

## **Improving School Readiness: A Brief Report from the Palm Beach County Family Study**

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During the last 3 decades, considerable progress has been made in understanding the ecological and cultural context for children's development and, in particular, the harmful effects of poverty and its correlates on family functioning and child development. This knowledge has informed a variety of early intervention strategies to diminish the effects of poverty on children's development and readiness for school. In particular, comprehensive, integrated systems of health, education, and social services are increasingly viewed as a promising strategy for supporting healthy family functioning and child development in low-income, at risk families (Brooks-Gunn, 2003; Gomby, 2005; Olds, Kitzman, Hanks, et al., 2007; Reynolds, Ou, & Topitzes, 2004).

**Table 1. Overview of CSC Programs and Systems**

<b>Program/System Name</b>	<b>Program Description</b>
<b>Maternal Child Health Partnership (MCHP)</b>	A network of health and social services for high-risk pregnant women and mothers, which includes universal risk screening before and after birth; targeted assessment and home visitation; and coordinated services for families experiencing medical, psychological, social, and environmental risks that negatively impact pregnancy and birth outcomes
<b>Early Care and Education</b>	Initiatives to identify and provide services for children with developmental delays and to improve children’s school readiness, and a quality improvement system for child care programs.
<b>School Behavioral Health Programs</b>	Programs designed to improve children’s adjustment to school and enhance their school success by identifying social-emotional and other developmental problems and providing referrals and interventions to respond to these problems.
<b>Afterschool Programs</b>	A network of afterschool programs for elementary and middle-school youth supported by Prime Time, an intermediary working to improve the quality of school-based and community programs.

This growing body of evidence prompted the Children’s Services Council (CSC) of Palm Beach County, over a decade ago, to launch a long-term initiative to build an integrated system of care and support, with a focus on promoting the healthy development of children in the first 5 years of life. The primary goals—or sentinel outcomes—of the Palm Beach County system of care are to increase the number of healthy births, reduce the incidence of child abuse and neglect, and increase school readiness, as indicated by the number of children who enter kindergarten ready to learn (CSC, 2009). These goals assume that strengthening the system of community supports and services available to families will enhance their abilities to raise their children in healthy ways and, in turn, improve children’s development and well-being. With better family functioning and improved child health and development, it is further expected that children will be more ready for school; families will be better able to support them in school; and families will be less likely to need more intensive mental health, child welfare, and juvenile justice services.

To implement their goals, CSC and its partner organizations focused their system-building efforts in selected low-income communities—the Targeted Geographic Areas (TGAs)—that have higher than average rates of child maltreatment, crime, and other

factors that affect school readiness. As shown in Table 1, the system is made up of a range of programs and services to support children at different stages of their development.

This brief presents findings about the potential impact of the service system on improving children’s readiness for school from a longitudinal study of a sample of high-risk families living in the TGAs (see Box 1 at the end of this report). We describe, for the sample families, the characteristics that research indicates are likely to influence children’s school readiness—mothers’ and children’s health and medical care, parenting practices, educational expectations for children, and child care arrangements. Next, we present findings related to families’ use of a range of formal services during their children’s early years, which also might impact school readiness. We then look at the relationship between these factors and one indicator of children’s readiness for school, scores on the Florida Kindergarten Readiness Screen (FLKRS). As discussed below, we find that the most important factors affecting children’s school readiness are parenting practices, measured in the first year. Other influential factors include child’s health at birth, the home environment for literacy development (e.g., number of books in the home), and child care arrangement the year before kindergarten.

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## Mothers' Health

An overwhelming body of evidence suggests that good maternal health is essential to the early development, well-being, and school readiness of young children (e.g., Knitzer, Theberge, & Johnson, 2008; Mensah & Kiernan, 2010). CSC recognizes the importance of identifying and treating health risks and complications among mothers to prevent poor infant and maternal outcomes that can result without intervention. Although a majority (an average of 53%) of the study mothers described their general health as “very good” or “excellent” throughout the study, their reports were not as positive as those of national samples. For example, 69 percent of adults 20-49 years of age described their health as “very good” or “excellent” in a 2009 CDC survey. About one-fifth reported symptoms of depression during years 2 through 5 of the study, compared to about 5 percent in the national population, and between 12 and 17 percent of study mothers indicated high levels of parenting stress. About 7 percent had substantiated reports of child abuse or neglect in the first 2 years after their child’s birth, although these rates declined over time to 5 percent in year 3 and 2 percent in year 5.

In the final year of the study, more than half (55%) of the mothers did not have health insurance coverage for physical and psychological care. Only 19 percent of foreign-born mothers reported having health insurance, as compared to 75 percent of U.S.-born mothers. As a result, a quarter of our study participants reported going without routine medical care through most years of the study, a factor that may lead to late identification of physical and mental health problems that could affect child development.

Mothers’ emotional health was captured through their accounts about their employment and financial status, family living arrangements, reproductive health, children’s health, negative life events, and immigration status. Family living arrangements figured

prominently as an emotional stressor for many mothers. Disagreement about monetary and non-monetary contributions to the household, household rules, and household members’ behavior were particular sources of distress. For example, Ivana<sup>1</sup> described her anxiety about the constant conflicts that emerged in her household: “Every afternoon when my relative came home she would argue with me. And so I got sick! Because she argued with me, I felt very bad. I got sick.”

Importantly, mothers recognized the relationship between their emotional state and their ability to parent and were concerned about it. They also felt the need to suppress their own health problems to protect the health of their child. As Gloria told us, “There’s not a week that goes by that we’re not really tight. It’s really hard, but we work through it. We try our best to stay happy because if we’re upset, then our kids are upset. I don’t want them to be sad because we’re sad every day, or every week.”

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## Children’s Health and Medical Care

The connection between children’s birth weight and health, from birth onward, and their development and school readiness has been well-documented (Campbell, Pungello, Miller-Johnson, Burchinal, & Ramey, 2001; Child Trends, 2010; Reichman, 2005). Thus, the Palm Beach County system of care has made improved child health an essential indicator of success. It is encouraging that despite demographic risk characteristics, most children in the study were born healthy; 9 percent of the children had low birth weights compared to 8 percent for the county overall. By year 5, most mothers reported that the study children were in “good,” “very good” or “excellent” physical health, although a sizeable minority (19%) were said to have “special needs”—most often, asthma and other respiratory problems.

Mothers told us that their children’s health was a priority for them, and three-fourths of the children were

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<sup>1</sup> Names of mothers and children are pseudonyms.

covered by health insurance, typically Medicaid, and received regular well-child check-ups during the study period. As Flavia put it, “Sometimes my children are sick and we cannot manage without the Medicaid.” Although mothers encountered barriers in applying for Medicaid or obtaining medical care for their children, they were determined to overcome them. Laura, for example, would not let the lack of responsiveness of staff at a local clinic deter her: “If my child is sick I have to take him, whether they make a face or not, I will take him because I know I have to go.”

Indeed a recurring theme in interviews with mothers was that *the needs of their children come first* when it came to health care coverage and medical care and other basic needs, a view also reported by other researchers (Edin & Kefalas, 2005). As Amanda explained, “I am very satisfied so long as my children have Medicaid.” After unsuccessfully seeking Medicaid for herself, Miriam concluded, “Oh, it doesn’t really matter; I’d more prefer my kids have it, so I’ve been without Medicaid, or insurance.” Sandra said she would not bother with the recertification process for Medicaid for herself, but added, “it’s a lot different when it comes to him. I’m basically going to get help for him. I don’t really get help for myself. As long as my son can be seen by the doctor, I’m okay.”<sup>2</sup>

Medicaid’s enrollment process made it easier for mothers to obtain health insurance for their children in the postnatal period. Many mothers received Medicaid during their pregnancy, and that coverage “automatically” continued for the first year after their child’s birth. The initial application process was often facilitated by a social worker from a clinic, hospital, or social service agency. However, when it was time to recertify, mothers experienced various barriers to maintaining their coverage if not connected to a social worker. Barriers included access to transportation, financial costs (e.g., lost wages for taking time from work), location of services, language, low literacy

skills, inability to complete computerized application forms, lack of provider responsiveness, and program and paperwork requirements. Foreign-born mothers—who struggled with limitations posed by language, knowledge of services, and educational background—experienced these barriers much more than U.S.-born mothers. On the other hand, U.S.-born mothers, who were less likely to be married than foreign-born mothers, were more likely to complain about the need to file for child support in order to apply for Medicaid.

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## Parenting Practices

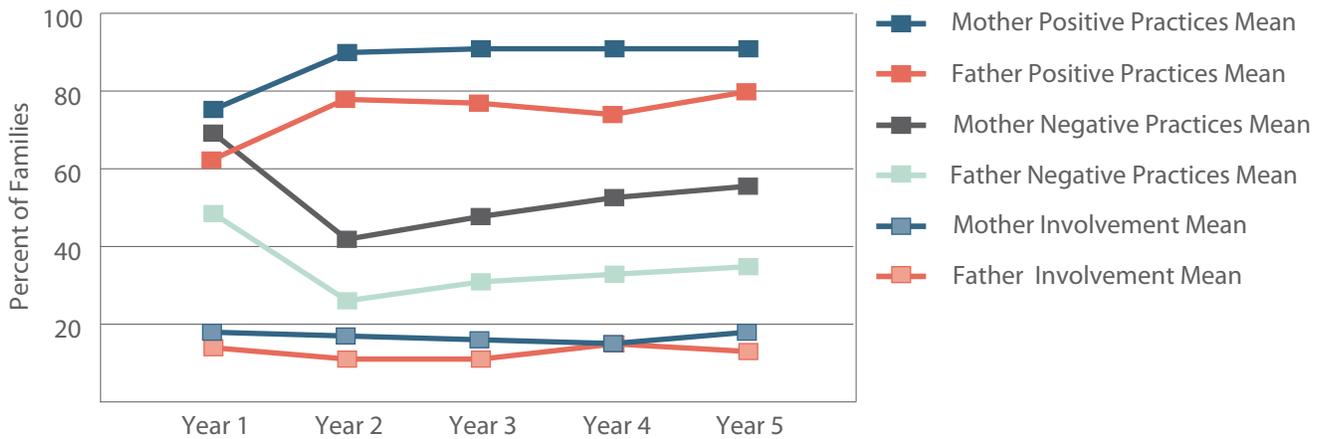
A large body of research indicates the importance of parenting for children’s development, especially in the early years, and for children’s school readiness. Being ready for school has been linked to particular home environments and practices that support literacy development (e.g., Raikes, et al., 2006; Snow, Burns, & Griffin, 1998). Influenced by family history, culture, and specific belief systems, these child rearing strategies play a pivotal role in children’s developmental progress and overall well-being. As a result, parenting practices, identified as either positive (praising children, reading stories, playing, engaging in outside activities, etc.) or negative (spanking, hitting, losing one’s temper, etc.) were an important component of our study. A majority (75%) of mothers in the study sample reported using a variety of positive parenting strategies, and at least 50 percent of fathers reportedly did as well.

Fewer mothers reported using negative parenting strategies, such as losing their temper more often than they liked (60%) or using hitting or spanking as a disciplinary strategy (25%). Interestingly, mothers reported less frequent negative parenting practices for their husbands/partners than for themselves. There was a lot of consistency in parenting practices over time (see Figure 1).

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<sup>2</sup> This view, however, might be a barrier to mothers taking care of their own health needs.

**Figure 1.**  
**Mothers' and Fathers' Parenting Practices Over Time (n=310)**



Interviews with a subsample of mothers when their children were between 1 and 3 years of age revealed more detail on their parenting practices, what they were teaching their children, and what they believed children should know before starting school. Mothers reported a wide range of mostly unstructured activities, with watching television and going outside to play at the park mentioned most often. At least half of the mothers considered television to be educational, sometimes to help children learn English. Almost as many mothers also reported reading with their children and doing arts and crafts activities with them. When asked about what they teach their children mothers usually talked about toilet training and, helping their children with cognitive skills—for example, learning letters and numbers, shapes, and words. Gloria explained, “I have a lot of stickers. I will take a paper and put all the ABCs [on it] and I will point at one and if they get it right, they will get something with the stickers.” Mothers mentioned these activities more often than activities related to motor development (e.g., drinking from a cup or using scissors). When asked what they believed children should know before starting school, mothers’ responses fell into four areas: toilet training, cognitive skills, language development, and social-emotional skills. Most often, though, they defined school readiness in terms of cognitive skills and knowledge (e.g., letters, colors, numbers, and shapes).

## Child Care Arrangements

Several studies have demonstrated a link between high quality child care and children’s cognitive, language, and social development (Barnett, 1995; Child Trends, 2010; National Research Council & Institute of Medicine, 2000; NICHD Early Child Care Research Network, 2000; Early, et al., 2007). Nonetheless, as our study mothers sought work or returned to the labor market, they discovered that high quality child care—in their view, care that translates into a loving, enriching, and safe environment—was not always attainable. Study data on their child care choices—whether home/family or institution based—indicated that they were shaped by a variety of factors.

As children age into toddlerhood and beyond, parents are presented with an increasing array of child care options, including center care and publicly funded pre-kindergarten programs. Although maternal employment was the strongest predictor of the use of nonparental child care, we also observed that parents were progressively more likely to consider nonparental care arrangements as their children turned 3 years of age and were becoming more communicative and independent. In the fifth year of the study—the year before kindergarten for the focal children—the most frequently reported type of child care arrangement for

children was center care, followed by care provided by relatives, friends, or neighbors (see Figure 2).

Child care arrangements were associated with a number of maternal characteristics, including race/ethnicity, nativity, education, employment, and income. Black mothers were significantly more likely (65%) to use center care compared to Hispanic mothers (46%). Foreign-born mothers did not differ from U.S.-born mothers in use of center care but were more likely to use friends or neighbors rather than relatives, to care for their children. This is perhaps because they had fewer family members who could provide care.

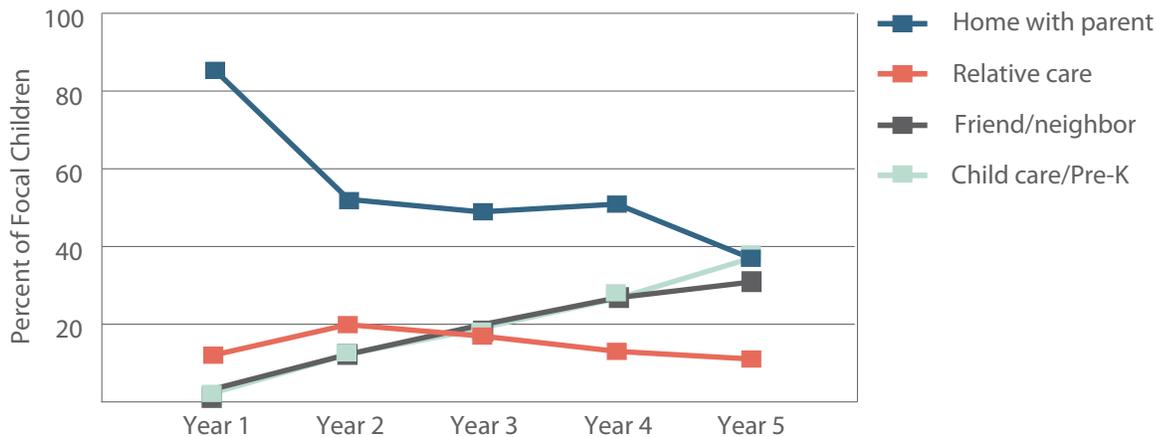
Cost was a primary factor in child care decisions and a barrier to use of formal care. Study mothers who received child care subsidies were twice as likely to have their child in center-based care, Head Start, or prekindergarten programs compared to mothers not receiving subsidies (82% versus 42%). Although there was a steady increase in use of out-of-home care as children aged, only a little more than a third of the study children were in a formal, center-based program the year before kindergarten. Many mothers, regardless of race/ethnicity or nativity, told us they desired but could not afford out-of-home educational experiences for their

children because they either did not qualify for a subsidy or were on a waiting list for one.

Although there were more low- or no-cost childcare options as children got older, such as Head Start and Florida’s Voluntary Pre-Kindergarten program, families’ choices of child care arrangements were also based on mothers’ individual preferences and the age and special needs (e.g., speech delays) of the child. Some mothers preferred to keep their children at home until kindergarten: “I think I want to take care of her until she is 5 years old,” Julia told us. “I will take better care of her.” Others, like Abigail, saw preschool as necessary for getting their child ready for school: “I don’t want to push her too much, I just want her to have understanding and not be behind. That’s why I sacrifice to send her to the daycare to teach her so when she goes to kindergarten she is prepared.”

Many mothers reported being more open to out-of-home care around their child’s third birthday or when they have more mastery of language and self-help skills. Sandra reported telling her son, “You’re 3 years old now. You know a lot. You go to the restroom on your own. You got to be around other kids. You have to learn more than what you know.”

**Figure 2.**  
Child Care Arrangements Over Time



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## Use of Formal Services

A fundamental goal of the service system in Palm Beach County is to enhance the availability and coordination of services and supports to at-risk families and children during the early childhood period. Four-fifths of study participants received maternal and child health services from the MCHP around the time of the birth of their child, typically between 3 months before and 6 months after the baby's birth. About one-quarter of mothers who qualified for intensive care coordination received services post-partum for an average duration of 9 months. Mothers who received more days of services were more likely to have particular risk characteristics and needs, e.g., having multiple children, having a child with special needs, and physical/mental health needs of their own.

Nearly all (94%) of the study mothers reported receiving help with basic family needs in year 5 of the study; health care, food assistance, dental care, and child care assistance were the most frequently received services. Service use changed over time. Although the two most frequently used areas—health care and food assistance—declined, service use in these areas remained relatively high throughout the study. Consistent with the changing needs of children and families as they grow, use of dental care assistance and child care subsidies increased in years 4 and 5. Another change was a striking decline in use of formal services for parenting information after the first year. One explanation is that parenting information is one component of MCHP services. Once mothers were no longer connected to this system, they were more likely to receive parenting information from informal rather than formal sources.

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## Child Development and School Readiness

The earliest years of life are critical for subsequent development. Several studies have shown that the developmental growth and delays that manifest as early as infancy can have a significant impact on a

child's readiness for school (Fagan, 2007; Moreno & Robinson, Isohanni, & Rantakallio, 2005; Taanila, Murray, & Jokelainen, 2005). Based on mothers' reports, most children appeared to be meeting basic developmental milestones in the areas of early literacy, social emotional skills, and communication. Mothers delighted in sharing stories of what their children could do at 2 and 3 years of age. For example, Maria proudly reported, "They know the whole alphabet, they know the numbers in English and Spanish, they know lots of the colors, they know the geometric shapes, things that 3 years olds don't know yet, they already know them. They are already making sentences and know how to answer if someone asks 'how old are you?'" Marlene told us, "I like that she is really learning and socializing with other children, and she's learning how to adapt with other kids, you know, she doesn't see any color in kids."

However, foreign-born mothers were less likely than U.S.-born mothers to report that their children had age-appropriate social-emotional, cognitive, and preliteracy skills. Such differences might be attributed, in part, to cultural differences in expectations of preschool children and/or differences in opportunities to develop and use these skills. These differences are also consistent with other research showing that the young children of low-income, foreign-born mothers have lower cognitive and language skills when compared to children of low-income, native-born mothers (De Feyter & Winsler, 2009).

In this regard, teachers' assessments of children's development on the Florida Kindergarten Readiness Screen (FLKRS) were mixed.<sup>3</sup> There were no significant race/ethnicity or nativity differences in teachers' ratings on the Early Childhood Observation Systems (ECHOS) portion of the test, a comprehensive overview of child development. However, children of foreign-born Hispanic mothers were not assessed as highly as other children on the Florida Assessment for Instruction in Reading (FAIR), a screen of literacy skills. In addition, study children did not perform as well as other children entering kindergarten in the Palm Beach County school district.

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<sup>3</sup> The FLKRS is administered in English and Spanish..

### **Box 1. The Palm Beach County Family Study**

A central question for CSC and other stakeholders in Palm Beach County concerns the effectiveness of the system. Is the service system functioning and being used by families as expected? Is it achieving its intended outcomes? To help to answer these questions, CSC commissioned Chapin Hall to conduct a longitudinal study to better understand the characteristics and needs of families the system is intended to serve, how they use services in and outside the system, and how service use is related to child well-being, family functioning, and children's readiness for school. In developing the study, we were guided by an ecological framework, which emphasizes the importance of different contexts for child development, including family, neighborhood, and the policies that affect the services and systems children experience.

The study used mixed methods that included analysis of administrative data on service use and key outcomes for all families with children born in the county during 2004 and 2005 until their children enter kindergarten; annual in-person and telephone interviews for 5 years with a sample of 531 mothers who gave birth to a child of the county during 2004 and 2005; and a 3-year qualitative study involving in-depth interviews and observations of 40 of these families. Mothers were recruited through two maternal child health programs that were part of the Maternal Child Health Partnership (MCHP).

To ensure we had enough mothers who were likely to use services, we over sampled mothers that the MCHP screened at risk around the birth of their child. As a result, mothers in our sample had more risk characteristics than other mothers in the county. For example, 17 percent were teen mothers, 72 percent were not married (although many were living with a partner), 41 percent had graduated high school, and 57 percent were foreign-born. Of the 531 mothers who participated in initial interviews soon after the birth of the focal child, 310 were interviewed all 5 years.

Results of statistical analyses of the factors that affected school readiness corresponded with the child development literature. There was evidence of the importance of parenting practices in children's development and readiness for school; mothers' parenting scores in year 1 were significantly and positively related to a range of developmental outcomes. These results suggest that effective interventions to improve parenting around the time of a child's birth might positively affect development. Also, children with low birth weights were less likely to have scores indicating they were ready for school than children with normal birth weights. In addition, center-based care and other formal child care arrangements (versus parental care) in the year prior to kindergarten appeared to have a positive impact on mothers' reports of child development and teachers' reports on the ECHOS.

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## **Conclusions and Implications**

These findings lead to the following conclusions about the factors that most affected child development and

school readiness.<sup>4</sup> First, positive parenting practices measured in the child's first year were the most important factor in their school readiness. Findings also indicate the importance of good birth outcomes, access to high quality early childhood programs, and homes that support literacy development. However, although new parents received MCHP services in the first year after their child's birth—services to guide their parenting and to help link them to other resources—their use of services to improve parenting or child development was very low. Also, only about a third of children attended early childhood programs the year before kindergarten.

These findings suggest several ways to improve services to support families in caring for their children and preparing them for school:

**Increase screening and identification of children with developmental delays and mothers with depression.** During the study period, MCHP Programs increased screening for depression for women who have given birth and followed up with another screening

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<sup>4</sup> Parenting scores also were stable over time.

around their children's first birthday. Even so, a one-time screening may not yield enough information on women's emotional and mental health over time. In our qualitative interviews, mothers opened up about their emotional problems only when trust between the interviewer and the respondent had been established—usually after their second or third interview. The timing of intervention and consistency of seeing a professional may contribute to enhance mothers' comfort in discussing their emotional experiences and needs.

**Improve the quality and effectiveness of parenting supports and education.** Given the important role of parenting in children's development, as well as the stability of parenting practices over time, there is a need to better understand early parenting practices and increase the availability and quality of interventions designed to improve them. Mothers with lower educational backgrounds or literacy skills, especially those for whom English is a second language, might need additional support to strengthen their ability to prepare their children for school during the preschool years.

**Improve access to and quality of early care and education.** Children cared for at home with their parents the year before kindergarten were less likely to be screened "ready" for kindergarten on the ECHOS portion of the FLKRS than children who attended a center-based program. Although there was a steady increase in use of out-of-home care as children aged, only a little over a third of the study children were in a formal, center-based program the year before kindergarten. Cost was a significant barrier; there was a strong relationship between having a child care subsidy and enrollment in a center-based program. Along with increasing access, it is also important to ensure that early care and education programs address the particular needs of children from both low-income and, especially, language-minority backgrounds.

**Increase efforts to help families stay involved in or become re-connected to needed services over time.** Service use by study families varied for many reasons, including perceptions of need, access to other

resources, difficulties with re-application processes, or actual improvements in their circumstances. The decline in the use of formal services for parenting information after the first year might reflect the lack of connections to other services and supports once mothers leave the MCHP. It also might reflect an increasing confidence in their parenting abilities as their children got older and a desire to be more independent in their parenting. Nonetheless, as children grow, new developmental stages are likely to bring new challenges for parents, questions about whether they are on track, and more openness to preschool or home-based educational programs. These periods might be "touch points" when parents are more receptive to services but the formal structures to help them engage or re-engage in services may not exist.

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## Related Publications

**Spielberger, J., Rich, L., Winje, C., Scannell, M., & Gouvêa, M.** (2012). *Supporting low-income parents of young children: The Palm Beach County Family Study Fifth Annual Report*. Chicago: Chapin Hall at the University of Chicago.

**Baker, J., Spielberger, J., Lockaby, T., & Guterman, K.** (2010). *Enhancing quality in afterschool programs: Fifth-year report on a process evaluation of Prime Time Palm Beach County, Inc.* Chicago: Chapin Hall at the University of Chicago.

**Spielberger, J., Baker, J., Winje C., & Mayers, L.** (2009). *Getting ready for school: Early Childhood Cluster Initiative of Palm Beach County Florida—Program implementation and early outcomes: Year 3 report*. Chicago: Chapin Hall at the University of Chicago.

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