

# Improving Cross-System Care for Parental Depression and Early Childhood Developmental Delays

Depression affects millions of Americans each year. Untreated parental depression has potentially serious consequences for a parent’s well-being, his or her functioning as a parent, the family’s functioning, and the children’s healthy development. Children of depressed parents are more likely to experience social and emotional problems or delays in cognitive and social development, and develop long-term behavioral problems. In turn, a child’s developmental delays can heighten family stress, increasing the parent’s risk of depression and perpetuating a cycle that may affect both parent and child. Low-income families, in particular, face an elevated risk for falling into this cycle. Yet the relevant health care systems typically treat parental depression and child developmental problems separately, and thus may miss opportunities to coordinate care for both conditions and improve treatment and outcomes for families, parents, and children in concert.

## The *Helping Families Raise Healthy Children* Initiative

To address the often co-occurring issues of parental depression and developmental delays, a diverse group of community organizations in the Pittsburgh area undertook an effort to improve system capacity and care for families facing these dual challenges. This initiative—*Helping Families Raise Healthy Children*—began in 2009 under the auspices of the Allegheny County Maternal and Child Health Care Collaborative, a broad-based community coalition that has been operating since January 2002. The Collaborative has united a variety of organizations, including maternal and child health care providers, health care organizations, policymakers, and others to address concerns related to maternal and child health and the recognition that the problems require system-level change.<sup>1</sup>

<sup>1</sup> For this phase of the Collaborative’s work, the organizing partners included Community Care (a behavioral health organization in the Pittsburgh area), The Alliance for Infants and Toddlers (the Early Intervention Service Coordination Agency in Allegheny County for families of children, from birth to three years of age, who have developmental concerns), and RAND.

### Key findings:

- With its focus on parent-child relationship-based approaches, the *Helping Families Raise Healthy Children* initiative improved cross-system care for families at risk for parental depression and early childhood developmental delays.
- Providers and agencies from the early intervention and behavioral health systems collaborated to achieve high rates of screening, referral, and engagement in services.
- Through cross-system training and support, the initiative helped build system capacity for sustaining these improvements and improved outcomes for parents and children.

As part of the initiative, RAND researchers evaluated the implementation process and the initiative’s impact on relevant systems and participating families.

### Implementation: Screenings, Referrals, and Engagement in Treatment

Together with the Collaborative, the three organizing partners for the initiative developed protocols and procedures for implementing the initiative’s components of screening and identification, referral, and engagement in relationship-based services. The initiative employed several strategies to support implementation and achieve the desired changes. First, the project team established processes to screen and refer families at risk for depression.

This included selecting a screening tool, developing a cross-system referral protocol, and providing training and ongoing support to early intervention service coordinators

**This research highlight summarizes RAND Health research reported in the following publication:**

Schultz D, Reynolds K, Sontag-Padilla L, Lovejoy S, Firth R, and Pincus HA, *Transforming Systems for Parental Depression and Early Childhood Developmental Delays: Findings and Lessons Learned from the Helping Families Raise Healthy Children Initiative*, RR-122-CCBHO, (available at [http://www.rand.org/pubs/research\\_reports/RR122.html](http://www.rand.org/pubs/research_reports/RR122.html)), 2013.

on the screening and referral processes. Second, the initiative implemented cross-system trainings to improve providers' capacity to deliver care using a relationship-based approach, which emphasizes parents' and children's issues in the context of their relationship. Third, the initiative convened a learning collaborative for providers from the early intervention and behavioral health systems to support the integration of relationship-based care into practice. Fourth, the initiative conducted extensive outreach to existing and new partners in the community who would be identifying and referring families to early intervention based on the parent's depression risk. Fifth, the initiative attempted to reduce barriers to engagement in treatment by increasing the behavioral health system's capacity for providing in-home care. Finally, to ensure that these processes reflected the perspectives of providers and the targeted families, RAND researchers solicited input from a variety of stakeholders, including a family advisory council, health care providers, and early intervention service coordinators.

To assess implementation, RAND researchers collected data on the number of screenings, referrals, and participants engaged in services and compared these rates to benchmarks synthesized from other relevant studies that employed comparable populations. As shown in Figure 1, the initiative exceeded benchmark percentages in all three areas: 63 percent of parents involved with the early intervention system were screened; 62 percent of parents were identified as needing services or support received referrals; and 71 percent of those referred for services engaged in at least one session.

A closer look at the types of referrals shows that the most common type of referral directed caregivers to relationship-based early intervention services (Figure 2). Team-delivered in-home care (comprehensive services by a team composed of a mental health professional, a mental health worker, and linkages to other services as needed), in-home mobile

Figure 1. Implementation Results

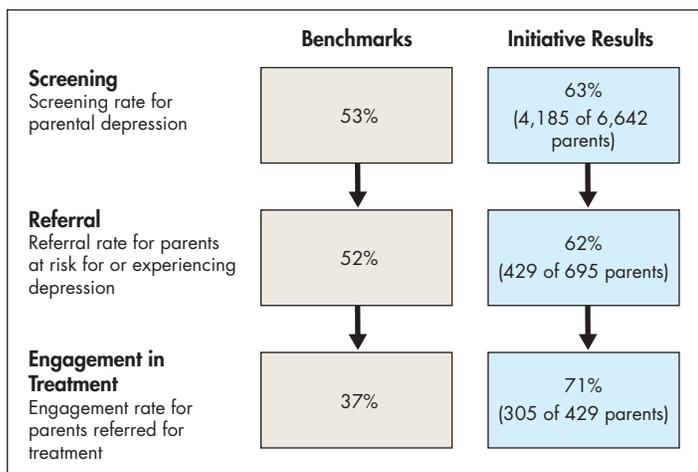
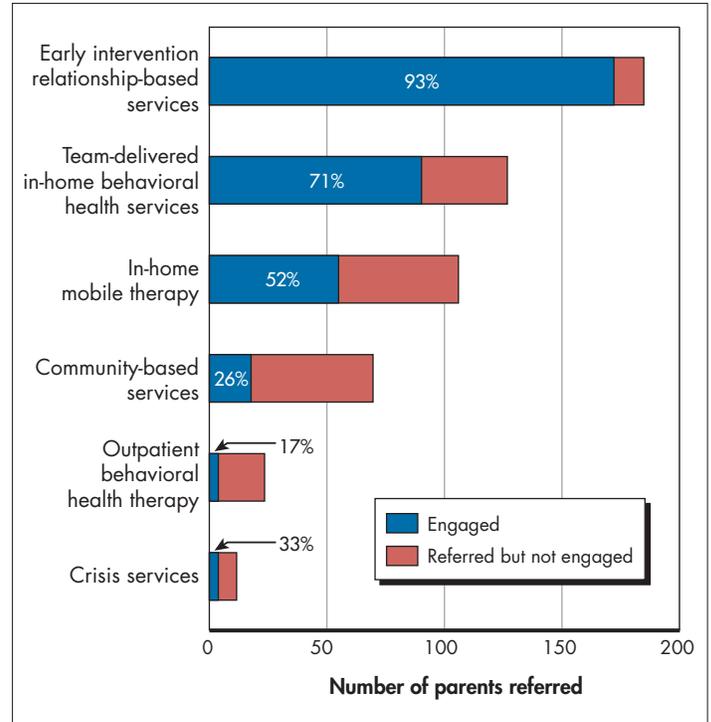


Figure 2. Engagement by Referral Type



behavioral health therapy, and community-based services were also common.

Parents referred for these services engaged in treatment at varying rates. Among parents referred for early intervention relationship-based services, engagement rates were especially high: 93 percent received at least one session (Figure 2). Engagement rates from other types of referrals varied, with services provided in the home faring better than those provided elsewhere.

**System-Level Changes: More Providers Were Trained to Refer Across Systems and to Deliver Relationship-Based Care**

At the system level, the initiative's goals were to develop processes for implementing the initiative's three components and to build capacity for the early intervention and behavioral health systems to improve communication, coordination, and cross-system provider training. To understand factors that aided implementation, the RAND team conducted focus groups with early intervention and behavioral health providers as well as telephone interviews with parents and pre-post surveys with providers who received training. Results of these focus groups, interviews, and surveys are highlighted below:

- **Screening and identification.** Development of appropriate tools and protocols for depression screening, the

provision of training and ongoing support for those conducting the screening, and efforts to engage the parent and child health care systems in making referrals to early intervention based on the parent’s depression risk all contributed to success in screening and identifying families.

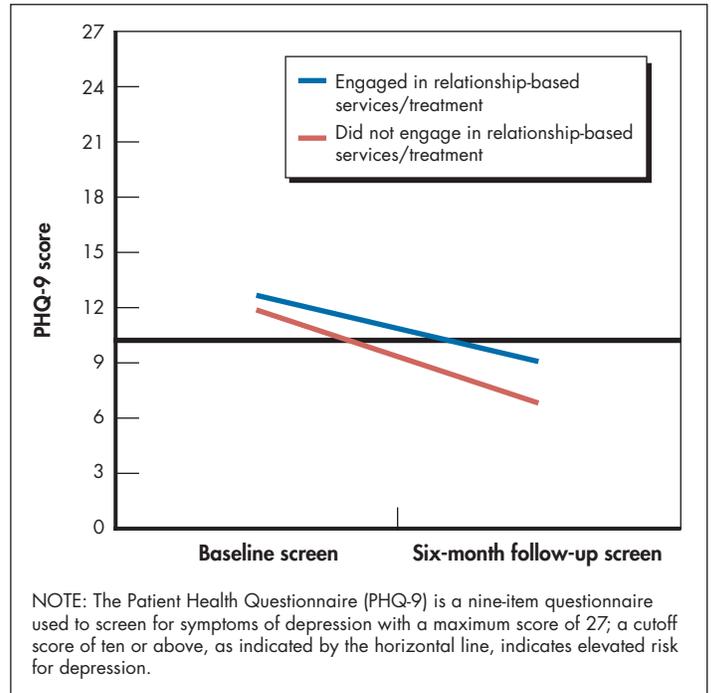
- **Cross-system networking and referrals.** Integrating referral processes into routine practice as well as training and ongoing support for those making referrals enabled knowledgeable and personal referrals matched to the needs of families. One practice in particular was cited as an improvement: the “warm transfer” referral that emphasizes directly connecting parents to behavioral health providers during home visits.
- **Engagement in services for at-risk families.** Providers who underwent training reported significant increases in knowledge about relationship-based care. Service providers also benefited from the ongoing learning collaborative. Further, the initiative addressed some of the typical barriers to engagement in behavioral health treatment (e.g., lack of transportation or child care, stigma) by providing the behavioral health services in the family’s home and considering cultural context and stigma when developing the processes for depression screening and referral.

**Outcomes for Parents at Risk for Depression**

Parents who screened positive for depression at baseline were given six-month follow-up screens to monitor their ongoing risk for depression and parental stress. Depressive symptoms were reduced both for parents who engaged in relationship-based services within the early intervention or behavioral health systems and for those who did not (Figure 3). In fact, the decline in depression scores was more pronounced for those who did not engage in services. This may be because participant engagement in services was not randomly assigned such that those who engaged in services recognized the long-term nature of their needs.

Thus, differences that appear to be due to engagement in services may be due to self-selection of participants into the “engaged” and “not-engaged” groups. Furthermore, nearly 60 percent of parents who initially screened positive for depression also reported high levels of parental stress. Among parents who completed the six-month follow-up, stress levels decreased, both for parents who engaged in relationship-based services within the early intervention or behavioral health systems and for those who did not. Overall, the reduction of stress and depressive symptoms for all families may reflect a gradual adjustment to identifying a child’s developmental delay, or the positive effect of coordination services received by all families served by the initiative.

**Figure 3. Participants Experienced Reduced Depressive Symptoms, Regardless of Whether They Received Treatment**



**Conclusions and Recommendations**

The *Helping Families Raise Healthy Children* initiative demonstrates the feasibility of improving cross-system care for parental depression and early childhood developmental delays. The Collaborative will continue efforts to improve care systems within Allegheny County and hopes to serve as a catalyst for other communities across Pennsylvania and throughout the United States to undertake similar efforts. To help generalize lessons from the initiative, the collaborative offered recommendations for state-level and agency-level decisionmakers interested in improving the parent and child health care systems in their jurisdictions (see Table 1 on the following page). Highlights of the recommendations include state-mandated universal screening for depression in the early intervention system and training for early intervention service coordinators in how to screen for depression using validated screening tools.

To further support local and state efforts to improve cross-system care, the RAND team developed “A Toolkit for Implementing Parental Depression Screening, Referral, and Treatment Across Systems” (available at <http://www.rand.org/pubs/tools/TL102.html>). The toolkit provides step-by-step recommendations for developing a cross-systems approach to parental depression, including screening for depression in early intervention, developing cross-system networking and referral processes, and providing relationship-based care within the early intervention and behavioral health systems.

**Table 1. Recommendations for Building on the Lessons from the Healthy Families Evaluation**

	<b>State policymakers can...</b>	<b>State and/or local early intervention agencies can...</b>	<b>State and/or local behavioral health agencies can...</b>
<b>To improve screening and identification of parental depression</b>	<p>Mandate universal screening for depression in the early intervention system.</p> <p>Add parental mental health challenges as a qualifying risk factor for early intervention at-risk tracking services statewide.</p>	<p>Add depression as a tracking category for early intervention services.</p> <p>Develop protocols for depression screening using a validated tool.</p> <p>Provide initial training and ongoing support on depression screening.</p>	<p>Support referral of infants and toddlers in families with a parent at risk for depression to early intervention services for developmental screening.</p>
<b>To enhance cross-system referral and coordination</b>		<p>Facilitate cross-system collaboration and communication among the early intervention, behavioral health, and parent and child health care systems.</p> <p>Develop cross-system referral protocols for families identified as needing behavioral health services and other supports.</p> <p>Provide initial training and ongoing support on cross-system referral protocols.</p>	<p>Facilitate cross-system collaboration and communication among the early intervention, behavioral health, and parent and child health care systems.</p> <p>Develop cross-system referral protocols for families identified as needing behavioral health services and other supports.</p>
<b>To increase engagement in services and treatment</b>		<p>Implement training for providers from both systems on the interconnectedness of parental depression and early childhood developmental delays.</p>	

Abstracts of all RAND Health publications and full text of many research documents can be found on the RAND Health website at [www.rand.org/health](http://www.rand.org/health). The RAND Corporation is a nonprofit research institution that helps improve policy and decisionmaking through research and analysis. RAND's publications do not necessarily reflect the opinions of its research clients and sponsors. RAND® is a registered trademark.



CHILDREN AND FAMILIES  
EDUCATION AND THE ARTS  
ENERGY AND ENVIRONMENT  
HEALTH AND HEALTH CARE  
INFRASTRUCTURE AND  
TRANSPORTATION  
INTERNATIONAL AFFAIRS  
LAW AND BUSINESS  
NATIONAL SECURITY  
POPULATION AND AGING  
PUBLIC SAFETY  
SCIENCE AND TECHNOLOGY  
TERRORISM AND  
HOMELAND SECURITY

The RAND Corporation is a nonprofit institution that helps improve policy and decisionmaking through research and analysis.

This electronic document was made available from [www.rand.org](http://www.rand.org) as a public service of the RAND Corporation.

## Support RAND

[Browse Reports & Bookstore](#)

[Make a charitable contribution](#)

## For More Information

Visit RAND at [www.rand.org](http://www.rand.org)

Explore the [RAND Corporation](#)

View [document details](#)

## Research Brief

This product is part of the RAND Corporation research brief series. RAND research briefs present policy-oriented summaries of individual published, peer-reviewed documents or of a body of published work.

## Limited Electronic Distribution Rights

This document and trademark(s) contained herein are protected by law as indicated in a notice appearing later in this work. This electronic representation of RAND intellectual property is provided for non-commercial use only. Unauthorized posting of RAND electronic documents to a non-RAND website is prohibited. RAND electronic documents are protected under copyright law. Permission is required from RAND to reproduce, or reuse in another form, any of our research documents for commercial use. For information on reprint and linking permissions, please see [RAND Permissions](#).