use.** The cross-site evaluation used the 10 questions in the drug/alcohol use subscale[70] of the ASI-SR, a widely used tool in the addiction field, to measure the extent and severity of substance use by adults in RPG. Examples of questions include: "How many days have you used more than one substance (including alcohol) in the past 30 days?" and "In the past 30 days, how many days have you experienced drug problems?" Along with indicating the use of alcohol and other drugs, the ASI has been shown to be predictive of substance use disorder (Rikoon et al., 2006). However, the results of the instrument alone are not enough to establish this diagnosis, and it was not used for that purpose in the cross-site evaluation.
- **Adult symptoms of trauma.** Experiences of trauma are strongly predictive of subsequent substance use issues (National Child Traumatic Stress Network, 2008) and create their own difficult problems for families and programs to address. The cross-site evaluation measures adult trauma symptoms using the TSC-40 as one measure of adult recovery from substance use issues. The TSC-40 measures aspects of post-traumatic stress and other symptom clusters in adults who have experienced traumatic experiences as children or in adulthood. It is a self-administered questionnaire with items covering six subscales: (1) anxiety, (2) depression, (3) dissociation, (4) Sexual Abuse Trauma Index, (5) sexual problems, and (6) sleep disturbance. The items can also be combined into a total score. Adults answer

[70] The full ASI-SR has six subscales: (1) medical status, (2) employment/support status, (3) drug/alcohol use, (4) legal status, (5) family/social relationships, and (6) psychiatric status. To limit the burden on participants, the cross-site evaluation only uses the drug/alcohol use subscale.

questions such as "How often have you experienced each of the following in the last two months?" by reporting how often they have had symptoms such as "headaches," "sadness," or "anxiety attacks."

b. Instruments to assess family functioning

Family functioning can be affected by parents' mental health and parenting attitudes. Substance use issues can cause, or result from, mental health problems such as depression (Grant & Harford, 1995). Issues with parents' mental health and their parenting abilities are linked to the risk of child maltreatment and poor child outcomes (Budd et al., 2006; Dubowitz et al., 2011; Sidebotham et al., 2001). The cross-site evaluation collects data on adult mental health and parenting attitudes to assess family functioning.

- **Depressive symptoms.** The cross-site evaluation measures adult depressive symptoms using the Center for Epidemiologic Studies Depression Scale (CES-D), a 12-item short form (Radloff, 1977). The CES-D is a screening tool assessing the presence and severity of depressive symptoms over the past week. Respondents are asked to rate how often each of the items (for example, "I was bothered by things that usually don't bother me") applied to them in the past week. Respondents with a score of 15 or higher are categorized as "severely depressed."
- **Parenting attitudes.** When parents have negative attitudes about parenting—in particular, when they have unrealistic expectations for their children—it can produce frustration and anger, and raise the potential for child abuse and neglect. The Adult Adolescent Parenting Inventory-2 (Bavolek & Keene, 1999) was developed to distinguish the parenting attitudes of parents who did and did not mistreat children. It has five subscales: expectations of children, parental empathy toward children's needs, use of corporal punishment, parent–child family roles, and children's power and independence. The cross-site evaluation used this measure to describe those attitudes about parenting and the degree to which primary caregivers expressed attitudes that put their children at risk of maltreatment.

c. Instruments to assess child well-being

The experience of maltreatment has comprehensive and lasting implications for children (Institute of Medicine & National Research Council of the National Academies, 2013). The RPG program seeks not only to maintain or increase children's safety and their permanency with their family, but also to improve their well-being. The standardized instruments that are used to assess child well-being include: (1) the Infant/Toddler Sensory Profile (ITSP) (Dunn, 1999, 2002), which measures sensory processing difficulties of children in RPG; and (2) the Child Behavior Checklist (CBCL), which measures children's emotional and behavior problems.

- **Children's emotional and behavior problems.** Children's emotional and behavioral problems are associated with caregiver substance use (Behnke & Smith, 2013), caregiver well-being, and parenting stress and skills (Neece et al., 2012). The cross-site evaluation used the CBCL to measure children's emotional and behavior problems, including

internalizing (for example, anxiety or depression) and externalizing (for example, attention or aggression) problems and total problems (a combination of the two former categories and the category of other problems). There are two versions of the CBCL—one for preschool-age children (ages 1.5 to 5.0) (Achenbach & Rescorla, 2000) and one for school-age children (ages 6 to 18) (Achenbach & Rescorla, 2001).

- **Sensory processing.** Sensory processing—the way the brain takes the information from the senses and turns it into appropriate behavioral responses—is one of the areas shown to be affected by prenatal substance exposure (Chasnoff et al., 2010). Children who have difficulties processing sensory information or responding to the information with appropriate behavior are considered to have sensory processing disorder. They often have difficulties performing everyday tasks and exhibit elevated emotional and behavioral problems and lower levels of adaptive social behaviors (Ben-Sasson et al., 2009). The cross-site evaluation used the ITSP (Dunn, 1999; 2002) to examine sensory processing difficulties of children in RPG. The ITSP identifies children who are over- or under-responsive to stimuli, both of which indicate sensory processing difficulties and can be detrimental to children's well-being. These children are characterized as being high risk of having a sensory processing disorder. The ITSP can be used with children whose ages range from newborn to 36 months.

2. Administrative data

In addition to the standardized instrument data, grantees obtained administrative data on a common set of child welfare and substance use treatment elements. Specifically, grantees obtained data on reported incidents of child maltreatment, removals from the home and subsequent placements, and adult participation in state-funded substance use treatment. Data on maltreatment and removal were available for all children in a case, and enrollment data on state-funded substance use treatment were available for the substance-using adult in the case for the year before program enrollment through the year immediately following enrollment.

- **Safety.** A key desired outcome for RPG projects is the safety of children involved in the child welfare system; that is, the absence of maltreatment. Project teams worked with state and/or local child welfare agencies to obtain child welfare data for all children served in their RPG projects. Data elements are:
  - Whether an enrolled child has a record with child protective services.
  - Information about the types of allegations of abuse or neglect reported (and whether the reports were substantiated) for children enrolled in RPG4, such as dates, maltreatment type (such as physical, emotional, or sexual abuse, or neglect), and the disposition of the allegation (such as substantiated, unsubstantiated, indicated, or reason to suspect).
- **Permanency.** As they did with safety data, grantees obtained from state and/or local child welfare agencies administrative data on permanency (removals from the home and foster care placements) about all children enrolled in RPG. These data provide information on whether a child has been removed from their home in a given period (for example, within the past year or before RPG enrollment). For those who have been removed, data show information

about the removal, including dates, where the child was placed, and whether the child was discharged—and, if so, when and why (such as reunification with parents).

- **Substance use treatment.** For all adults enrolled in RPG projects, grantees requested administrative data about their participation in publicly funded substance use treatment before, during, and after participating in RPG. Requested data elements included dates of service, substances used at admission and frequency of use, date of discharge, and reason for discharge (such as completing treatment or leaving against advice).

3. Data used in the report

The data used for this report are based on grantees' cumulative uploads of outcome data through March 11, 2022, for RPG4 and November 12, 2021, for RPG5 and RPG6.

B. Preparing the data

The data preparation steps for this report varied depending on the data source.

1. Preparing the standardized instrument data

The cross-site evaluation team used the scoring manuals for each instrument to create scale scores for each outcome. In most cases, the scale scores are a sum or average of responses to individual items. These sums or averages represent a composite, or an underlying construct of interest (for example, "externalizing behavior problems" is a construct measured by the CBCL).

The scale scores were then transformed into norm scores. The norm scores were obtained by comparing the observed scale scores to scores for demographically similar individuals in a normative sample (for example, comparing scale scores to scores for children of the same age and gender). The norm scores therefore allow for a comparison of the RPG sample of children and adults to a large national sample of typical adults or children, or a comparison population. In particular, they can reveal whether a child's or adult's scores on a given trait or attitude are better or worse than those of a hypothetical average individual in the normative group.

Tables G.1 (instruments to assess adults) and G.2 (instruments to assess children) present descriptive statistics for each construct assessed in all standardized instruments. The tables show the number of items contributing to each scale, the possible score ranges, and sample means and standard deviations, using all available data. The information in these tables can differ slightly from the information presented in Chapters II and VIII, because the analyses in those chapters used different criteria to determine who was in the sample.

These summary tables include Cronbach's alphas to illustrate the reliability of the standardized instrument constructs. Higher values represent measures that are more reliable assessments (that is, they have less measurement error) of an underlying construct. In general, both adult and child outcome measures represent internally consistent or reliable assessments of the underlying construct of interest.

In addition to creating scale and norm scores for each construct of interest from the standardized instrument data, the cross-site evaluation team placed individuals into risk categories based on their scores on the instruments, using definitions of risk articulated in the instruments' scoring manuals. The high-risk category reflects the group of children or adults who have elevated or extreme scores on the measure, which corresponds to concerning symptoms or behaviors captured by a given measure.

2. Preparing the administrative data

The cross-site evaluation team used three sources of administrative data to inform three outcome domains: (1) safety (maltreatment) data, (2) permanency (removal and placement) data, and (3) recovery (participation in state-funded substance use treatment) data. Fifteen grantees obtained safety and permanency data from their state and/or local child welfare agencies, and eight grantees obtained recovery data from state substance use disorder departments.

Specifically, grantees gave these organizations lists of individuals they had enrolled (either all children or enrolled adults, as appropriate), and asked the organizations to provide information on them. The organization then shared data about those individuals with the grantee if such data existed. The safety data returned to grantees contained information on the dates of maltreatment investigations, the type of maltreatment, and whether the report was substantiated. The permanency data returned to grantees contained information on dates of removal and placement into different settings, and whether a removal ultimately resulted in a permanent placement. The recovery data provided to grantees included information on dates of enrollment into substance use treatment and program completion (if applicable).

Using the administrative data, the cross-site evaluation team created person-level indicator variables for whether a given incident occurred in a particular period. For example, the team created indicator variables for whether a child had an incident of substantiated maltreatment in the year before RPG enrollment. The cross-site evaluation team created indicator variables for all administrative data outcomes and focused on (a) the one-year periods before and after RPG enrollment; and (b) lifetime for children (from birth to enrollment) and adults (from age 18 to enrollment) for the purpose of all administrative data analysis.

Table G.1. Descriptive statistics and reliability estimates for adult outcome measures

Measures	Instrument	Possible score range	Number of items	Program entry				Program exit			
				n	M (SD)	Reported score range	Cronbach's alpha	n	M (SD)	Reported score range	Cronbach's alpha
Depressive symptoms	CES-D	0–36	12	916	10.6 (8.6)	0-36	0.90	435	7.4 (7.6)	0-36	0.90
Parenting skills											
Inappropriate expectations for child	AAPI	1–10	7	922	6.1 (1.6)	1–10	0.68	423	5.8 (1.6)	1–10	0.67
Lack of empathy for child	AAPI	1–10	10	922	6.8 (1.9)	1–10	0.71	423	6.5 (2.2)	1–10	0.79
Values corporal punishment	AAPI	1–10	11	922	5.8 (1.7)	1–10	0.83	423	5.7 (1.6)	1–10	0.83
Treats child like an adult peer, not a child	AAPI	1–10	7	922	5.8 (1.9)	1–10	0.72	423	5.1 (1.8)	1–10	0.71
Oppresses child's independence	AAPI	1–10	5	922	6.0 (2.1)	1–10	0.49	423	6.1 (2.0)	1–10	0.46
Adult substance use											
Drug use	ASI	0–1	13	841	0.1 (0.2)	0–0.9	0.61	381	0.1 (0.1)	0–0.8	0.44
Alcohol use	ASI	0–1	6	850	0.1 (0.1)	0–0.8	0.74	379	0.0 (0.1)	0–0.6	0.59
Adult trauma symptoms	TSC–40	1–120	40	645	26.0 (18.9)	0–96	0.94	278	18.2 (15.1)	0–72	0.92

Notes: M = mean; n = number of individuals; SD = standard deviation.

Source: RPG administration of standardized instruments for adult outcomes, including data submitted through March 11, 2022, for RPG4 and November 12, 2021, for RPG5/6. Depressive symptoms were assessed using the Center for Epidemiologic Studies Depression Scale (CES–D); parenting skills were measured using the Adult Adolescent Parenting Inventory–2 (AAPI–2); adult substance use was measured using the Addiction Severity Index, Self–Report form (ASI–SR); and childhood/adult trauma symptoms were assessed using the Trauma Symptoms Checklist (TSC–40).

Table G.2. Descriptive statistics and reliability estimates for child well-being measures at program entry and exit

Measures[a]	Instrument	Possible score range	Number of items	Program entry				Program exit			
				n	M (SD)	Reported score range	Cronbach's alpha	n	M (SD)	Reported score range	Cronbach's alpha
Sensory processing:											
Low threshold raw score	ITSP 0 to 6 months	17–85	17	169	74.0 (6.8)	47–85	0.66	16	74.1 (6.9)	56–83	0.79
Low threshold raw score	ITSP 7 to 36 months	23–115	23	96	96.9 (10.3)	64–115	0.79	79	97.7 (11.1)	51–115	0.81
Emotional and behavioral problems	CBCL										
Emotional problems	CBCL_PS	29–100	36	174	51.3 (11.5)	29–81	0.88	82	49.1 (12.6)	29–83	0.92
Emotional problems	CBCL_SA		32	187	58.4 (11.9)	33–88	0.92	90	54.2 (11.9)	33–81	0.90
Behavioral problems	CBCL_PS	28–100	24	174	51.5 (11.2)	28–79	0.92	81	51.1 (11.3)	32–76	0.92
Behavioral problems	CBCL_SA		35	188	58.6 (12.6)	33–86	0.94	90	56.2 (11.2)	33–87	0.92
Total problems score	CBCL_PS	24–100	99	174	51.5 (11.8)	29–80	0.86	81	50.4 (12.8)	29–84	0.90
Total problems score	CBCL_SA		109	187	59.5 (12.6)	24–87	0.89	90	56.0 (12.4)	24–84	0.90

Notes: M = mean; n = number of individuals; SD = standard deviation.

Source: RPG administration of standardized instruments for measuring child well-being, including data submitted March 11, 2022, for RPG4 and November 12, 2021, for RPG5/6. Sensory processing was assessed using the Infant/Toddler Sensory Profile (ITSP), and emotional and behavioral problems were assessed using the Child Behavior Checklist Preschool (PS) or School Age (SA) forms.

C. Analytic approaches used to describe outcome data

1. Baseline analysis for Chapters II and VIII

For each measure of interest from the standardized instrument data, this report presents the mean and standard deviation of each outcome, along with the proportion of individuals in the high-risk category, as descriptive statistics in Chapters II and VIII. The benchmark approach in the body of the report uses nearly all available standardized instrument data (after excluding a small number of foster parent respondents from the analysis, because the analysis concentrates on the family of origin) and administrative data for focal children or recovery domain adults (RDAs) in the cases. The cross-site evaluation team also conducted sensitivity analyses with varying approaches to these inclusion criteria, and the results are similar even with more restrictive inclusion criteria for the analysis. (The upcoming section on sensitivity analyses has more information on the approaches and the robustness of the findings.)

For the administrative data, the cross-site evaluation reports the percentage of individuals who experienced a given incident in the year before RPG enrollment and during their lifetime. For example, the cross-site evaluation presents the percentage of focal children with substantiated maltreatment reports in a given year, using all available administrative data provided by grantees.

2. Comparing individuals with and without follow-up data for Chapter VI analyses

To understand whether individuals included in the pre-post change analysis differed from those who did not have follow-up data, the cross-site evaluation team compared the demographics and baseline measures for individuals with both baseline and follow-up data from each standardized instrument to those for individuals with baseline data only, for each of the standardized instruments. There were a small number of individuals with follow-up data who did not have baseline data; the analyses excluded them. To understand the degree to which the sample contributing to the pre-post analysis could be generalized to the broader RPG4 sample, analysts conducted independent t-tests to determine whether there were statistically significant differences between the two groups on demographics and baseline measures. Chapter VI summarizes these findings, which are covered in more detail here. The differences in these samples are shown separately for each outcome domain that uses standardized instruments: (1) substance use and adult trauma; (2) family functioning; and (3) child well-being.

a. Substance use and adult trauma

Recovery domain adults with and without standardized assessment data. Assessment data on RDAs were available for 896 and 645 adults for the ASI-SR and TSC-40, respectively; 41 percent had both baseline and follow-up data for the ASI-SR, and 42 percent had both baseline and follow-up data for the TSC-40. Tables G.3 and G.4 show the results of comparisons between individuals with both baseline and follow-up data and those without follow-up data.

The two groups were similar in most demographic characteristics except for some subcategories in race/ethnicity, income source, employment status, and relationship status (Table G.3). Adults without follow-up data were less likely than those with follow-up data to be white (TSC-40); more likely to be American Indian or Alaska Native, Asian, or Native Hawaiian or Other Pacific Islander (TSC-40); more likely to be Hispanic (ASI-SR); less likely to report a wage or salary as an income source (ASI-SR and TSC-40); less likely to report disability as an income source (ASI-SR); less likely to report another income source (ASI-SR); more likely to report no income source (ASI-SR); less likely to report full-time employment (ASI-SR and TSC-40); more likely to report not being in the labor force (ASI-SR); more likely to be single and never married (TSC-40,); and less likely to be divorced or separated (TSC-40).

For outcome measures at baseline, there were no significant differences between the two groups in severity of drug or alcohol use or in trauma symptoms (Table G.4).

Table G.3. Demographics for adults reporting on substance use who did and did not have follow-up standardized instrument data (ASI-SR, TSC-40)

Characteristics	ASI-SR			TSC-40		
	Adults with follow-up data	Adults without follow-up data	Difference in means	Adults with follow-up data	Adults without follow-up data	Difference in means
Average age in years (SD)	37.9	31.1	6.8	39.6	31.4	8.1
Gender						
Female	91	91	0.4	90	90	-0.8
Male	9	9	-0.4	10	10	0.8
Race						
White only	78	77	1.4	89	80	9.1*
Black only	8	9	-0.7	6	9	-3.0
American Indian or Alaska Native, Asian, or Native Hawaiian or Other Pacific Islander only	11	11	0.2	3	8	-4.1*
More than one race	3	4	-0.9	2	4	-1.9
Ethnicity						
Hispanic	2	6	-3.8*	3	7	-3.4
Non-Hispanic	98	94	3.8*	97	93	3.4
Lived in institutional setting at enrollment						
Institutional settings	25	27	-2.7	25	29	-3.2
Not institutional settings	39	38	0.4	39	37	2.2
Highest level of education	33	31	1.8	32	32	0.4
Some high school	3	3	0.5	3	3	0.6
High school diploma/GED	38	31	6.8	40	31	8.1
Some postsecondary education						
Bachelor's degree or higher	91	91	0.4	90	90	-0.8

Characteristics	ASI-SR			TSC-40		
	Adults with follow-up data	Adults without follow-up data	Difference in means	Adults with follow-up data	Adults without follow-up data	Difference in means
Income source						
Wage or salary	34	26	7.6*	36	28	8.2*
Public assistance	54	56	-1.3	58	61	-2.8
Retirement or pension	0	1	-1.1	0	1	-1.0
Disability	10	6	3.8*	9	6	2.8
Unemployment benefits	4	5	-0.8	4	5	-0.8
Child support	7	6	1.3	7	6	1.8
Child's benefits	4	3	1.0	4	3	1.1
Support from others	25	26	-1.0	30	29	0.9
Other	6	3	2.9*	3	3	-0.2
None	6	11	-5.2*	6	6	0.2
Employment status						
Full-time employment	20	15	5.3*	22	14	8.8*
Part-time employment	11	9	2.0	13	10	2.7
Self-employed	3	3	0.3	3	4	-1.2
Unemployed	30	24	5.9	23	27	-3.7
Not in the labor force	35	49	-13.4*	39	45	-6.5
Relationship status						
Single (never married)	59	63	-3.8	54	62	-8.1*
Married	16	15	1.4	15	17	-1.3
Divorced or separated	25	23	2.4	31	22	9.4*
Number of adults	**367**	**502**		**270**	**375**	

Notes: ASI-SR = Addiction Severity Index, Self-Report Form (McLellan et al., 1992), TSC-40 = Trauma Symptoms Checklist-40 (Briere & Runtz, 1989).

* Significantly different from zero at the .05 level, two-tailed test.

Source: RPG Enrollment and Service Log data submitted through March 11, 2022.

Table G.4. Baseline measures for adults reporting substance use with and without follow-up standardized instrument data

Baseline measure of substance use	Instrument	Adults with follow-up data	Adults without follow-up data	Difference in means
Substance use	ASI			
Drug use				
Percentage in high-severity category for drug use		24	29	-4.2
Alcohol use				
Percentage in high-severity category for alcohol use		10	8	1.8
Percentage in high-severity category for use of drugs or alcohol or both		31	33	-1.9
Adult trauma symptoms	TSC-40			
Percentage in high risk category	TSC-40	28	34	-6.1
Number of adults		**270-360**	**375-490**	

Notes: ASI-SR = Addiction Severity Index, Self-Report Form (McLellan et al., 1992), TSC-40 = Trauma Symptoms Checklist-40 (Briere & Runtz, 1989).

* Significantly different from zero at the .05 level, two-tailed test.

Source: RPG baseline administration of standardized instruments, including data submitted through March 11, 2022.

b. Family functioning

Primary caregivers with and without follow-up standardized assessment data. Data on primary caregivers were available for 922 and 916 adults for the AAPI and CES-D, respectively; 43 percent had both baseline and follow-up data for the AAPI, and 45 percent had both baseline and follow-up data for the CES-D. Tables G.5 and G.6 show the results of comparisons between caregivers with both baseline and follow-up data and those without follow-up data.

The two groups were similar in most demographic characteristics except for age, and some sub-categories in race/ethnicity, income source, and employment status (Table G.5). Compared with those who had follow-up data, adults without follow-up data were younger (AAPI,); less likely to be Hispanic (AAPI and CES-D); less likely to report a wage or salary as an income source (CES-D); less likely to report disability as an income source (AAPI, CES-D); less likely to report another income source (CES-D); less likely to report being employed full time (CES-D); and more likely not to be in the labor force (CES-D).

For outcome measures at baseline, there were no significant differences between the two groups in depressive symptoms or parenting attitudes (Table G.6).

Table G.5. Demographics for primary caregivers with and without follow-up standardized instrument data in RPG cases (AAPI, CES-D)

Characteristics	AAPI			CES-D		
	Primary caregivers with follow-up data	Primary caregivers without follow-up data	Difference in means	Primary caregivers with follow-up data	Primary caregivers without follow-up data	Difference in means
Average age in years (SD)	32.5	31.2	1.4*	37.2	30.9	6.3
Gender						
Female	93	92	0.9	91	92	-0.5
Male	7	8	-0.9	9	8	0.5
Race						
White only	78	80	-1.3	80	78	2.4
Black only	8	8	-0.3	7	8	-1.5
American Indian or Alaska Native, Asian, or Native Hawaiian or Other Pacific Islander only	11	9	1.7	11	10	0.3
More than one race	3	3	-0.1	2	4	-1.2
Ethnicity						
Hispanic	3	6	-2.9*	3	6	-2.9*
Non-Hispanic	97	94	2.9*	97	94	2.9*
Highest level of education						
Some high school	26	28	-1.7	26	28	-2.9
High school diploma/GED	37	38	-0.4	38	38	0.2
Some postsecondary education	32	32	0.2	32	31	1.1
Bachelor's degree or higher	5	3	1.8	5	3	1.6
Income source						
Wage or salary	31	28	3.2	33	25	7.5*
Public assistance	52	56	-3.9	52	54	-2.8
Retirement or pension	1	1	-0.4	1	1	-0.4
Disability	10	6	4.6*	10	6	3.7*
Unemployment benefits	4	6	-1.5	4	5	-1.0
Child support	6	6	0.1	7	6	0.9
Childs benefits	3	3	-0.4	3	3	0.9
Support from others	27	23	3.4	26	26	0.0
Other	5	3	2.0	6	3	2.7*
None	9	9	-0.2	8	10	-2.2
Employment status						
Full-time employment	18	16	2.3	20	14	6.0*

Characteristics	AAPI			CES-D		
	Primary caregivers with follow-up data	Primary caregivers without follow-up data	Difference in means	Primary caregivers with follow-up data	Primary caregivers without follow-up data	Difference in means
Part-time employment	10	9	0.5	11	9	2.1
Self-employed	3	3	0.5	3	3	0.1
Unemployed	28	26	1.9	27	28	-1.0
Not in the labor force	41	46	-5.2	39	46	-7.3*
Relationship status						
Single (never married)	60	63	-3.7	59	64	-5.1
Married	15	15	0.1	15	15	0.3
Divorced or separated	26	22	3.6	26	22	4.8
Number of adults	**398**	**524**		**409**	**507**	

Notes: AAPI = Adult Adolescent Parenting Inventory-2 (Bavolek & Keene, 1999), CES-D = Center for Epidemiologic Studies Depression Scale (CES-D), 12-item short form (Radloff, 1977).

* Significantly different from zero at the .05 level, two-tailed test.

Source: RPG baseline administration of standardized instruments, including data submitted through March 11, 2022.

Table G.6. Baseline measures for primary caregivers with and without follow-up standardized instrument data

Parent well-being and parenting	Instrument	Mean (SD)		Difference in means	Percentage of adults in high-risk category		Difference in means
		Primary caregivers with follow-up data	Primary caregivers without follow-up data		Primary caregivers with follow-up data	Primary caregivers without follow-up data	
Depressive symptoms	CES-D	10.3 (8.6)	10.9 (8.5)	-0.6	27	32	-5.1
Inappropriate expectations for child	AAPI	6.1 (1.5)	6.0 (1.6)	0.1	16	17	-1.0
Lack of empathy for child	AAPI	6.9 (1.8)	6.7 (2.0)	0.2	42	38	4.4
Values corporal punishment	AAPI	5.9 (1.7)	5.8 (1.8)	0.1	16	16	0.4
Treats child like an adult peer, not a child	AAPI	5.8 (1.8)	5.7 (1.9)	0.1	18	17	0.9
Oppresses child's independence	AAPI	6.1 (2.2)	5.9 (2.1)	0.2	30	24	5.7
Number of adults		**398-409**	**507-524**				

Notes: AAPI = Adult Adolescent Parenting Inventory-2 (Bavolek & Keene, 1999), CES-D = Center for Epidemiologic Studies Depression Scale (CES-D), 12-item short form (Radloff, 1977).

Source: RPG baseline administration of standardized instruments, including data submitted through March 11, 2022.

* Significantly different from zero at the .05 level, two-tailed test.

c. Child well-being

Focal children with and without follow-up data from standardized assessments. Data on children's well-being were available for 262 and 361 focal children for the ITSP and CBCL, respectively. Almost one-third (32 percent) of children with ITSP assessments had both baseline and follow-up data, and 37 percent of children with CBCL assessments had both baseline and follow-up data. Tables G.7 and G.8 show the results of comparisons between children with both baseline and follow-up data and those without follow-up data.

The two groups of children were similar with respect to their average age, gender, and ethnicity (Table G.7). However, in terms of race, focal children without follow-up data were more likely than those with follow-up data to identify as American Indian or Alaska Native, Asian, or Native Hawaiian or Other Pacific Islander only, according to ITSP data. In addition, focal children without ITSP follow-up data were less likely to be in a foster or group home.

For outcome measures at baseline, there were no significant differences between the two groups in sensory processing or emotional or behavior problem (Table G.8).

Table G.7. Demographics of focal children with and without follow-up child standardized instrument data (ITSP, CBCL)

Characteristics	ITSP			CBCL		
	Children with follow-up data	Children without follow-up data	Difference in means	Children with follow-up data	Children without follow-up data	Difference in means
Age by category						
Younger than 1	82	76	6.1	0	0	0.0
1 to 4	18	24	-6.1	41	38	2.5
5 to 8	0	0	0.0	32	28	4.3
9 or older	0	0	0.0	27	34	-6.8
Gender						
Female	54	57	-3.2	43	43	-0.0
Male	46	43	3.2	57	57	0.0
Race						
White only	83	72	11.6	81	83	-1.3
Black only	6	10	-3.4	6	5	1.5
American Indian or Alaska Native, Asian, or Native Hawaiian or Other Pacific Islander only	0	9	-9.2*	5	7	-2.4
More than one race	10	9	1.1	7	5	2.3
Ethnicity						
Hispanic	7	10	-3.0	3	8	-4.9
Non-Hispanic	93	90	3.0	97	92	4.9
Residence at enrollment						
Private residence	71	68	2.9	93	89	3.8
Foster or group home	2	0	2.4*	1	1	-0.1
Treatment facility, shelter, or correctional facility	27	31	-4.7	6	10	-3.7
Other residence	0	1	-0.6	0	0	0.0
Number of children	**84**	**178**		**132**	**229**	

Notes: ITSP = Infant/Toddler Sensory Profile (ITSP) (Dunn, 1999, 2002), CBCL = Child Behavior Checklist (CBCL) (Achenbach & Rescorla, 2001).

* Significantly different from zero at the .05 level, two-tailed test.

Source: RPG Enrollment and Service Log data submitted through March 11, 2022.

Table G.8. Child well-being at RPG enrollment for focal children with and without follow-up data from standardized instrument

Child well-being at baseline	Instrument	Mean (SD)			Percentage of children in high-risk category		
		Children with follow-up data	Children without follow-up data	Difference in means	Children with follow-up data	Children without follow-up data	Difference in means
Sensory processing	ITSP	n.a.	n.a.	n.a.	20	19	1.1
Emotional problems	CBCL	54.7 (12.4)	55.1 (12.2)	-0.5	27	25	2.7
Behavior problems	CBCL	56.3 (12.9)	54.5 (12.2)	1.8	34	25	9.2
Total problems	CBCL	56.2 (13.4)	55.3 (12.6)	0.8	32	28	4.2
Number of children		**132**	**228-229**				

Notes: ITSP = Infant/Toddler Sensory Profile (ITSP) (Dunn, 1999, 2002), CBCL = Child Behavior Checklist (CBCL) (Achenbach & Rescorla, 2001). n.a. = not available.

Source: RPG baseline administration of standardized instruments, including data submitted through March 11, 2022.

d. Summary of all comparisons of individuals with and without follow-up data

Individuals with and without follow-up data differed from each other demographically in several ways. Adults without follow-up data were less likely to report a wage or salary as an income source and less likely to say they were employed full time (these two measures were statistically significantly different across the two points for the reporters in both the differences in the recovery and family functioning domains). For outcome measures at baseline, there were no significant differences between the two groups in the recovery domain (severity of drug or alcohol use or trauma symptoms), family functioning domain (depressive symptoms, parenting attitudes), or child well-being domain (sensory processing or emotional or behavior problems).

D. Nonresponse weights for pre-post analysis for Chapter VII

To describe the changes in outcomes of those who received RPG services, the ideal approach would be to compare outcomes for the full population of eligible individuals enrolled in the RPG from baseline (program entry) to follow-up (program exit). The cross-site evaluation team could have used administrative data to conduct this analysis, which includes all eligible RPG participants enrolled in the projects that submitted the data (eligibility to be included in the pre-post analysis is defined as being enrolled for at least one year at the end of the grant period). However, the sample that has observed data on standardized instruments at both baseline and follow-up is unlikely to represent the full population of individuals enrolled in RPG. First, the percentage of eligible individuals with standardized instrument scores at both baseline and follow-up was relatively low, with response rates ranging from 17 to 38 percent across

instruments. Second, as shown in the tables in this appendix, those with and without standardized instrument data at follow-up differed on some demographic characteristics. Therefore, to reduce nonresponse bias for the outcome estimates, the cross-site evaluation used nonresponse weights to statistically adjust the analysis of the observed data. A description of the process for generating and using these weights follows.

Instrument-specific weights. The cross-site evaluation created separate nonresponse weights at the individual level for each standardized instrument. There are several reasons for creating individual-level instrument-specific weights. First, each instrument that measures child well-being does not apply to all children; for example, ITSP can be used only for children from birth to age 36 months. Second, not all grantees used the full battery of instruments examined in the cross-site evaluation. Third, focal children, primary caregivers, and recovery domain adults (when different from the primary caregiver) were each associated with a different set of standardized instruments. The variation in the population eligible for each instrument meant creating separate weights for each instrument. The variables used to calculate nonresponse weights were demographic variables; baseline measures of outcomes; and variables from baseline administrative data (safety, permanency, and recovery), which differ slightly for the focal children, primary caregivers, and recovery domain adults.

Procedure for computing sampling weights. There were five steps in creating and validating the weights.

1. Preparing the data. The first step in the weighting procedure was to prepare the data for the sample of interest. For each instrument, the cross-site evaluation team identified the subset of the participant sample (focal child, primary caregiver, or recovery domain adult) that was potentially eligible to complete the assessment at both time points. That is, the team identified the subset of participants who: (1) had been enrolled in RPG long enough for a follow-up assessment; (2) were age-eligible for both the baseline and follow-up assessments (this applied to the focal child outcomes); and (3) were enrolled in an RPG project that collected data using a given standardized instrument. A subset of grantees did not administer all standardized instruments.

For this subset of individuals eligible for assessment by a given standardized instrument, the cross-site evaluation team focused on a specific list of variables: (1) demographic characteristics; (2) administrative data; and (3) baseline and follow-up data from each instrument. Because there was a small amount of missing data for some demographic characteristics and for the baseline measures of the standardized instruments, the cross-site evaluation team used the multiple imputation procedure in SAS to impute any missing data at baseline. The imputation approach was informed by the nearly comprehensive demographic data and observed baseline scores, as well as complete administrative data at baseline. After imputation, each individual had complete information, either observed or imputed, for all demographic data, baseline assessments of the standardized instrument of interest, and administrative data at baseline.

2. Identifying predictor variables. The next step was to identify the appropriate set of variables associated with completing a follow-up assessment for a given standardized instrument. In addition to considering all variables observed at baseline as potential predictors, the cross-site evaluation team identified all two-way interactions in the pool of covariates that were potentially significant in predicting the response variable. They accomplished this using the chi-square automatic interaction detector (CHAID) algorithm (Kass, 1980). They implemented this step using a SAS procedure called HPSPLIT.

3. Estimating an initial nonresponse weight for the instrument. For each standardized instrument, the cross-site evaluation team conducted stepwise logistic regression to estimate each individual's propensity to complete the follow-up assessment. This analysis used as its dependent variable whether an individual had both baseline and follow-up data for a given instrument. The cross-site team used demographic variables, baseline administrative data, baseline standardized assessment scores, and any two-way interactions identified via CHAID in Step 2 as predictors of this outcome. Using the final model, the team estimated a propensity score for each individual (the predicted probability that the person would have both baseline and follow-up data for a given instrument). The inverse of this propensity score (based on the final model for respondents) was then used as the initial weight for the nonresponse analysis.

4. Adjusting the initial weight. The team refined the weights from Step 3 to better represent the eligible sample of interest. Although the inverse propensity score serves as a starting point for the weights, the sum of the weights for an instrument must equal the total number of eligible individuals, and the inverse propensity scores do not satisfy this requirement.

To make the inverse probability weight $w_{inv,i}$ sum to the full baseline sample size associated with each instrument measure, the cross-site evaluation team applied a simple ratio adjustment factor $\frac{n}{\sum w_{inv,i}}$ to the inverse probability weight for each respondent, where *n* is the full sample size, n_r is the number of respondents, and the ratio-adjusted weight is renamed as $w_{adj,i}$, such that

(1) $\sum_{i=1}^{n_r}(\frac{n}{\sum w_{inv,i}})w_{inv,i} = \sum_{i=1}^{n_r} w_{adj,i} = n$

After adjusting the ratio, the individual weights sum to the size of the intended population. However, in the process, a small number of observations ended up having extreme weights (either very small or very large), which can lead to large variances in sample estimates of interest. To address this concern, the cross-site evaluation team used a weight-trimming procedure to identify and reduce large weights. The procedure, which is also used in the National Assessment of Educational Progress (2021), compares each observation's weight relative to the average squared weight of all other observations in the sample, and adjusts all weights accordingly, effectively pulling extreme weights toward the sample average.

This iterative procedure eventually produces a revised or final set of weights without any outliers, in which the sum of all weights equals the size of the intended population of interest.

Among the six instrument measures, only one adult measure (AAPI) had a few sample members with weights that were slightly less than 1 after ratio adjustment and therefore required further adjustment. Specifically, the evaluation contractor set any ratio-adjusted weights less than 1 to equal exactly 1, and then redistributed the weights for the remaining cases such that the total weights summed to the full baseline sample size.

E. Analysis of change from baseline to follow-up

For standardized instrument analyses, the report presents baseline means and standard deviations, follow-up means and standard deviations, and a change score, which is the difference in means. The statistics calculated for all analyses of a given instrument included the nonresponse weights described earlier. The inferential assessment of whether the differences in the scores between baseline and follow-up differed significantly from zero (that is, the paired t-test analyses) included these weights.

The cross-site evaluation team used a comparable approach to report on the administrative data for focal children or RDAs in the cases. Chapter VII presents the prevalence of a given outcome (for example, incidence of maltreatment) in the pre-intervention year and the intervention year, as well as the change in the prevalence rates between these two periods (Table VII.3, Table VII.6, and Table VII.7). Again, the team used a paired t-test to assess whether the changes in individual categories were significantly different from zero. However, it was unnecessary to use nonresponse weights for the administrative data, given that there are complete data on these outcomes for the eligible sample. All inferential tests used a Type I error rate (alpha) level of 0.05 (two-tailed) to describe a result as statistically significant.

F. Benchmark versus sensitivity analyses

As noted, the main or benchmark approach for presenting RPG4 baseline statistics or pre-post change results used all available data for a given standardized outcome of interest and administrative data for the focal child or RDA. The cross-site evaluation tested the sensitivity of the observed results by:

a. Including all children or enrolled adults in the case for administrative data (include multiple children or adults in the case).
b. Limiting the sample to only individuals who had baseline assessments within a 30-day window around the enrollment date.
c. Limiting the sample to only the first instance of individual outcome measures, for the small subset of individuals who had outcome data in multiple cases, such as a focal child who was associated with two separate cases (for example, associated with two primary caregivers who were not living together).

d. In addition, the cross-site evaluation team assessed the extent to which the analysis of standardized instrument changes over time was sensitive to the use of nonresponse weights.

In all of these analyses, the findings from the sensitivity analyses were similar to the findings of the benchmark analyses, suggesting that the benchmark findings are robust. (These analyses were not performed for the RPG5 or RPG6 cohorts because they have only preliminary data.)

1. Baseline statistics

The findings from the sensitivity analysis about the baseline statistics were similar to the benchmark findings for the baseline analysis reported in Chapter II:

a. *Baseline administrative data for all children or adults in a case.* When the analysis of administrative data was expanded to include all children and adults in a case, the sample increased to about 112 percent for adults and 175 percent for children compared to the sample size for the benchmark analysis.

b. *Baseline standardized assessment within a 30-day window around the enrollment date.* When the analysis of standardized instruments was limited to individuals whose baseline measure was close enough to the enrollment date, about 85 percent of all baseline assessments were maintained in the analysis (range = 78 to 100 percent across all standardized instruments).

c. *First instance of individual outcome at baseline.* This analysis included 98 percent of the records used in the benchmark analysis (range = 95 to 100 percent across all standardized instruments).

In sum, this suggests that the approaches used to define the benchmark sample and for the baseline analysis in Chapter II did not play a substantive role in the interpretation of the findings, because the sensitivity results largely replicated the findings.

2. Pre-post comparisons

The sensitivity analyses for the pre-post comparison analyses were almost identical to the benchmark pre-post analyses reported in Chapter VI:

a. *Baseline and follow-up administrative data for all children or adults in a case.* When the analysis of administrative data was expanded to include all children and adults in a case, the sample increased to about 112 percent for adults and 165 percent for children compared to the sample size for the benchmark analysis. All contrasts had the same sign and same statistical significance as the weighted results in Chapter VI.

b. *Baseline and follow-up standardized assessments within a 30-day window around the enrollment date.* When the pre-post change analysis was limited to the subset of individuals whose baseline measure was close enough to the enrollment date, about 20 percent of observations were dropped (ranging from 18 to 26 percent across instruments). Almost all (94 percent) contrasts had the same sign and same statistical significance as the weighted results in Chapter VI.

c. *First instance of individual outcome at baseline and follow-up.* When the sample was limited to the first instance of assessments for individuals who were part of multiple cases, 99 percent of the records in the benchmark analysis were included in this analysis (that is, only 1 to 2 percent of records were in multiple cases, across instruments). Almost all (97 percent) contrasts had the same sign and same statistical significance as the weighted results presented in Chapter VI.

d. *Sensitivity to nonresponse weights.* In addition, the benchmark pre-post analysis that incorporated nonresponse weights (reported in Chapter VI) and a sensitivity analysis that ignored the nonresponse were quite comparable. Almost all (96 percent) of the weighted pre-post contrasts had the same sign or same statistical significance as the nonweighted results, and 91 percent of the weighted pre-post contrasts had both the same sign and significance as the nonweighted results.

Again, these sensitivity results suggest that the approaches taken to define the benchmark sample and the approach for the pre-post analysis did not play a substantive role in the interpretation of the findings. The benchmark results presented in Chapter VI appear to be robust relative to these alternate definitions of the analytic sample and analytic approach.

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