

# Oregon's Healthy Start 2007-2008 Status Report



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January 2009



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*Informing policy, improving programs*



## ACKNOWLEDGMENTS

The Healthy Start Status Report would not be possible without collaboration and coordination from a number of agencies and individuals. First and foremost are the staff members at the Oregon Commission on Children and Families (OCCF), the local commissions, and local Healthy Start programs. Their continuing commitment to results-based accountability has made a statewide system for charting the progress of Healthy Start a reality. Many thanks also go to staff at the Department of Human Services, Office of Children, Adults, and Families, and staff at the Department of Human Services, Center for Health Statistics, for their help preparing data related to child maltreatment.

Staff members and volunteers spend long hours collecting information and “doing the paperwork.” We are particularly grateful for their dedication and commitment to the evaluation process. Further, this report would not have been possible without the interest and involvement of Healthy Start’s families. The families deserve special recognition for their willingness to cooperate and answer a multitude of questions. The input of staff, volun-

teers, and families at all of the Healthy Start sites is extremely valuable and deeply appreciated.

Special thanks to the 31 Healthy Start programs operating in the 34 following counties that were included in this year’s status report:

Benton County	Lane County
Clackamas County	Lincoln County
Clatsop County	Linn County
Columbia County	Malheur County
Coos County	Marion County
Crook County	Morrow County
Curry County	Multnomah County
Deschutes County	Polk County
Douglas County	Sherman County
Gilliam County	Tillamook County
Grant County	Umatilla County
Harney County	Union County
Hood River County	Wallowa County
Jackson County	Wasco County
Jefferson County	Washington County
Josephine County	Wheeler County
Klamath County	Yamhill County



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## Parents Tell Us “The Best Thing About Healthy Start is...”

This year, we received more than 1,300 comments from parents about the Healthy Start program. Here are just a few examples of what parents told us is the *“best thing about Healthy Start.”*

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- The best thing about this program is that no matter what problem you have or what information you need the Family Support Workers are always willing to help you.
  - Having a resource to go to instead of worrying or calling the doctor for every little thing.
  - That they have information in our language (Spanish), and bilingual workers.
  - I know I am getting support & the help I need to help be the best mother I can be.
  - The best thing I think is having a very kind visiting teacher come over and talk with us about how we can become better parents on raising our first child.
  - I don't have to go anywhere for information. It comes to me. I don't know what I would do without it.
  - My opinion matters—I am asked what I like, not just told what to do.
  - Healthy Start has helped me with how to help my child in his learning and development and I learn how to be a good mother.
  - I think the best thing is that you get to learn a lot. Especially if you're a first time mom. You learn so much about babies. You also don't feel alone you know someone is there to help you through.
  - Having one-on-one time with someone who fully supports you and your family is encouraging.
  - My healthy start person only pulls me up. I feel she has never put me down in any way.
  - I love how she (my Family Support Worker, or FSW) is with my child. She cares so much for us and I really need that.
  - The best is that they explain to me in ways that I could understand.
  - The love and support you get from your advocate (FSW). The information, activities, and compassion from Healthy Start are absolutely wonderful.
  - I feel very lucky and blessed to have Healthy Start in my life.
  - Having someone to build my confidence as a parent.
  - My (FSW) and how she is so helpful and so wonderful. I can't really describe how wonderful she is.
-



## EXECUTIVE SUMMARY

**H**ealthy Start is Oregon's largest child abuse prevention program, screening almost 10,000 first-birth families in 2007-08, and serving 3,235 high risk families with children ages 0-3 with Intensive Home Visiting Services. Healthy Start was created in 1993 with a mandate from the Oregon Legislature to provide universal, voluntary services to all first-time parents in the state of Oregon (ORS-417.795). The Healthy Start mission is to "promote and support positive parenting and healthy growth and development for all Oregon parents and their first-born children." The goals of Healthy Start are to:

1. Prevent child abuse and neglect among Healthy Start families; *and*
2. Improve the school readiness of children participating in Healthy Start.

To achieve these goals, Healthy Start uses the evidence-based Healthy Families America (HFA, see Rand, [www.promisingpractices.net](http://www.promisingpractices.net)) home visitation model, and works with first time parents during the critical early years of children's brain development. The program aims to reduce risk factors associated with increased incidence of child abuse and neglect and to promote the role of parents as their child's first teacher.

In June, 2007, Oregon's Healthy Start program was officially recognized as an accredited multi-site state system by Healthy Families America; only the sixth state in the nation to have achieved this level of accreditation.

Implementation and outcome data for the Healthy Start program are tracked through an ongoing evaluation conducted by an external evaluator, NPC Research. Although the evaluation does not collect information



that speaks to all of the HFA standards, this year found that at a statewide level, Oregon's Healthy Start program statewide met or exceeded HFA standards in almost every area in which evaluation data were available. Further, Healthy Start appears to be effectively engaging families with numerous risk factors in both screening and home visiting services. Outcome and implementation results from FY 2007-08 are summarized below, and more detailed information is provided in the full report (also available at: [www.oregon.gov/OCCF](http://www.oregon.gov/OCCF) and [www.npcresearch.com](http://www.npcresearch.com)). Healthy Start's results in preventing child maltreatment will be reported in a separate document scheduled for release in winter 2009.

### Outcomes for Children and Families

#### REDUCING RISK FACTORS FOR CHILD MALTREATMENT

Research shows that helping parents to improve their parenting skills and reduce their parenting-related stress is critical to reducing the likelihood of child maltreatment. Healthy Start's results in these areas compare favorably to other research with higher-risk families:

- Healthy Start workers report that after one year of Intensive Service (the home visiting component of Healthy Start), 85% of parents consistently engaged in developmentally supportive interactions with their children.
- 79% of parents reported that they have improved their parenting skills.
- 61% of parents reported a decrease in parenting-related stress from the time of the child's birth to the 6-month birthday, a time when parents generally experience highly elevated levels of parenting-related stress.

#### PROMOTING SCHOOL READINESS

Oregon's Healthy Start program is also extremely successful in helping parents to provide children with supportive early literacy environments, one of the keys to helping children to be prepared to enter and succeed in school:

- After 12 months 84% of parents were creating learning environments for their young children that were rated as "good" or higher by their home visitor, as indicated by The Home Observation for Measurement of the Environment Inventory (Caldwell & Bradley, 1994). This percentage is higher than results found in other, comparable populations.
- By age 1, 92% of Healthy Start parents reported reading to their children 3 times per week or more. In Oregon, the National Survey of Children's Health (2003) found that only 83% of parents in the general population read this often to their children, and rates are considerably lower for low-income families (67%) and Hispanic families (56%).

#### PROMOTING HEALTHY DEVELOPMENT

Oregon's Healthy Start program is highly successful in promoting positive health out-

comes for children and adults, and greatly exceeds Healthy Families America standards on these issues. After at least 6 months in Healthy Start:

- 98% of Healthy Start children had a primary health care provider, which greatly exceeds the Healthy Families America standard of 80%. Further, 72% of caregivers had a primary health provider.
- 93% of Healthy Start children were receiving regular well-child check-ups, compared to only 76% of all children ages 0-5 in Oregon (NSCH, 2003), and 84% of young children nationally (Child Trends, 2004).
- 95% of Healthy Start children had health insurance, compared to 85% of low-income children nationally (NSCH, 2003).
- 93% of Healthy Start's 2-year-olds were fully immunized, compared to only 78% of all Oregon 2-year-olds (Oregon ALERT Immunization Registry, 2006), and greatly exceeding the HFA standard of 80%. Nationally, only about 81% of children were fully immunized by age 3, with lower rates for poor children (76%, Child Trends, 2004).
- Almost all (93%) of Healthy Start children received regular developmental screening during FY 2007-08. Most (91%) of these children showed normal growth and development on their overall assessments. Of those parents whose children's assessments indicated a possible developmental delay, 96% received referral information and/or information to support their child's development in the area of delay.

#### SUPPORTING FAMILY SELF-SUFFICIENCY

Healthy Start's higher-risk families often need a variety of supports to help them

meet their basic needs, and frequently set and reach goals related to improving their self-sufficiency. After 6 months of Intensive Services, many Healthy Start families had been connected to services they needed. Of those families indicating each of the following needs:

- 85% were connected to housing assistance,
- 91% were connected to education assistance,
- 91% were connected to job training and employment services,
- 97% were connected to Temporary Assistance for Needy Families, and
- 77% were connected to dental insurance, at a time when dental coverage was cut under the Oregon Health Plan (OHP).

These services are critical to family stability, health, and self-sufficiency. Further, although a relatively small number of families needed services related to domestic violence or substance abuse, almost all families indicating a need in these areas were connected with services (96% and 100%, respectively).

Finally, about one-fifth (20%) of parents reported their family income situation had improved over the past 6 months, and 32% of families reported that at least one of the primary caregivers gained employment during the prior year.

## **Program Implementation & Service Delivery**

Healthy Start continues to increase the effectiveness of its system for contacting and offering services to first-time parents, reaching more families in FY 2007-08 than in any prior year:

- 9,897 first-birth families were screened in 2007-08, slightly more than in FY 2006-07 and more than in FY 2005-06.
- Only 7% of families declined to hear about Healthy Start at the initial point of contact. An additional 7% accepted the information about parenting and community resources from Healthy Start, but declined to participate in screening and 6% could not be reached after signing a preliminary release form. Of those screened, only 147, or 1%, declined to participate in the evaluation.
- Most screening (89%) took place prenatally or during the first 2 weeks after the baby's birth, exceeding the HFA standard of 80%. Early screening and engagement of families in services is critical to program success.

Healthy Start's screening and assessment system effectively identified families and children at greatest risk for negative outcomes:

- Of those families screened, 57% (5,208 families) screened at higher risk making them eligible for Healthy Start Intensive Services.
- Families screened by Healthy Start have more demographic risk factors, compared to Oregon's general population, suggesting that programs are targeting their screening resources on families most likely to be in need of Intensive Home Visiting Services. For example:
  - 53% of those screened were single mothers, compared to 32% in the general population (KIDS COUNT, 2004)
  - 9% of those screened were teen mothers (17 years and under), compared to 3% in the general population (KIDS COUNT, 2004)

- 23% of mothers screened had less than a high school education, compared to 20% in the general population (KIDS COUNT, 2004)



This year, because of a streamlined screening process, Healthy Start was able to offer Intensive Services to 3,137 eligible families, similar to 2006-07, and many more than in 2005-06 (3,388 families in 2006-07 and 1,175 in FY 2005-06). In all, Healthy Start served more Intensive Service families this year than in prior years—a total of 3,235 families. Six hundred and twenty seven (627) families (about 20% of those eligible) were not able to be offered Healthy Start home visiting because of funding restrictions leading to a lack of capacity to serve all the families needing and wanting services.

Because Healthy Start services are voluntary, a number of parents decline to participate in the Intensive Services component. The most frequent reason for not participating is that parents believe services are “not needed” (70% of those declining). Evaluation data supports the idea that parents who are less in need of Healthy Start are more likely to decline to participate. Analyses show that families with more total risk factors on the screening tool were significantly **more likely** to accept Intensive Services compared to those with fewer risk factors. Further, families were more likely to accept Intensive Services if they: (1) were teen parents; (2) had less than a high school

education; (3) were at risk for depression; (4) were unemployed; or (5) had substance abuse issues.

Families enrolled in Intensive Services are characterized by a number of risk factors. Specifically, compared to families who were screened and referred only, they were significantly more likely to be:

- single-parent households;
- Teen parents
- Unemployed
- Have less than a high school education
- Be at risk for depression
- Have marital/relationship problems
- Lack health insurance
- Have late or no prenatal care
- Have financial difficulties than families who were screened but did not participate in the home-visiting component.

Further, 68% of parents receiving home visits from Healthy Start reported having grown up in homes with at least one parent who had problems with substance abuse, mental health, and/or criminal involvement. Seventy-nine percent (79%) reported a lack of nurturing parents in their own childhoods, with personal histories ranging from the mild use of corporal punishment to more serious abuse and neglect.

The need for Intensive Home Visiting Services seems to be greater than the current capacity of Healthy Start to provide them:

- A total of 1,423 new Intensive Service families were able to be enrolled; however, 627 (20% of eligible families) could not be offered Intensive Services because program caseloads were full.

Finally, it is important to note that parents are extremely positive about the services that Healthy Start provides:

- Close to 100% of Healthy Start parents reported Healthy Start “helped a lot or a little” by providing parenting information. Parents also reported that their home visitor “helped a lot or a little” with obtaining basic resources (80%), dealing with emotional issues (77%), and encouraging the development of positive relationships with family or friends (81%). Parents reported that the services provided by the program are culturally competent (92%) and help them to build on their family’s strengths (86%).

## Conclusions and Looking Ahead

Outcomes for Oregon’s Healthy Start program are consistently positive across a variety of domains known to be important to supporting children’s healthy development and reducing the risk for child maltreatment. Further, the program is showing considerable success at the state level in meeting the standards set by Healthy Families America, thus ensuring home visiting services are consistent with evidence-based best practices. The state’s investment in accreditation has paid off in greater consistency and quality of services across the state, although variability in both process and outcome indicators suggests that there continues to be room for improvement. Research on home visiting programs shows these services *can* work; however, the quality and intensity of services must be held at high levels. During 2007-08, Healthy Start programs continued to engage in ongoing monitoring and quality assurance efforts. The success of these efforts is reflected in this year’s process and outcome data. OCCF staff and NPC Research continue to monitor program quality using both the HFA standards and the Oregon Healthy Start Service Delivery Performance Indicators. Continued technical support and assistance to the local program sites will help

ensure consistency in implementing these standards so that all of Oregon’s children can have a “healthy start.” However, additional funds will be needed in order to reach a larger proportion of eligible families with Intensive Home Visiting Services. This will be particularly challenging in the upcoming biennium, which is likely to involve fiscal challenges.

Home visiting services that are delivered in conjunction with other community supports such as specialized services for serious issues (e.g., substance abuse, domestic violence, mental illness), high quality daycare or preschool, early intervention, health care providers, and other resources are generally acknowledged to create the best outcomes for children. As the state’s largest consistent screening and identification system, Healthy Start plays a key role as a common point of entry into early childhood, parenting, and other services for families. Strengthening the role of Healthy Start in being able to consistently identify families and children at risk can benefit the state early childhood system as a whole by eliminating duplicative screening processes and streamlining referrals. This screening process could be strengthened even further if it was expanded to additional families, and if additional community partners, especially hospitals and medical facilities.

However, it is important to recognize that Healthy Start cannot be “everything for every family” and as such can sometimes be most effective by helping families access an array of community based services. In this area, strengthening the skills of Healthy Start workers in identifying serious family issues such as domestic violence, mental health, and substance abuse may be important. However, identification is only a first step; success for these families relies on whether Healthy Start can successfully connect families with needed resources. Community-wide work in building collabo-

rations to provide these services to families, as well as significant investment in resources for mental health, substance abuse, and other critical issues is needed. This effort will require widespread backing for an effective system of supports for children and families, within which Healthy Start can play an important, but not isolated, role.

Overall, data collected for this evaluation documents that Healthy Start provides effective services to prevent child maltreatment and support school readiness to Oregon's highest risk children and families. Healthy Start programs continue to demonstrate positive outcomes for high risk families by supporting the development of positive home environments, early literacy activities, health care, and positive parent-child interactions, all of which are critical to prevention of child abuse. Continued support for Healthy Start's effective screen-

ing, referral, and intensive home visiting component is critical for supporting Oregon's children in their most vulnerable early years.

As 2009 begins, the economic climate in Oregon suggests that the need for Healthy Start and other support services for the youngest children and their families will increase, while state funding to meet this need may not be readily available. During tight economic times, it is important to consider the significant long-term cost savings that can be attained through investments in effective prevention programs, like Healthy Start (Rolnick & Grunewald, 2003). Oregon's investment in its youngest children, and in prevention, has the potential to provide lasting benefits if such investments are continued through the current economic downturn.



## HEALTHY START OF OREGON STATUS REPORT 2007-2008

In 1993, the Oregon Legislature created the Healthy Start program with a mandate to provide universal, voluntary services to all first-time parents in the state of Oregon (ORS-417.795). The Healthy Start mission is to “promote and support positive parenting and healthy growth and development for all Oregon parents and their first-born children.” Healthy Start operates on the research-based premise that while all new families can use information, education, and support when a baby is born, individual families differ in the type and intensity of support that is needed. Thus, Healthy Start strives to offer all first-time parents a range of services appropriate to their needs, ranging from information and educational materials to longer-term, more Intensive Home Visiting Services that continue throughout the early childhood years.

### Healthy Start Goals

Healthy Start helps to build an early childhood system to nurture all families and children. It accomplishes this objective by systematic identification of all first-birth families, providing information and short-term support to all lower-risk families, and providing parenting education and family support through longer-term home visitation to higher-risk families.

The long-term goals of Healthy Start are to:

1. Prevent child abuse and neglect among Healthy Start families; *and*
2. Improve the school readiness of children participating in Healthy Start.

To do this, Healthy Start builds on research that shows that home visiting is most effective when services are provided to families most at-risk for negative child outcomes and when high-quality intensive services are pro-



vided to families for a period of several years.

Using the Healthy Families America (HFA) home visitation model, Healthy Start works with first time parents during the critical early years of children’s brain development. The program aims to reduce risk factors associated with increased incidence of child abuse and neglect and to promote the role of parents as the child’s first teacher. Home visitors known as Family Support Workers (FSWs) coach first-time parents to help them develop warm, sensitive, and responsive parenting styles that establish a foundation for positive child development and school readiness. In doing so, the program aims to reduce child abuse and neglect and to prevent costly long-term foster care placements.

Healthy Start FSWs provide information to parents about age-appropriate expectations for children’s development, dealing with developmental and behavioral challenges, effective discipline and positive guidance, and healthy lifestyles. Workers implement a variety of research-based home visiting curricula focused on supporting child development and facilitating strong parent-child attachment. Parents as Teachers is the primary curriculum used by most programs. Additionally, FSWs work with parents to make sure that the family is safe and stable, that families are connected with a medical home, that children receive regular well-child check-ups

and timely immunizations, and that families have health insurance coverage. These activities promote preventive health care, helping to offset more costly emergency room and acute care services.

Together, the wide variety of services provided by Healthy Start home visitors helps to ensure that children are ready to succeed in school by promoting children's healthy physical, cognitive, and social/emotional development. By empowering and supporting parents to be their child's first teacher, the program strives to put the family on a positive trajectory to be able to support their child effectively through the child's school years. Healthy Start's ongoing program evaluation documents this broad array of outcomes to make sure that the program is meeting its intended objectives.

## The Healthy Families America Model

In June 2007, Oregon's Healthy Start program was officially recognized as an accredited multi-site state system by Healthy Families America. Receipt of accreditation was the culmination of over two years of intensive work to develop and implement over 200 research-based quality standards across all of Oregon's Healthy Start programs and the central administration office at the Oregon Commission on Children and Families (OCCF). To achieve accreditation through HFA, all programs must submit extensive documentation showing that they are in alignment with accreditation guidelines. Next, a random sample of 13 sites received 2- to 3-day site visits from HFA national reviewers. Additionally, the program's central administration received a site visit and a detailed review of their training, technical assistance, evaluation, quality assurance, and administrative systems.

HFA accreditation requires that both local programs, as well as the central administration, demonstrate the use of a comprehensive

set of research-based program practices, including evidence-based home visiting procedures, rigorous training and supervision supports, and effective program management and administration processes. Oregon was the sixth state-level multi-site system to be accredited by HFA. There are over 400 individually accredited programs nationally.



Healthy Start programs are locally administered by a variety of community agencies, including county Health Departments and nonprofit child and family-serving agencies. All programs provide screening and basic information about pre and post-natal care to first birth parents. Screening is done using the research-based New Baby Questionnaire (NBQ), a 10-item tool designed to measure key risk factors associated with child maltreatment and other negative family and child outcomes. Screening occurs in a variety of contexts, including health clinics, doctor's offices, and hospitals. The NBQ is designed to be completed either by Healthy Start staff or volunteers, or by parents themselves. The



universal screening service provided by Healthy Start is a unique feature of the Oregon model, and allows a non-intrusive opportunity to contact a large number of families to identify risks and provide information and referral to available community services.

After screening, Healthy Start staff or volunteers score the NBQ to determine whether the family is eligible for Intensive Services, the home visiting component of Healthy Start. During FY2007-08, families were considered eligible if they scored positively on any two risk factors or either substance abuse or depression alone. Local programs can also include additional eligibility criteria if the number of families needing services outstrips program capacity at current funding levels.

Families who are enrolled in the Intensive Services component of Healthy Start may receive services until the first-born child is three years old (in a few programs, children are served until age 5). Home visiting services follow the research-based HFA model, which includes over 200 program performance standards related to 11 critical home visiting program elements. The critical elements require that programs:

1. Initiate services prenatally or at birth.
2. Administer standardized screening and assessment.
3. Offer voluntary services and positive outreach to families.
4. Offer home visiting services intensively with well-defined criteria for increasing or decreasing the intensity and duration of services.
5. Provide culturally sensitive services and materials;
6. Provide services that support the parents, parent-child interactions, and child development;
7. Ensure all families are linked to needed community services.

8. Ensure staff caseloads are adequate and do not exceed HFA guidelines, in order to provide high quality intensive services.
9. Hire staff with appropriate personal characteristics needed for culturally appropriate home visiting.
10. Ensure staff receive high-quality training in a variety of topics specific to their role, both initially and throughout their home visiting careers.
11. Ensure effective ongoing supervision of all staff.

Additionally, HFA requires that the program is governed and administered in accordance with principles of effective management and ethical practice.

A team comprised of state-level Healthy Start/OCCF staff, contracted technical consultants, and evaluators from NPC Research work together to provide technical support and quality assurance to ensure that all of Oregon's Healthy Start programs are in compliance with these critical elements.

## **Overview of HFA & Related Home Visiting Program Research**

A growing body of evidence suggests that when properly implemented, accredited HFA programs have positive effects for both parents and children across a number of outcome domains. Outcomes in the parenting domain (e.g., improved parenting skills, reduced parenting stress, improved parent-child relationships and attachment) have been the most consistent (Harding, Galano, Martin, Huntington, & Schellenbach, 2007), a finding that is consistent with the underlying conceptual model of most home-visiting programs. Home visiting programs tend to focus on changing parent behavior as the primary route for supporting children's development. This is in contrast to programs that rely on a primarily center-based model (such as Head Start or Perry Preschool), which provide less

direct parenting support and which focus on having staff work with children in out-of-home environments. Research suggests that while both models can be effective, home visitation programs that focus on parents may lead to strong long-term outcomes. For example, the national evaluation of Early Head Start found that programs using a home visiting model exclusively had fewer impacts at age three than programs using either mixed models or center-based models, but showed the strongest outcomes several years later when children were entering kindergarten (Love et al., 2002). Similarly, Olds and his colleagues have shown that high-quality home visitation can lead to positive long-term outcomes with significant cost savings (Olds, Eckenrode, Henderson, Kitzman, Powers, Cole, Sidora, Morris, Pettit, & Luckey 1997).

To date, at least 33 experimental and quasi-experimental studies of the HFA model (not all accredited HFA sites) have been conducted. Results from these are detailed in Harding, Galano, Martin, Huntington, & Schellenback (2007) and summarized in Table B. Generally, as can be seen in Table B, the clearest positive outcomes for the HFA model are in the areas of improving parenting skills and preventing child maltreatment and

severe and harsh discipline. While positive health and maternal life course outcomes have been found in some studies, fewer studies have examined these outcomes and the

pattern of effects is more mixed. This variability is not surprising given that this review includes both accredited and non-accredited HFA programs, and that program models differ in a number of ways, including curriculum content, edu-

cational requirements for staff, and target populations.

The strongest evidence that accredited HFA programs are effective in reducing the risk of child maltreatment comes from a New York study of more than 1,100 parents who were randomly assigned to either the HFA program or a control group (Mitchell-Herzfeld, Izzo, Greene, Lee, Lowenfels, 2005). This study found the HFA model to be effective in improving parenting and child outcomes (Mitchell-Herzfeld et al., 2005), and, in particular, at reducing parents' levels of harsh/severe parenting, often used as a proxy measure for child maltreatment. Based on the results of this and other rigorous studies, HFA is now officially listed as an evidence-based promising practice (Rand, [www.promisingpractices.net](http://www.promisingpractices.net)).

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**“Thank you [Healthy Start] for everything. Now that me and my son are safe, I get a chance at a better life.”**

**– Healthy Start Parent**

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**Table A. Summary & Overview of HFA Outcome Studies**

<b>Outcome Area</b>	<b>Number &amp; type of study</b>	<b>Key findings from HFA evaluations</b>
<b><i>Parenting</i></b>		
Parenting attitudes	4 randomized clinical trials (RCTs) 6 comparison group studies	Seven found HFA parents improved more in parenting attitudes compared to controls One found significant improvements only for teen parents and non-depressed parents Two found no differences
Parenting stress	5 RCTs 3 comparison group studies	Two found significantly less stress among HFA parents Six found no differences
Home environment	6 RCTs 5 comparison group studies	Nine found HFA parents scored higher on the HOME Two found no differences
Parent-child interaction (NCAST)	6 RCTs	Four found significantly greater improvement among HFA parents, especially for dimensions related to parent sensitivity and responsiveness Two found no differences
<b><i>Child Maltreatment</i></b>		
Parent self-report (severe/harsh parenting; psychological aggression)	4 RCTs	Three found less severe/harsh parenting and/or psychological aggression One found impacts only on a few select self-report items
Substantiated maltreatment reports	6 RCTs 4 comparison group studies	One RCT found a marginally significant reduction in abuse; 5 found no significant differences Three comparison group studies found lower rates among HFA families. Eight studies compared HFA rates to general community rates; seven of these found lower rates for HFA families
<b><i>Child Health and Development</i></b>		
Positive Birth Outcomes	2 randomized clinical trials (RCTs); 2 comparison group/quasi-experimental	Fewer birth complications (1 study) Fewer low birth weight (3 studies)
Rates of Breastfeeding	2 RCTs; 2 comparison group/quasi-experimental	Increased rate of breastfeeding (2 studies) Increased length of breastfeeding (1 study)

Outcome Area	Number & type of study	Key findings from HFA evaluations
Medical Home	4 RCTs	High rates of medical homes but no significant differences from control families
Immunization rates	6 RCTs  8 studies comparing HFA to community rates	No significant differences between program and control in RCTs All 8 find higher rates among HFA families
Child Development	5 RCTs  3 comparison group studies	2 RCTs found positive impacts on cognitive development 2 RCTs & 2 comparison studies found positive impacts on overall development
<b>Maternal Life Course</b>		
Subsequent births	4 RCTS	One found fewer subsequent pregnancies, but only among white parents.
Economic self-sufficiency	5 RCTs	One found positive impact on mothers' education Three found no effects on education or employment One found positive impact on mothers' income
Social Support	7 RCTs 6 comparison group studies	No studies found impacts on informal support received from family and friends Three studies found impacts on support received including both formal and informal sources
Depression	5 RCTs	One found significant reductions in number of mothers with clinical depression One found greater decrease in depression for Healthy start mothers for first 2 program years Two found no differences

Note: Information excerpted from Harding et al., 2007

## Healthy Start Program Description and Context FY 2007-08

Following two years of significant budget reductions to the Healthy Start program, funds were restored to slightly less than previous levels by the 2007 Legislature. During 2007-08, these restored funds helped programs to strengthen their alignment with HFA standards, and to rebuild service capacity.

Some programs that had previously reduced staff were able to slowly restore some direct-service positions, requiring substantial investments in training and supervision. State Healthy Start staff focused on working with programs to improve performance, using the HFA standards and the Oregon Performance Measures as criteria. All sites received at least one quality assurance/technical assistance visit per year, and state staff trained 196 new Healthy Start workers. Further, during 2007, 13 Oregon Healthy Start program leaders were trained by HFA as Certified National Peer Reviewers. This deepened the level of program knowledge and skill within the state.

## Outcomes for Children and Families, FY 2007-08

Over the past 14 years, a set of outcome indicators has been developed to measure Healthy Start's annual progress toward two key Oregon Benchmarks: (1) **reduced incidence of child maltreatment** and (2) **improved school readiness**. The analysis of child maltreatment data is scheduled to be released in winter 2009. This document summarizes the remaining outcomes, organized in two major domains: (1) Risk factors for child maltreatment; and (2) School Readiness. County-level information is presented in Tables 1 through 37. Data related to Ore-

gon's Healthy Start Performance Standards is summarized in Tables 38 and 39.

### RISK FACTORS FOR CHILD

#### MALTREATMENT

In order to reduce rates of child maltreatment, the Healthy Start program targets several risk factors that have been found to be associated with higher incidence of child abuse and neglect (Cicchetti & Toth, 2000), including lack of parenting skills and parent stress. These results are summarized below (again, actual impacts on child maltreatment rates will be reported in a separate report in winter 2009).

#### *Positive Parenting*

Positive, supportive interactions increase children's well being and are related to reductions in child maltreatment (Shonkoff & Phillips, 2000). HFA standards require that the program have a comprehensive approach to promoting parenting skills and positive parent-child interactions (see Tables 34 & 35). Information from Healthy Start's Intensive Service families in FY 2007-08 found that after 6 months of Healthy Start services:

- 79% of parents reported **improved parenting skills**.
- 71% of parents reported **improved ability to help their child learn**.
- 85% of parents reported consistently **engaging in positive, supportive interactions with their children**.
- Almost two-thirds (61%) of parents reported a **decrease in parenting-related stress** from the time of the child's birth to the 6-month birthday, a period often associated with increased stress for new parents.

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**67% of Healthy Start Intensive Service parents reported reading to their children at least daily, higher than the national average.**

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## SCHOOL READINESS OUTCOMES

Three primary outcomes related to school readiness are tracked: (1) children's health, (2) children's growth and development, and (3) the ability of parents to provide developmentally supportive environments for their children. These results are presented below.

### *Health Outcomes*

Impressive health outcomes are reported for Healthy Start families. Workers reported that children are **receiving regular health care and immunizations** (see Tables 24 to 28). After at least 6 months of Healthy Start services:

- 98% of children **had a primary health care provider**, which greatly exceeds the Healthy Families America standard of 80%. In addition, 72% of the parents had a primary health care provider (see Table 24).
- 93% of children **received regular well-child check-ups** (see Table 24). The National Survey of Children's Health (NSCH, 2003) found that in Oregon, only 76% of children ages 0-5 had received even one well-child visit in the past year. National data report that only 84% of children under age 6 received a well-child visit during the past year (Child Trends, 2004). For low-income children this rate is even lower (81%), and is lower yet for Hispanic children (77%). In Healthy Start, 94% of Hispanic children were receiving regular well-child visits.
- Healthy Start workers reported that 93% of children were **fully immunized** by age 2 (see Table 26).<sup>1</sup> In contrast, only 78% of all Oregon 2-year-olds were fully immunized in 2006, according to the Oregon ALERT Immunization Registry (2006). Nationally, about 81% of child-

ren were found to be fully immunized by age 3, although rates for poor children are lower (76%; Child Trends, 2004). Healthy Start children exceed the HFA Standard of 80% fully immunized by age 2, as well as exceeding comparable national and local immunization rates.

- Only 6% of families reported regular use of emergency room services for routine health care (see Table 25).
- 95% of children had **health insurance**, compared to 85% of low-income children nationally (NSCH, 2003; Table 25). Further, of the 249 children lacking health insurance at the time of screening, 93% had been connected with health insurance by their most recent follow-up assessment. In the general population in Oregon, which includes families at considerably lower risk than Healthy Start families, only 91% of children ages 0 to 5 have health insurance (Kidscount, 2006). The National Survey of Children's Health (NSCH, 2003) found that only 77% of Oregon's children ages 0-17 had health insurance.
- While only 69% of mothers were breastfeeding their infants at program intake, mothers who received Healthy Start Intensive Services prenatally were significantly more likely to be breastfeeding compared to those enrolled postnatally.

### *Healthy Growth and Development*

HFA standards require regular developmental screening using a standardized tool and appropriate documentation and referral for children with identified delays. Healthy Start programs use the Ages and Stages Questionnaire (ASQ), administered at specific age-based intervals, to monitor children's development (see Table 29). The rate of screening of eligible children increased for the fourth year in a row, from 56% of eligible children in FY 2004-05, to 73% in 2005-06, to 79% in FY 2006-07, to 93% in 2007-08 (a total of 1,865 at-risk children screened). While at

<sup>1</sup> Healthy Start workers record this information primarily based on reviewing parents' immunization cards (45%) or by accessing Oregon's ALERT data system (43%).

least some of this increase represents improvements in the timely reporting of developmental screening information to the evaluation, monitoring and technical assistance in the past several years has focused on ensuring that all children are screened in a timely manner, and this year's data shows that these efforts have paid off.

Of those children whose ASQ results were reported this year, a large majority (91%) of these children showed patterns of normal growth and development at their most recent screening. Of the 153 children (8%) with delays indicated, almost all (96%) were referred to Early Intervention or were provided with information and direct support from Healthy Start workers.

Statewide, eighty-six children (4.7%) were reported as having a diagnosed developmental delay. Of these, most (80%) were receiving early intervention at the time of the most recent Family Update.

In addition to the ASQ, programs use the Ages and Stages Social-Emotional Scale (ASQ-SE) to screen children for developmental delays specific to social-emotional areas. Families are eligible for the ASQ-SE when the babies reach 6 months of age (see Table 31). Of the 2,059 eligible families, 1,838 (89%) reported ASQ-SE results to the evaluation team, a sizeable increase over last year, when only 71% of eligible children were screened with the ASQ-SE.

Of those children whose ASQ-SE results were reported this year, a large majority (95%) of these children showed patterns of normal growth and development at their most recent screening. Of the 54 families with children who had delays indicated (although not necessarily diagnosed), 43% (n=23) were connected with Early Intervention or mental health services; 39% (n=21) were provided

with information and direct support from Healthy Start workers; the remainder were referred to services but not connected, or declined further services.

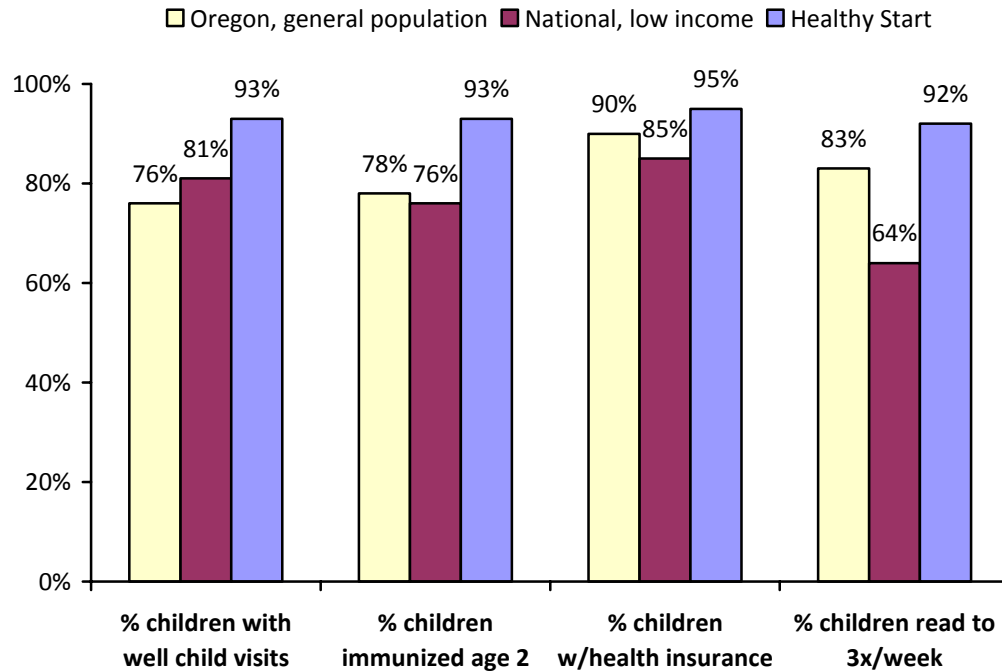
### *Early Literacy and Learning*

Family literacy activities are strong predictors of school readiness, and the absence of these activities is one key reason that children from low-income families are at risk of school failure (Shonkoff & Phillips, 2000). Healthy Start families, however, are showing quite positive outcomes in this area.

First, after 12 months of Intensive Service, 84% of families are **creating learning environments** for their young children that their home visitors rated as "good" or "very good", as indicated by the scoring criteria for The Home Observation for Measurement of the Environment Inventory (Bradley & Caldwell, 1984) (see Table 33). This result compares favorably with findings from other, comparable populations (e.g., Caldwell & Bradley, 1994).

Second, by age 1, 88% of families were reported as **reading to their children at least 3 times per week** (see Table 35), according to the home visitor (92% of parents also self-reported reading 3 or more times per week in a confidential survey). Seventy percent (70%) of parents reported reading daily or more. This is a key indicator of a developmentally supportive early literacy environment. In Oregon, survey results show that about 83% of families in general report reading at least 3 times a week to their children under age 5; this figure is considerably lower for low-income families (67%) and Hispanic families (56%) (NSCH, 2003). Nationally, only about two-thirds (68%) of low-income families read to their young children 3 or more times per week (NSCH, 2003).

**Figure 1. Healthy Start Outcomes vs. Other Populations**



#### CONNECTING FAMILIES WITH RESOURCES

One of the key HFA critical elements requires programs to document evidence that they are successfully connecting families to appropriate resources and referral sources. On the Family Intake and Update forms, Family Support Workers report families' need for a variety of services, and whether these needs are met. The most frequently reported needs are listed below, along with the percent of families who were successfully connected to the appropriate service by 6 months (see Table 30).

- Housing Assistance (264 families in need, 85% connected)
- Medicaid/OHP (244 families in need, 98% connected)
- Education Assistance (209 families in need, 91% connected)
- Job Training & Employment Services (162 families in need, 91% connected)
- Mental Health Services (125 families in need, 93% connected)

- Temporary Aid for Needy Families (TANF, 128 families in need, 97% connected)
- Domestic Violence Services (47 families in need, 96% connected)
- Dental Insurance (37 families in need, 77% connected)
- Drug and/or Alcohol Abuse Treatment (18 families needed, 100% connected).





Healthy Start also appears to be supporting parents in reaching self-sufficiency. About one-fifth (20%, n=651) of parents reported that their family income situation had improved over the previous 6 months (see Table 33), and one-third (32%, n=1029) reported at least one caregiver obtained a new job. While these figures suggest that Healthy Start is doing a good job linking these families with needed services, the small number of families with needs in some areas suggests that greater efforts to identify family needs, especially in the areas of drug/alcohol abuse, mental health, and domestic violence, may be needed.

### DO PROGRAM OUTCOMES DIFFER FOR PARENTS WITH DIFFERENT CHARACTERISTICS?

In addition to the analyses reported above, we examined outcomes for Healthy Start clients with different demographic and risk characteristics. These analyses can help determine whether Healthy Start is doing a better job serving parents with particular characteristics, and/or whether the program needs to strengthen its efforts for certain parents. However, it is also important to keep in mind that these analyses compare outcomes *within* the Healthy Start programs; some higher-risk subgroups might be expected to do even less well without the support provided by Healthy Start; only a “no treatment” comparison group could provide unequivocal evidence of the effectiveness of Healthy Start in general and for particular subgroups of families.

Differences were examined for the following outcomes:

- *Parenting*: (1) Reported improvement in parenting skills and (2) reductions in parenting stress;
- *Support for School Readiness*: (1) HOME (Home Observation for Measurement of the Environment) scores and (2) frequency of parent reading to the child;

- *Child Health*: (1) Whether the child is connected to a primary health care provider; (2) receipt of regular well-child check-ups; and (3) whether the child is fully immunized.

Specifically, we conducted analyses to determine whether any of these outcomes differed for parents in the following groups:

- Hispanic vs. White/Caucasian parents<sup>2</sup>
- Teenaged (17 and younger) vs. non-teenaged parents
- Unmarried vs. married parents
- Employed vs. unemployed parents<sup>3</sup>
- Parents with less than a high school diploma/GED vs. parents with at least a high school diploma
- Parents at risk for depression vs. parents not at risk for depression (at screening)
- Parents with more total risk factors vs. those with less risk factors

Results showed the following, and are summarized in Tables B & C.

<sup>2</sup> Other racial/ethnic subgroups did not have sufficient sample size to allow for appropriate statistical analysis.

<sup>3</sup> For two-parent families, both parents unemployed; for single-parent families, that parent unemployed.

**Table B. Key Health Outcomes—Do They Differ for Families With Different Characteristics?**

	% children with regular well-child visits	% children with primary care provider	% children fully immunized at age 2
Race/ethnicity (White vs. Hispanic)	NS	Hispanic < White	Hispanic > White
Teen parents	Teens < non-teens	NS	NS
High School/GED vs. Less than High School	Less than HS<HS	Less than HS<HS	
Employed vs. Unemployed	NS	NS	NS
Single vs. Married	NS	NS	NS
Prenatal Screening vs. Postnatal	NS	NS	NS
Depression indicated vs. not	NS	NS	NS
Total Risk Factors	Fewer RF > More RF	Fewer RF > More RF	NS

Note: All differences shown in the table were statistically significant,  $p<.05$ , unless noted as “NS” (not significant).

**Table C. Parenting and Learning Environment Outcomes—Do They Differ for Families With Different Characteristics?**

	% children read to 3x/week or	% families “good” or better HOME score	Improvement in parenting skills at 6 months	Reduction in parenting stress
Race/ethnicity (White vs. Hispanic)	Hispanic < White	Hispanic < White	NS	Hispanic > White
Teen parents	Teens<Non-teens	Teens < Non-teens <sup>4</sup>	NS	NS
High School/GED vs. Less than High School	Less than HS<HS	Less than HS<HS	NS	NS
Employed vs. Unemployed	NS	Unemployed < Employed	NS	NS
Single vs. Married	NS	NS	NS	Single < Married
Prenatal Screening vs. Postnatal	NS	NS	NS	NS
Depression indicated vs. not	NS	NS	Depressed>Not Depressed	NS
Total Risk Factors	Fewer RF > More RF	Fewer RF > More RF	NS	NS

Note: All differences shown in the table were statistically significant,  $p<.05$ , unless otherwise noted.

<sup>4</sup> Marginally significant trend,  $p<.07$

### *Outcomes for Hispanic Parents*

Analyses show that although Hispanic families generally have positive parenting outcomes, results differ somewhat compared to White/Caucasian families, specifically:<sup>5</sup>

- Hispanic parents were more likely to report a reduction in parenting stress after six months in the Healthy Start program (63% reporting a reduction vs. 58% of White/Caucasian parents).
- Hispanic parents had somewhat less positive scores on the HOME at the child's 12 month birthday, indicating that they may be providing a less developmentally enriching environment for their children (78% scoring in the 'good or better' range vs. 89% of White/Caucasian families).
- Hispanic parents were also less likely to be reading to their child 3 times per week or more at the 12-month assessments (83% vs. 92% of White/Caucasian parents). It should be noted, however, that nationally only about 56% of Hispanic families read to their children at least 3 times per week, NSCH, 2003), so this still represents a strong positive outcome for these Healthy Start families.
- Hispanic children were *more likely* to be immunized at age 2 (95%), compared to White/Caucasian children (90%), but somewhat less likely to be connected to a primary health care provider (97% vs. 99%) and were no more or less likely to receive regular well-baby visits or to be fully immunized at age 2. Outcomes for both White and Hispanic Healthy Start children in all of these areas, however, are quite high in comparison to Oregon

and national figures for these two groups (NSCH, 2003).

### *Outcomes for Teenaged Parents (17 years and under)*

Teenaged parents generally scored similarly to non-teenaged parents, with a few exceptions:

- Children of teenaged parents were somewhat less likely to have received regular well-baby check-ups;
- Teenaged parents were somewhat less likely to be reading to their child 3 times per week or more at the child's 12 month birthday (83% of parents), compared to non-teenaged parents (88%).
- There was a marginally significant ( $p<.07$ ) trend for teen parents to be less likely to score in the "good or better" range on the HOME assessment (78% vs. 84%).

### *Outcomes by Marital Status*

Single and married mothers had generally similar outcomes, with one exception:

- Single mothers were less likely to experience a reduction in their stress levels from birth to 6 months postpartum (59%), compared to married mothers (65%).

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**"Healthy Start has always been  
respectful, knowledgeable &  
sensitive to me and my traditions,  
goals & culture."  
– Healthy Start Parent**

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### *Outcomes by Employment Status*

There was only one difference in outcomes for employed vs. unemployed parents:

- Unemployed parents were less likely to be providing a developmentally appropriate learning environment as measured by the HOME (78% vs. 85%).

<sup>5</sup> All Chi-Squared statistics significant,  $p<.05$

### *Outcomes by Education Status*

Educational status was associated with less positive outcomes on several dimensions, most likely because of the association of low education with greater poverty. Specifically:

- Children whose mothers had less than a high school education were less likely to have had all of their well-baby visits (91% vs. 95%) and slightly less likely to have a primary health care provider (97% vs. 99%).
- These children were also less likely to be read to at least 3 times per week (85% vs. 90%) and their families were less likely to be providing supportive learning environments (80% vs. 86%).

Again, however, it should be noted that outcomes in these areas are quite positive overall in comparison to Oregon and national statistics.

### *Outcomes by Risk for Depression:*

Intensive Service mothers who scored at risk for depression on the screening (NBQ) had generally similar outcomes as parents not indicating risk for depression with one exception:

- Parents who scored at higher risk for depression on the screening (NBQ) were *more* likely to report an improvement in parenting skills after 6 months in the Healthy Start program (83%) vs. parents who were not at risk for depression (76%).

### *Outcomes by Total Risk Factors*

We examined the relationship between the total number of risk factors and each of the outcomes. For most of the outcomes, there was a statistically significant but small association between the total number of risks and outcomes, such that those with more risks at intake had less positive outcomes (compared to those with fewer risk factors at intake). Specifically, those with fewer risks at intake were more likely to:

- Have received regular check-ups during the past year
- Have a primary health care provider
- Read to children at least 3 times per week
- Score in the “good” or better range on the HOME assessment

There was no association between number of risk factors and the likelihood of immunization, improvement in parenting skills, or reductions in parenting stress.

### *Summary of Outcome Analyses for Parents with Different Characteristics*

Results of these analyses suggest that in general, families who have more risk factors (especially education status and teen parent status) and those who are Hispanic tend to be less likely to have achieved the same level of positive outcome as families with fewer risks. However, overall the magnitude of these differences are small, and the absolute level of outcomes achieved for these subgroups are quite positive. These higher risk subgroups, without the intervention and support provided by Healthy Start, might be expected to have much less positive outcomes, especially in contrast to lower risk parents. However, these results do suggest that there are areas for possible program improvement. First, both Hispanic and teen parents were less likely to be reading frequently to their children. Given the importance of reading as a precursor to children’s language and literacy development, Healthy Start workers may want to emphasize the importance of this activity, especially among these groups of parents. Further, workers may want to redouble their efforts to ensure that families with lower educational attainment are receiving adequate levels of support to ensure the best outcomes for these children.

Second, while results generally do not show that parents at risk for depression have *better* outcomes (with the exception of parents’ perceived parenting skills), compared to those less at risk, the fact that at-risk parents

did as well as non-depressed parents suggests that Healthy Start may play an ameliorative role in reducing the impact of sub-clinical depressive symptomatology on parenting. Depression has widely been shown to negatively impact parenting behavior (Taaffe McLearn, Minkovitz, et al., 2006).

Finally, it should be noted that given the number of comparison analyses conducted, readers should be cautioned against attributing meaning to statistically significant differences for a subgroup within a single domain; such differences may be the result of the number of statistical tests conducted rather than representing meaningful differences in program outcomes.

### PARENT SATISFACTION

Programs request that parents complete a survey that includes questions about their relationship with the Family Support Worker and their satisfaction with program services. Surveys are completed at program intake and 6 and 12 months and annually thereafter. Parents are provided a confidential envelope and asked to complete the survey and place it in the sealed envelope which is then transmitted to NPC Research.

Results of these parent surveys indicate that parents almost universally report they have benefited from the services they receive from Healthy Start (see Table 37). Almost all of the Intensive Service parents (96% of the 1,744 parents responding) reported that Healthy Start helped them obtain and understand parenting information. Also, parents reported that their home visitor helped with obtaining basic resources (80%), dealing with emotional issues (77%), gaining education and job assistance (71%) and encouraging the development of positive relationships with family or friends (81%).

As shown in Table 36, almost all parents responding indicated that Healthy Start workers respected their family's cultural and/or religious beliefs (92%), and provided materials in their primary language (91%). Further, almost all parents reported that their workers used a strengths-based approach to providing services, by helping them to see strengths they didn't know they had (86%); helping parents use their own skills and resources (89%), working as a partner with them (93%), helping them to see that they are good parents (98%), and encouraging them to think about their personal goals (97%).

More than 1,100 parents surveyed added handwritten comments describing the benefits of Healthy Start for their families. Parents noted the "invaluable" emotional support and information provided by home visitors. Parents repeatedly commented about the value of having "someone to talk to" as well as expressing appreciation for the information provided by Healthy Start workers, the

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**Healthy Start successfully screened more eligible families in FY 2007-08 than any previous year:  
9,897 families representing 49% of first-births statewide.**

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resources that workers help families to access, and the help with parenting by Healthy Start. A number of parents expressed the importance of being able to meet with other mothers, and the impor-

tance of "not having to do this alone." Further, parents almost unilaterally commented that Healthy Start workers were respectful, supportive, and worked with parents as partners in helping their children develop. Suggestions for improvements were almost entirely focused on parents' desires to see services broadened and expanded to serve subsequent births, to serve current children for a longer period of time, and to serve more families in need. A number of parents requested additional services such as more playgroups, more concrete resources, and more frequent home visits. Comments from both English- and Spanish-speaking parents were unilateral

in their support and appreciation for the Healthy Start program.

## Program Implementation & Service Delivery Results

A consistent finding in the research literature is that effective home visiting programs should start early in the life of the child and provide comprehensive and intensive services to at-risk families. Programs that are not well implemented, or which do not successfully engage families are less likely to show positive outcomes (Sweet & Appelbaum, 2004). In Oregon's Healthy Start program, implementation and service delivery achievements are monitored using the state-wide Performance Indicators, as well as the HFA standards for effective home visiting programs. Below, we present data on key Performance Indicators and HFA standards for Oregon's Healthy Start program. Appendix A, Tables 38 & 39 summarize Oregon's status in regard to key HFA and Oregon Performance Indicators.

### EFFECTIVE SCREENING TO IDENTIFY HIGHER-RISK FAMILIES

The foundation of the Healthy Start program is its universal screening of all first-time parents. Healthy Start programs strive to reach all first-time parents with screening and referral services either prenatally or at the time of the child's birth, although current funding levels are not adequate to ensure that all eligible parents are screened. In providing universal risk screening for first-time parents, Healthy Start is unique nationally for its large-scale system of outreach to potentially at-risk populations.

The effectiveness of Healthy Start's screening system has continued to increase. This year, Healthy Start screened 9,897 first-birth



families, more than 100 more than last year and representing 49% of all eligible first births (see Table 1 for details). Eighteen programs met the Oregon Performance Standard for screening at least 50% of all eligible first births, including seven programs that screened 70% or more of eligible first births. Only a few programs (n=6) screened fewer than 30% of eligible first births. In many of these cases, low screening rates are associated with long-standing barriers such as a refusal by local hospitals to allow Healthy Start screening staff to talk to new parents.

As shown in Table 2, most families who are offered initial Healthy Start screening and "welcome baby" information accept services—in FY2007-08, only 14% of those offered Healthy Start information declined (compared to 19% during FY2006-07). Of

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**"Healthy Start has provided me with information and resources to better raise my son. I have the confidence knowing I can call on someone whenever I need to, and I don't have to do this alone."**

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*— Healthy Start Parent*

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these, 7% (807 families) were not interested in even hearing about Healthy Start services; another 7% received Healthy Start's parenting and community resources information packet, but declined to participate in screening or services.

An additional 6% (791 families) could not be located for screening after signing an initial consent. Finally, a few families (147, about 1% of those screened) were screened but declined to participate in the evaluation and thus information about the characteristics

and status of these families is not included in this report.

Almost all screening (89%) took place prenatally or within 2 weeks of the child's birth (see Table 3), greatly exceeding the HFA performance standards. At the program level, 21 out of the 34 programs (62%) met the HFA standard of 80% of screenings occurring during this time frame. Statewide, 29% of screening took place prenatally, about the same as last year. The rate of prenatal screening varies considerably depending on local program models. For example, 12 programs conducted 60% or more of their screens prenatally, while 8 conducted fewer than 20% prenatally. The median number of days from the baby's birth to when families were screened by Healthy Start was one (1) day (counting prenatal screens as zero days); county medians ranged from 0-57 days (although the program with a median of 40 days screened only nine families, at least two of which occurred several months after the birth).

During FY 2007-08, families were considered to be at higher risk (and eligible for services) if they screened positive on **any two risk factors** on the New Baby Questionnaire, or positive for **either** the maternal depression or substance use indicators. As shown in Table 4, out of 9,106 families with risk factor screening data, 57% (5,208 families) were eligible for Intensive Services home visiting.

Analyses of the number of risk factors shows that, as expected, very few families are meeting eligibility based *solely* on the presence of maternal depression or substance use; as expected, these risk factors tend to appear in conjunction with other risk factors. Of those families screened, 57% screened as eligible, but only 2% were eligible based on the presence of these single risk factors only (see Table 4). Families were most likely to have either 2 (17% of all screened families) or 3 (15%) risk factors, although a sizeable number had four risk factors (1,022 or 11%) or five or more risk factors (1,209, 12% of those

screened). Families' levels of risk are comparable to prior years, although somewhat more families had four or more risk factors in FY2007-08 (2,113 families, 23%) compared to FY2005-06 (1,711 families, 19%). Data from the Healthy Start evaluation in prior years shows a clear relationship between the number of risk factors a family has and their risk for child maltreatment, with families with four or more risk factors being more than 6 times as likely as families with no risk factors to have a founded maltreatment report (Green, Brekhus, Mackin, Tarte, Snoddy, & Warren, 2007).

#### *Acceptance Rates for Intensive Services*

After identifying families as eligible for Intensive Services, Healthy Start staff must decide whether the family can be offered Intensive Services. The decision to offer services can be based on a number of factors, including the availability of other appropriate services, current Healthy Start caseloads, and individual program guidelines for identifying families who may have particularly high needs. One of the issues highlighted in this year's data is a striking increase in the number of families who were *offered* Intensive Services compared to previous years—3,137 families (61% of those eligible<sup>6</sup>), compared to 2,706 families in FY 2006-07, and only 1,175 families in FY 2005-06 (see Table 9). During 2006-07, Healthy Start adopted a "one-step" eligibility process that greatly increased the number of families who could be offered Intensive Services.<sup>7</sup>

<sup>6</sup> Note that although there were 5,208 families with high risk screens, only 5,155 had complete information about whether they were offered Intensive Services.

<sup>7</sup> Prior to 2006-07, families had to be interviewed with the Kempe assessment in order to determine whether Intensive Services could be offered. Data analysis showed that as many as 50% of those screened at high risk were never contacted or located in order to conduct the Kempe assessment to determine eligibility.



Of the 3,137 families offered Intensive Services, 49% accepted Healthy Start services, while 51% declined (a slight reduction from last year, when 54% declined Intensive Services). Of those who declined, the most common reason was that the parent felt that they didn't need home visiting services (1,109 families, 70% of those declining). Much smaller percentages of families stated that they were "too busy" (234 families, 15%) or gave another reason (250 families, 16%).

Programs ranged from a high of 100% acceptance in two very small programs to a low of 28%, with 7 programs having an acceptance rate of 75% or higher.

Because the number of families who decline Intensive Services was fairly high, it is important to understand the differences between those who accept Healthy Start and those who do not. Given Healthy Start's goal of reaching high-risk families, it would be problematic if, for example, families who were higher risk were less likely to accept the needed services. To examine this, we conducted further analyses to explore which families were more or less likely to accept Intensive Services. Results suggest that families are "self-selecting" out of Healthy Start based on their risk status – specifically, families with more risks were significantly **more likely** to accept Intensive Services ( $B=-.271$ ,  $p<.001$ ). This is an extremely important finding, as it suggests that Intensive Services are, in fact, going to higher-risk families who are most in need. Clearly, Healthy Start is **not** providing Intensive Services primarily to lower-risk "easier" families (a process sometimes referred to as "creaming"); indeed, it appears that just the opposite is occurring.

Healthy Start also analyzes differences in acceptance rates for families with different demographic characteristics. NPC Research analyzed whether the acceptance rates were different for the following groups: Hispanic/Latino vs. Caucasian; married vs. single; teen vs. non-teen mothers; mothers with



greater than a high school education vs. mothers with less education; employed vs. unemployed mothers; at risk for depression; and those receiving prenatal vs. post-natal screening.

As shown in Tables 18 and 19A & B, there was a strong and significant difference<sup>8</sup> in terms of racial/ethnic background: Hispanic/Latino families were more likely to accept Intensive Services (57%), compared to Caucasian families (45%). Similarly, Spanish-speaking mothers were more likely (58%) than English-speaking mothers (47%) to accept services. Further, reflecting the pattern described previously wherein higher risk families appear to be accepting services at higher rates, results also showed that teen mothers were more likely to accept Intensive Services than non-teen mothers (57% vs. 47%), mothers with less than a high school education were more likely to accept services (57% vs. 45%), depressed mothers were more likely to accept (56% vs. 45%); unem-

<sup>8</sup> Hispanic/Latino vs. Caucasian ( $\chi^2(2)=29.4$ ,  $p<.001$ ); Spanish vs. English speaking ( $\chi^2(2)=24.91$ ,  $p<.001$ ).



ployed families were more likely to accept (55%) than employed families (47%). Further, 59% of parents who self-reported a possible substance abuse problem accepted Intensive Services.

There was also a slight trend towards families who were screened prenatally to be more likely to accept Intensive Services (50%) compared to those who were screened postnatally (46%).

No other differences in acceptance rates by demographic factors were significant.<sup>9</sup>

#### *Enrollment in Intensive Services*

In FY 2007-08, a total of 3,235 families received Intensive Services and participated in the evaluation (see Table 10), a 13% increase (378 families) in the number of Intensive Service families compared to 2006-07 (2,857 families). Healthy Start enrolled 1,423 new Intensive Service families, a slight increase from 2006-07 (1,273 families). There were also considerably more families who continued to participate in Healthy Start from the prior year (1,812 vs. 1,584 in FY 2006-07). This likely reflects the increased funding available to programs both for stabilization and service expansion during FY 2007-08.

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**80% of Healthy Start Families  
are at or below the  
Federal Poverty Level**

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#### *Intensive Service Capacity*

Of the 9,106 families with risk factor screening data during FY 2007-08, 57% (5,208 families) screened at higher risk, and thus were potentially eligible for Intensive Services. Of these families, 5,155 had complete information about whether they were offered Intensive Services,

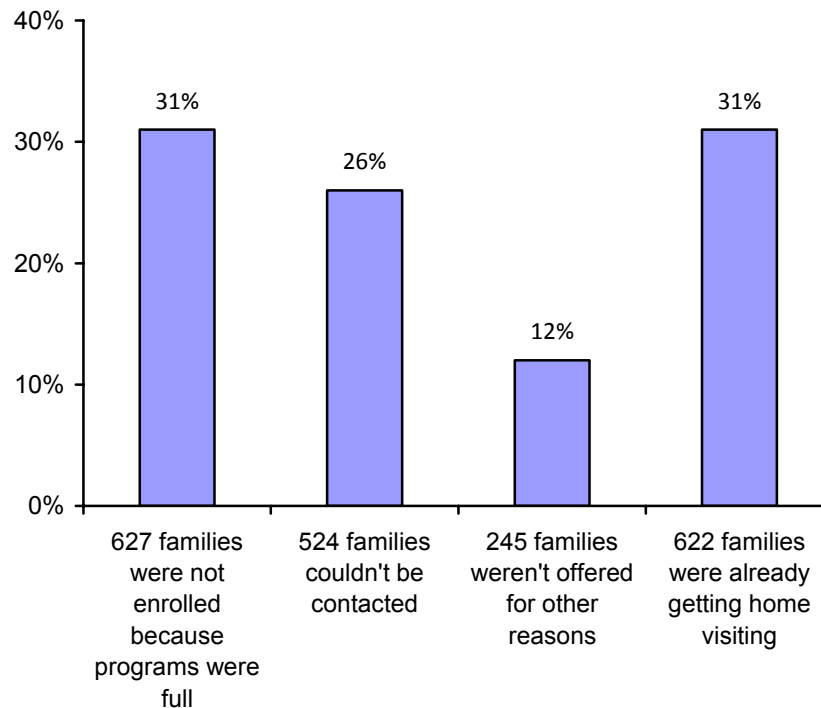
and reasons why services were not offered. As mentioned above, 3,137 newly eligible families were offered Intensive Services (61% of those eligible). The remaining 2,018 eligible, high-risk families were not offered Intensive Services, most frequently because caseloads were full (627 families, 31% of those not offered service). Twenty-six percent (26%) of families who screened as eligible for Intensive Services could not be located in order to offer them the opportunity to participate. Moreover, in Multnomah County, a significant number of families (622, 31% of those not offered IS) were already involved with another home visitation program provided by the program at the time Healthy Start was offered.

By the end of FY 2007-08, programs were able to enroll only 1,423 new Intensive Service families (see Table 10) representing 28% of those eligible, indicating that the unmet need for Intensive Services is quite large. Last year, only 25% of eligible families were able to be enrolled in Intensive Services. Current program size would need to be nearly doubled in order to maintain currently participating families and enroll even the 627 new families who were screened and tracked to the point of being denied services because of full caseloads this year. If screening were expanded to reach all first births, the unmet need for Intensive Services could more than triple.

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<sup>9</sup> Teen vs. non-teen ( $X^2(1)=18.86$ ,  $p<.001$ ); less than high school vs. greater than high school,  $X^2(1)=45.46$ ,  $p<.001$ ); unemployed vs. employed ( $X^2(1)=17.41$ ,  $p<.001$ ); prenatal vs. post natal screening ( $X^2(2)=5.98$ ,  $p<.01$ ).

**Figure 2. Reasons for Not Offering Intensive Service**



## WHO ARE HEALTHY START FAMILIES?

### *Characteristics of Healthy Start Families*

HFA standards require programs to maintain a description of the current service population that addresses cultural, racial/ethnic, and linguistic characteristics. As shown in Figure 2, families who participated in Healthy Start's Intensive Service component were significantly<sup>10</sup> more likely than families who

received screening and information/referral only to be Spanish-speaking (27% vs. 13%), Hispanic/Latino (37% vs. 18%), teen parents (21% vs. 7%), single parents (77% vs. 48%), have less than a high school education (44% vs. 19%), have both parents unemployed (32% vs. 14%), have financial difficulties (78% vs. 44%), have dealt with depression (44% vs. 17%), have serious marital problems (28% vs. 10%), lack health insurance (mothers) (10% vs. 5%); lack health insurance (infants) (10% vs. 5%); to have indicated a problem with substance abuse in the family (7% vs. 2%) and had late prenatal care (33% vs. 19%). The great majority of Healthy Start Intensive Service families are at or below the Federal Poverty Line (80%). Moreover, as shown in Figure 2, Healthy Start families were at considerably higher risk than the general Oregon population.

Demographic and risk information for all families screened this year (Tables 5-8) and for Intensive Service families (Table 12-17) are provided in Appendix A.

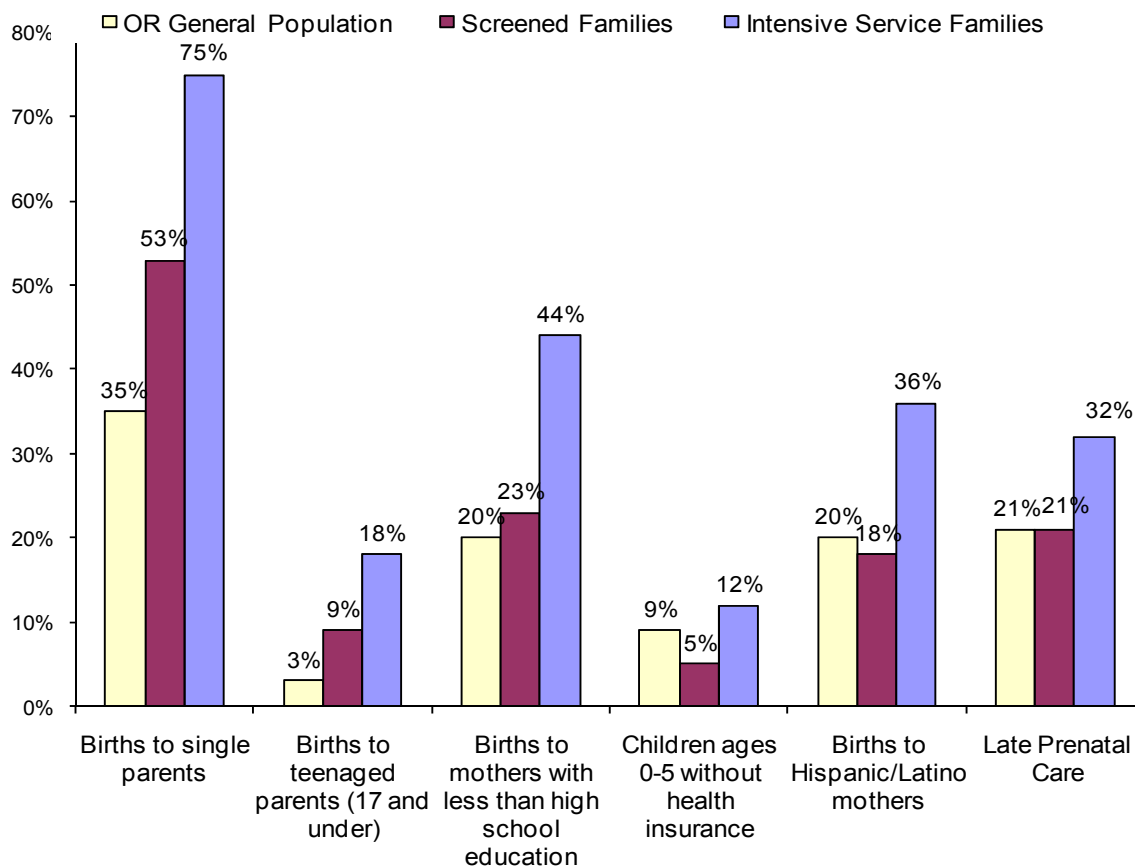
<sup>10</sup> Hispanic/Latino vs. Caucasian ( $\chi^2(1)=209.67$ ,  $p<.001$ ); Spanish vs. English speaking ( $\chi^2(1)=175.76$ ,  $p<.001$ ); married vs. single ( $\chi^2(1)=385.7$ ,  $p<.001$ ); teen vs. non-teen ( $\chi^2(1)=248.5$ ,  $p<.001$ ); less than high school vs. greater than high school,  $\chi^2(1)=424.1$ ,  $p<.001$ ); unemployed vs. employed ( $\chi^2(2)=251.56$ ,  $p<.001$ ); financial concerns vs. no financial concerns ( $\chi^2(2)=927.4$ ,  $p<.001$ ); depression vs. not depressed ( $\chi^2(1)=511.61$ ,  $p<.001$ ); serious marital problems vs. no serious marital problems ( $\chi^2(1)=331.08$ ,  $p<.001$ ); no health insurance vs. has health insurance (mothers) ( $\chi^2(1)=65.09$ ,  $p<.001$ ); no health insurance vs. has health insurance (babies) ( $\chi^2(1)=61.76$ ,  $p<.001$ ); late prenatal care vs. early prenatal care ( $\chi^2(1)=145.05$ ,  $p<.001$ ); substance abuse vs. no substance abuse ( $\chi^2(1)=67.63$ ,  $p<.001$ ).

Intensive Service families were 50% Caucasian, 36% Hispanic/Latino, 4% Asian/Pacific Islander, 2% African American, 1% American Indian, and 5% multiracial. About one-third (32%) indicated Spanish as the primary language spoken at home, while an additional 3% indicated that a language other than English or Spanish was the primary language. A significant number of Intensive Service mothers (18%) were under 18 years of age, 75% were single mothers, and 44% had less than a high school education.

About 29% of Intensive Service mothers reported that neither she (nor her partner, if applicable) were employed, and 42% indicated a risk for maternal depression (see Table 15). About one-third (32%) of Intensive Service mothers indicated they had late or no prenatal care with their first pregnancy. Thirteen percent of mothers (13%) indicated that they had no health insurance (see Table 14) and 64% reported being on the Oregon Health Plan (see Table 14). Among infants, 12% were not covered by health insurance.

**Figure 3. Healthy Start Family Demographic Characteristics**

Note: Oregon general population rates are based on all births. Information is based on final 2007 vital statistics downloaded on 12/2/08 from: [www.dhs.state.or.us/dhs/ph/chs/data/birth/birthdata.shtml](http://www.dhs.state.or.us/dhs/ph/chs/data/birth/birthdata.shtml)

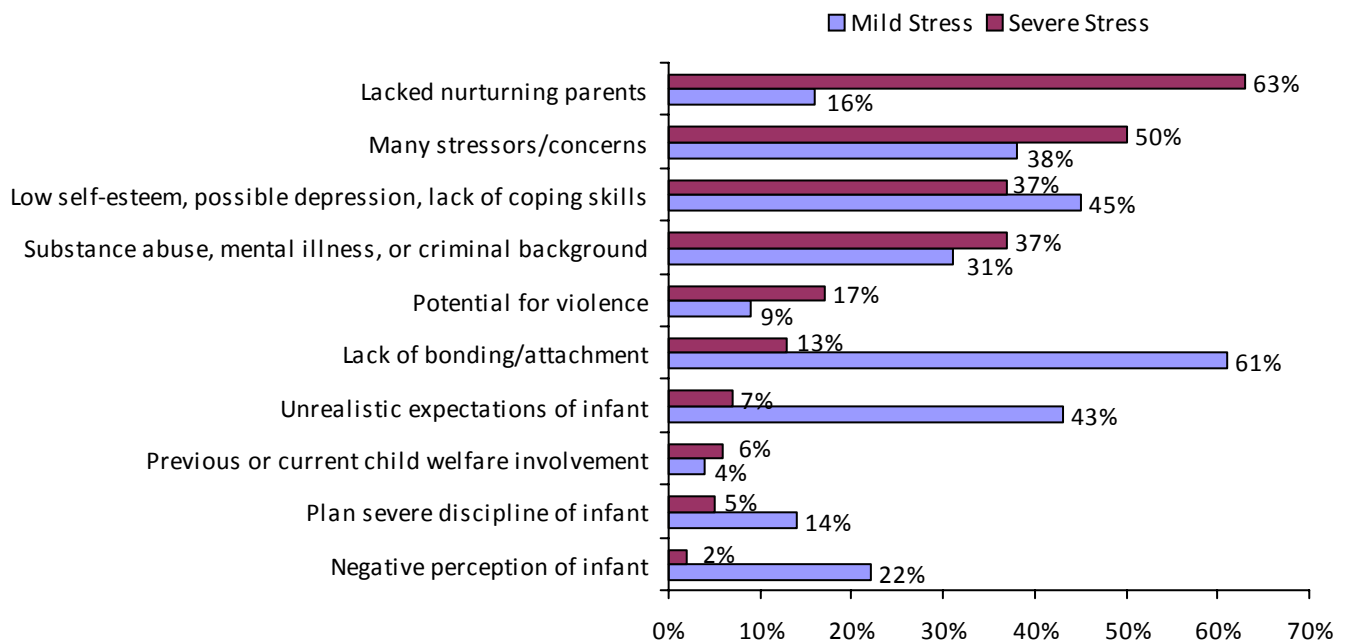


Kempe assessments, while no longer a part of the eligibility process, are conducted with families within the first month of Intensive Services in order to identify family issues and plan appropriate services (see Table 16, and Figure 4). By doing the Kempe, Family Support Workers “ask the hard questions” that are needed to identify family needs in such areas as substance abuse, domestic violence, and mental health and can form the basis for referrals for these services. Of *new families* enrolled this year, Kempe assessments were completed on 77% of families (n=973) in time for inclusion in this report. Kempe assessments completed in 2007-08 document that a large proportion of the parents in Healthy Start lacked nurturing parents themselves (79%), with concerns ranging from relatively mild use of corporal punishment to more serious abuse and neglect. More than two-thirds (68%) of Healthy Start

children have at least one parent who has at least a mild concern with substance abuse, mental illness or criminal involvement in their family. About 10% of parents reported having current or previous history with the child welfare system. Almost all parents reported feeling isolated, having few available social supports, poor coping skills, and/or low self-esteem (82%).

Furthermore, at program enrollment, Healthy Start children often had at least one parent with risks specifically associated with poor parenting skills. For example, 50% had poor understanding of developmental milestones, 74% had concerns about bonding/attachment, and 19% reported plans for using severe discipline techniques (see Table 17). These results illustrate that Intensive Service families are at very high risk for negative family outcomes including child maltreatment (Shonkoff & Phillips, 2000).

**Figure 4. Percentage of all Intensive Service Parents With Either Mild or Severe Levels of Stress on the Kempe Assessment**



## ENGAGING FAMILIES IN INTENSIVE SERVICES

Research shows that engaging and retaining higher-risk families in intensive high-quality home visiting services is one of the keys to positive program outcomes (Sweet & Appelbaum, 2004; Olds et al., 1999). Healthy Start continues to show considerable success with engaging higher-risk families in Intensive Services (see Tables 9 & 11):

- While 49% of 3,137 families who were offered Intensive Services agreed to participate, higher risk families were actually *more likely* to accept Intensive Services than lower risk families.
- Almost all (82%) of those families who accepted Intensive Services received a first home visit and were successfully enrolled in the program (1,271 families). This is an increase from 71% last year.
- Of those who did not receive a first home visit, 43% (118 families) declined further services; were unable to be located (34%); moved out of the Healthy Start service area (3%); or were unable to be served for other reasons (19%).
- 94% of Intensive Service families received their first home visit within 3 months of the baby's birth, greatly exceeding the HFA standard of 80%.

Another key indicator of the quality of Healthy Start is the ability of the program to successfully deliver home visiting services. The HFA model specifies that families should receive weekly visits from the FSW for at least 6 months after enrollment (known as "Level 1"). Following this initial

period, service frequency is adjusted according to a structured system based on family needs. For example, families progressing well might move on to Level 2, which requires home visits every other week; families in need of greater support may remain on Level 1.

To monitor whether families are receiving the appropriate number of home visits based on their speci-

fied level of service, NPC Research developed an electronic form for programs to complete to document the number of visits provided to each family each month, given the family's service level. This form automatically calculates the percentage of expected visits that were completed for each family and worker. HFA standards suggest that at least 75% of families should receive 75% of their expected visits.

During FY 2007-08, the statewide average showed that 72% of families were receiving at least 75% of the expected number of home visits for their level of service, an increase from last year (69%) that falls just short of meeting the HFA criteria of 75% of families (see Table 11). However, there was considerable variation by program on this indicator as well, with 17 of the 34 programs (50%) providing data meeting the HFA standard, and an additional 10 providing over 65% of their families with the expected number of visits. Only one program provided fewer than 50% of families with the required visits.<sup>11</sup>

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**"Healthy Start should be available to  
all parents in the state—  
not just first time parents"**  
— *Healthy Start Parent*

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<sup>11</sup> This program served fewer than 10 families, so percentages are easily influenced by outliers.

## WHO DROPS OUT OF INTENSIVE SERVICES?

As shown in Table 23, a total of 1,177 Intensive Service families exited the program during FY 2007-08 (36% of total Intensive Service families served this fiscal year). The mean age of children at the time of exit was 11 months, one month older than during FY 2006-07. This may indicate that families were being retained somewhat longer this year.

As shown in Table 23, data indicate that the most frequent reasons for leaving Intensive Services were that parents were no longer interested in receiving services (39%), families moved (21%), or families were unable to be contacted by their worker (11%). 166 (14%) children reached the program's age limit (typically, 3 years of age). Family Support Workers indicated 66% of exiting families (741 families) were making "excellent" or "good" progress at the time of exit.

HFA standards call for programs to annually analyze "who drops out of the program and why." To begin to answer this question, we examined retention rates for families enrolled during two fiscal years: (1) 2005-06; and (2) 2006-07. For the 2005-06 cohort, we calculated retention rates for families at 3, 6, 12, 18, and 24 months after enrollment (see Table 20-A). For the 2006-07, we calculated retention rates for families 3, 6, and 12 months after enrollment (see Table 20-B).

Results indicated the following for the 2005-06 cohort:

- 78% of enrolled families were still in the program after 3 months of service.
- 64% of enrolled families were still in the program after 6 months of service.
- 43% of enrolled families remained in the program after 12 months of service;

33% after 18 months, and 26% after 24 months.

For the 2006-07 cohort, retention rates were quite similar:

- 76% of enrolled families were still in the program after 3 months of service.
- 65% of enrolled families were still in the program after 6 months of service.
- 52% of enrolled families remained in the program after 12 months of service. This was the first year since this outcome has been monitored that 12-month retention rates have been over 50%.

Clearly, retaining families for the duration of the program remains a challenge for Healthy Start programs, although the increase in 12-month retention rates was noticeable. More than half of the programs (n=19) met or exceed the state Performance Standard of 50% retention at 12 months, more programs than in the past three years that this data has been available.

Early engagement efforts may be most critical here: of children enrolled during 2006-07 who exited, the average age was about 6 months, suggesting that families tend to leave while children are still quite young. This is consistent with the fact that almost one-quarter of families who do drop out do so within the first three months of Healthy Start. Some programs do appear to be successful at engaging families during this critical 3 months, however. For example, 12 programs retained over 80% of their families for at least 3 months; this drops to only 6 programs by 6 months after enrollment.

While HFA does not designate a certain retention rate that programs must meet, research clearly shows that the benefits for families increase with longer duration of home visiting services (Gomby, Culross, & Behrman, 1999).

We also conducted analyses to explore whether (for the 2006-07 cohort) families who left the program before receiving at least 12 months of service were different from those families who remained in Intensive Services in terms of the following characteristics (see Tables 21 & 22): Race/ethnicity (Hispanic/Latino vs. Caucasian); primary language (English vs. Spanish); marital status (married vs. single); teen parent status; education level (mothers with greater than a high school education vs. mothers with less education); employment status; number of risk factors; and whether screening occurred prenatally vs. postnatally.

As shown in Table 21, results indicated that at 12 months after program enrollment, there were no significant differences in retention of families with different racial/ethnic backgrounds (for the 2005-06 cohort reported in the FY 2006-07 status report, Hispanic/Latino families had been found to be more likely to be retained). Additionally, there was a marginally significant trend this year for Spanish-speaking families to be *less* likely to be retained (44%) compared to English speaking families (50%). As shown in Table 22, families headed by married parents also were significantly more likely to remain in the program after one year (59%) compared to families headed by single mothers (50%, although this is significantly higher than The retention rate for single mothers reported in the 2006-07 report, 44%). During this fiscal year, families with no employed parent were significantly less likely to be retained (47%) compared to families with at least one parent employed (55%). There was a trend<sup>12</sup> for mothers with less than a high school education to be less likely to be

retained (49%) compared to those with at least a high school diploma (55%).

However, there was no significant difference in the percentage of teen vs. non-teen mothers retained for this fiscal year; additionally, whether screening occurred pre- vs. postnatally did not influence retention rates. In the 2006-07 fiscal report, there were no differences in retention for families with varying employment or educational status, but teen mothers were less likely to be retained. Together, these results suggest that Healthy Start may need to focus its retention efforts on families that are higher in demographic risk, although programs appear to be doing a good job retaining high-need teen mothers in the program. Further, the total number of risk factors was not significantly associated with whether families left the program,<sup>13</sup> suggesting that there are other key factors in addition to risk factors that influence family retention.



## Summary & Conclusions

### HEALTHY START OUTCOMES

As has been demonstrated in over 10 years of program evaluation, results clearly show that children and families benefit from Healthy Start services. Families who have engaged in Intensive Service home visiting

<sup>12</sup> At least HS education vs. no HS diploma/GED, ( $X^2(1)=3.31$   $p=.07$ );

<sup>13</sup> Logistic regression, total number of risk factors predicting retention at 12 months (yes/no);  $B=-.058$ ,  $p=.16$



for at least 6 months show positive outcomes in a variety of key domains, including parent-child interactions, health and health care, receipt of timely immunizations, parenting skills, and healthy child development. Healthy Start appears to be effective in supporting the development of positive home environments for children and supporting parents to engage in important early-literacy activities such as reading frequently to their children.

Data from national surveys of higher-risk families indicate that the results for families participating in Healthy Start are better than would be expected in the absence of such a program, especially in terms of child health, immunizations, and early literacy activities.

One area that may continue to need improvement is in the identification of domestic violence, mental health, and substance abuse issues. While those families who had an identified need in these areas were consistently linked with resources, the number of families statewide who were identified as being in need was quite low. Given the relatively large number of families who self-identify as being at risk for depression, more consistent screening for clinical depression and affiliated mental health problems should be considered. It is notable, however, that parents at risk for depression appear to respond to Healthy Start services quite positively, and show outcomes that are similar to, or better than, those for parents not indicating risk for depression.

#### SCREENING AND ASSESSMENT SYSTEM

Healthy Start builds on family strengths, implementing a legislative philosophy designed to create wellness for all Oregon children and families. Information from participating programs shows family interest in and need for Healthy Start service is substantial, as indicated by the high rates of family participation in screening and refer-

ral services. Further, although a number of families decline to participate in Healthy Start Intensive Services, it is clear those families most in need of Healthy Start are agreeing to participate in services. This suggests the ongoing importance of continuing to provide *a continuum of service*, ranging from non-stigmatizing screening and referral to long-term support services beginning prenatally and continuing through the early childhood years.

Healthy Start represents a unique statewide screening system to identify families in need very early in their child's life. The program was highly successful in screening families during FY 2007-08, screening more families than any prior year. Key to successful and efficient screening is creating community partnerships with hospital, health clinics, private doctors' offices and other points of entry into the Healthy Start program. Current efforts to educate pediatricians and the medical community about the importance of Healthy Start, and to engage these partners in screening activities, are important to maintain in order to build these critical connections.

Capacity for Intensive Services has also been an issue for programs this year, with over 600 families unable to be served because of funding limitations of program capacity. The difficult economic climate in Oregon at the writing of this report suggests that the number of families in need during FY2008-09 will continue to increase.

#### ENGAGEMENT AND RETENTION

Healthy Start continues to do a good job engaging and serving families who are at higher risk for negative childhood outcomes. Intensive Service families are clearly at much higher demographic risk compared to either the general Oregon population or to families who receive only screening and referral services. Almost 25% of



Intensive Service families had four or more risk factors measured by the NBQ, indicating substantially increased risk for child maltreatment.

Another feature of successful home visiting programs is the ability to deliver regular, frequent, home visits to families. During the past two years, targeted efforts at monitoring programs and supporting staff to ensure families received the correct number of home visits continues to pay off. This year, the state came very close to meeting the HFA standard for home visit completion (75% of families receiving at least 75% of expected home visits), with 72% of families receiving the appropriate number of visits.

Retaining families in Healthy Start services for the duration of the program continues to be a challenge for programs. For families enrolled during 2004-05 and during 2005-06, retention rates were similar: About 76-78% of Intensive Service families were still participating 3 months following enrollment, but by 6 months this figure dropped to 64-65%, and by one year, only about half of families were still engaged. One-year retention rates for the 2005-06 cohort were somewhat higher than in previous years, however (52% vs. 46%), signaling some progress in long-term retention. Some types of families appear to remain in services longer: Spanish speaking families (56% retained at 12 months); married mothers (59% retained at 12 months); and families with slightly higher education (55% of mothers with at least a high school education retained at 12 months). Early engagement is clearly a key issue, at least for some programs. Programs that are more successful at engaging families and keeping them in services for at least 90 days might be a good resource for providing technical assistance to programs that continue to struggle in this area. Further, given the tendency for families to leave once children are about one year of age, additional train-

ing or program development focused on supporting families with older toddlers may be needed. However, it should also be noted that as retention rates for families improve, without additional funding for capacity expansion the programs' ability to enroll new families will be reduced. Thus, retention of families for the full three years of services, which is one of the keys to longer term positive outcomes, may have the unintended consequence of restricting the number of **new** families that can be served (unless program capacity is increased).

## CONCLUSIONS

Results show a number of areas in which Oregon's Healthy Start program has had considerable success. Outcomes for families participating in Intensive Services are generally quite positive across a variety of domains that have been shown in the research literature to be important predictors of child maltreatment, school readiness, and longer-term outcomes such as school success, criminality, and teenaged pregnancy (Shonkoff & Phillips, 2000). These results suggest that the core elements of Healthy Start's home visiting programs are working to support families to be successful.

A review of Table B (a summary of progress towards HFA standards) shows that of the HFA standards that are monitored by the evaluation,<sup>14</sup> the statewide Healthy Start program meets or exceeds the performance standard in the following areas:

- The program maintains a detailed description of target population and current service population

<sup>14</sup> Additional HFA standards are monitored by the program but are not part of data submitted to the evaluation.

- Eligibility screens are conducted within 2 weeks of child's birth
- The program defines and monitors acceptance and retention rates
- First home visits are delivered within 90 days of the child's birth
- The program analyzes and monitors who drops out of services and why
- The program provides culturally competent services
- The program has a regular process to solicit parent feedback regarding services
- The program uses standardized developmental tool to monitor child development
- Children with suspected developmental delay are tracked and/or referred for support
- More than 80% of children have a medical home
- More than 80% of children have up to date immunizations
- The majority of families receive needed referrals
- The program conducts an annual evaluation of outcomes.

There were only two areas in which standards were not met: identifying (screening) 75% of the target population, and ensuring that 75% families receive 75% of expected home visits. The screening goal is quite ambitious given current program funding levels, coupled with the legislative mandate to expend the majority of program funds on Intensive Service families. Yet, the screening system continues to reach more families every year. Home visit completion rates came very close to meeting HFA standards, and showed improvement over last year.

As programs continue to monitor home visit completion and develop systems for ensuring home visits are successfully delivered, this area is likely to continue to improve.

The state's investment in accreditation has paid off in greater consistency and quality of services across the state, although variability in both process and outcome indicators suggests that there continues to be room for improvement. Research on home visiting programs shows these services *can* work; however, the quality and intensity of services must be held at high levels. This will be particularly challenging in the upcoming biennium, which is likely to involve fiscal challenges.

Home visiting services that are delivered in conjunction with other community supports such as specialized services for serious issues (e.g., substance abuse, domestic violence, mental illness), high-quality day-care or preschool, early intervention educational services for developmental delays, health care providers, and other resources are generally acknowledged to create the best outcomes for children. As the state's largest consistent screening and identification system, Healthy Start plays a key role as a common point of entry into early childhood, parenting, and other services for families. Strengthening the role of Healthy Start in being able to consistently identify families and children at risk can benefit the state early childhood system as a whole by eliminating duplicative screening processes and streamlining referrals. This screening process could be strengthened even further if it was expanded to additional families, and if additional community partners, especially hospitals and medical facilities, participated in the screening process.

However, it is important to recognize that Healthy Start cannot be "everything for every family" and as such can sometimes

be most effective by helping families access an array of community based services. In this area, strengthening the skills of Healthy Start workers in identifying serious family issues such as domestic violence, mental health, and substance abuse may be important. However, identification is only a first step; success for these families relies on whether Healthy Start can successfully connect families with needed resources. Community-wide work in building collaborations to provide these services to families, as well as significant investment in resources for mental health, substance abuse, and other critical issues is needed. This effort will require widespread backing for an effective system of supports for children and families, within which Healthy Start can play an important, but not isolated, role.

Overall, data collected for this evaluation document that Healthy Start provides important resources to families at the birth of their first child. Healthy Start programs continue to demonstrate positive outcomes for high-risk families by supporting the de-

velopment of positive home environments, early literacy activities, health care, and positive parent-child interactions, all of which are critical to prevention of child abuse. Continued support for Healthy Start's effective screening, referral, and intensive home visiting component is critical for supporting Oregon's children in their most vulnerable early years.

As 2009 begins, the economic climate in Oregon suggests that the need for Healthy Start and other support services for the youngest children and their families will increase, while state funding to meet this need may not be readily available. During tight economic times, it is important to consider the significant long-term cost savings that can be attained through investments in Healthy Start (Rolnick & Grunewald, 2003). Oregon's investment in its youngest children, and in prevention, has the potential to provide lasting benefits if such investments are continued through the current economic downturn.

**Table D. Progress Toward Selected HFA Critical Elements—FY 2007-08**

HFA Element for which the evaluation provides data	Origin of the data	Statewide result for the corresponding HFA element, and the table where this information can be found for individual programs	HFA standard for the element
1-1.A. Description of target population	First birth data from Oregon Department of Human Services Web site ( <a href="http://www.dhs.state.or.us/dhs/ph/chs/data">www.dhs.state.or.us/dhs/ph/chs/data</a> ) downloaded October 2008 for the July 2007 – June 2008 fiscal year.	<b>Table 1:</b> <ul style="list-style-type: none"> <li>20,324 eligible births in 34 Healthy Start counties funded during 07-08.</li> </ul>	The program has a description of the target population and identified organizations within the community in which the target population can be found, which, while sufficient for its needs could be more comprehensive (are comprehensive and up to date).
	County demographic data from the Oregon Department of Human Services Web site.	<ul style="list-style-type: none"> <li><a href="http://www.dhs.state.or.us/dhs/ph/chs/data">www.dhs.state.or.us/dhs/ph/chs/data</a></li> </ul>	(Same as above).
1-1.B. Identification of target population	The number of families offered service is the sum of screened families plus additional contacts and screening refusals documented annually by programs.	<b>Table 2</b> <ul style="list-style-type: none"> <li>12,406 families offered services (61% of eligible)</li> </ul>	The system of organizational agreements enables the program to identify at least 75% of the participants in the target population for screening or assessment.
	Clients with a New Baby Questionnaire submitted to NPC Research with a screening date between July 1, 2007, and June 30, 2008, plus the program counts of the number of families who are screened but decline to participate in the evaluation are counted in the screening rate.	<b>Table 1:</b> <ul style="list-style-type: none"> <li>9,750 (49% of eligible) families screened</li> </ul>	

HFA Element for which the evaluation provides data	Origin of the data	Statewide result for the corresponding HFA element, and the table where this information can be found for individual programs	HFA standard for the element
<p>1-1.D. Screenings/ Assessment to determine eligibility for services occur prenatally or within first two weeks of birth of the baby</p>	<p>Screen date is taken from the New Baby Questionnaire (Item 1) or from the Family Manager data system.</p> <p>Date of birth is taken from the New Baby Questionnaire (Item 2), or in cases in which birth date is missing, the Family Manager system, or the Family Intake form.</p> <p>Time to screen is calculated as the number of days between birth date and screening date. Prenatal screens are counted as zero days.</p>	<p><b>Table 3:</b></p> <ul style="list-style-type: none"> <li>• 2,842 (29%) screened prenatally</li> <li>• 5,823 (60%) screened within 2 weeks of birth</li> <li>• 1,027 (11%) screened after two weeks.</li> <li>• Overall: 89% screened at or before 2 weeks of age.</li> <li>• Median time to screen = 1 day</li> </ul>	<p>80% of eligibility screenings or assessments occur either prenatally or within the first two weeks after the baby's birth.</p>
<p>1-2.A. Acceptance rate of participants</p>	<p>Healthy Start Intensive Service "Accepted" by parent, from NBQ (Item D).</p>	<p><b>Tables 9, 18 &amp; 19:</b></p> <ul style="list-style-type: none"> <li>• 49% of eligible families accepted service at the time of screening</li> </ul>	<p>The program defines, measures, and monitors its acceptance rate and evidence indicates acceptance rates are measured in a consistent manner and at least yearly.</p>
<p>1-2.B. Analysis of who refused the program and why (of those eligible)</p>	<p>Healthy Start Intensive Service "Declined" by parent, from NBQ (Item D).</p> <p>Demographic data are obtained from the New Baby Questionnaire [age (#7a &amp; b), ethnicity (#8), language spoken (#10), marital status (#13), education level (#15), and employment status (#16 &amp; 17)].</p>	<p><b>Tables 18, 19 A &amp; B</b></p> <ul style="list-style-type: none"> <li>• Percentage within each ethnic group who declined (vs. those who accepted):</li> <li>• Hispanic families were more likely to accept services (57%) compared to White/Caucasian families (45%)</li> <li>• Teenage mothers were more likely to accept services (57%) compared to non-teen mothers (47%)</li> <li>• Mothers with less than a high school education were more likely to accept services (57%), compared to those with more education (45%).</li> </ul>	<p>The program annually analyzes who refused the program and why. This analysis relies on demographic and informal sources to identify those who refused (ideally, the analysis also addresses programmatic, demographic, social and other factors).</p>

HFA Element for which the evaluation provides data	Origin of the data	Statewide result for the corresponding HFA element, and the table where this information can be found for individual programs	HFA standard for the element
1-3. First home visit occurs prenatally or within 3 months of the birth of the baby	<p>Date of first home visit is on the Family Intake Form (item 1), or if missing, is taken from the Exit Form. Baby's birth date comes from the New Baby Questionnaire (item 2) or the Family Intake form.</p> <p>Time to first visit is calculated as the number of days between first home visit date and baby's birth date.</p>	<p><b>Table 11:</b></p> <ul style="list-style-type: none"> <li>94% (1,072 families) received first visit prenatally or within 3 months of the birth of the baby</li> </ul>	80% of first home visits occur within the first three months after the birth of the baby.
3-4.A. Participant retention rate	<p>Retention rates calculated for all families served in IS during 05-06 and 06-07. Service is defined in this analysis as anyone having a first home visit.</p> <p>Date of first home visit is on the Family Intake Form (item 1), or if missing, is taken from the Exit form.</p> <p>Date of last home visit is on the Exit Form.</p> <p>Reasons for leaving are taken from the Exit Form. Intensive Service clients without an Exit Form are coded as "still in service."</p>	<p><b>Table 20 A (05-06):</b></p> <ul style="list-style-type: none"> <li>78% remained in after 3 months of service</li> <li>64% remained in after 6 months of service</li> <li>43% remained in after 12 months of service.</li> <li>33% remained in after 18 months of service.</li> <li>26% remained in after 24 months of service</li> </ul> <p><b>Table 20 B (06-07):</b></p> <ul style="list-style-type: none"> <li>76% remained in after 3 months of service</li> <li>65% remained in after 6 months of service</li> <li>52% remained in after 12 months of service.</li> </ul>	The program defines, measures, and monitors its retention rate, and evidence indicates retention rates are measured in a consistent manner and at least yearly (more than once a year).
3-4.B. Analysis of which families drop out of the program and why	<p>Reasons for leaving are taken from the Exit Form.</p> <p>Demographic Characteristics of exited families are taken from the New Baby Questionnaire (Items 7b, 8, 10, 13, and 16).</p>	<p><b>Table 23:</b></p> <p>1,177 families exited the program during FY 2007-08. Reasons for exiting the program included:</p> <ul style="list-style-type: none"> <li>39% parent no longer interested</li> <li>21% family moved out of county</li> </ul>	The program annually analyzes who drops out of the program and why. Analysis relies on demographic and informal sources to identify those who dropped out (ideally analysis also addresses programmatic, de-

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		<ul style="list-style-type: none"> <li>• 11% family was unable to be contacted by the program</li> <li>• 14% of children reached the age limit of the program</li> </ul> <p><b>Tables 21 &amp; 22:</b></p> <p>Within each subgroup, the percentage of those who exited:</p> <ul style="list-style-type: none"> <li>• Hispanic/Latino families were less likely to have dropped out of service at 12 months post-enrollment (46%) compared to Caucasian families (48%) or to families of other racial/ethnic backgrounds (52%)</li> <li>• Spanish speaking families were less likely than English speaking families to have dropped out of the programs at 12 months post-enrollment (44% v. 50%).</li> <li>• Teen mothers were less likely than non-teen mothers to have dropped out of the programs at 12 months post-enrollment (53% v. 47%).</li> <li>• Single mothers were less likely than married mothers to have dropped out of the programs at 12 months post-enrollment (41% v. 50%).</li> <li>• Mothers with a high school education were less likely to have dropped out of the program at 12 months post-enrollment (45% v. 51%).</li> <li>• Employed parents were less likely to have dropped out of the program at 12 months post-enrollment (45% v. 53%).</li> <li>• Families screened prenatally were less likely to have dropped</li> </ul>	<p>mographic, social and other factors).</p>



HFA Element for which the evaluation provides data	Origin of the data	Statewide result for the corresponding HFA element, and the table where this information can be found for individual programs	HFA standard for the element
		out of the program at 12 months post-enrollment (46% v. 49%).	
4-2B. Families receive appropriate number of home visits for their assigned level of service	Home visit tracking forms completed by FSWs and submitted to NPC monthly or quarterly.	<b>Table 11:</b> 72% of families received the expected number of home visits given their service level	75% of families receive at least 75% of the appropriate number of home visits based on service level (e.g., family on Level 1 receives at least 3 visits per month).
5-1. Description of current service population	<p>Demographic data are from the New Baby Questionnaire (# 7b (age), 8 (ethnicity), &amp; 10 (language spoken at home)).</p> <p><b>Additional data</b> describing the current service population is presented in Tables 5-8 (screened families) and 12-15 (Intensive Service families).</p>	<p><b><u>All Screened Families:</u></b></p> <p><b>Table 5:</b></p> <ul style="list-style-type: none"> <li>• African American (3%)</li> <li>• Hispanic/Latino (18%)</li> <li>• Asian (4%)</li> <li>• American Indian (1%)</li> <li>• Caucasian (68%)</li> <li>• Multiracial (5%)</li> <li>• Other (1%)</li> </ul> <p><b>Table 6:</b></p> <ul style="list-style-type: none"> <li>• English spoken at home (81%)</li> <li>• Spanish spoken at home (14%)</li> <li>• Other language spoken at home (4%)</li> <li>• Teen Mothers (9%)</li> <li>• Single Mothers (53%)</li> <li>• Less than high school education (23%)</li> </ul> <p><b><u>Intensive Service Families</u></b></p> <p><b>Table 12:</b></p> <ul style="list-style-type: none"> <li>• African American (2%)</li> <li>• Hispanic/Latino (36%)</li> <li>• Asian (4%)</li> <li>• American Indian (1%)</li> <li>• Caucasian (50%)</li> <li>• Multiracial (5%)</li> </ul>	Program has a description of the current service population that addresses cultural characteristics, racial/ethnic characteristics, and linguistic characteristics.

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5-1. Description of current service population		<b>Table 13:</b> <ul style="list-style-type: none"> <li>English spoken at home (64%)</li> <li>Spanish spoken at home (32%)</li> <li>Other language spoken at home (3%)</li> <li>Teen Mothers (18%)</li> <li>Single Mothers (75%)</li> <li>Mothers with less than a high school education (44%)</li> <li>Families at or below poverty level (80%)</li> </ul>	
5-4.B. Culturally competent practices/service, including participant input	Most recent responses on Parent Survey II-B (#7).	<b>Table 34</b> <ul style="list-style-type: none"> <li>62% of parents agreed that their home visitor encouraged them to learn about their culture</li> <li>92% of parents agreed that their home visitor respected their cultural and religious beliefs</li> <li>91% of parents agreed that their home visitor provided materials in their primary language</li> </ul>	The program reviews its practices for cultural competency and includes direct input from the participants on (at least) 3 of the following: culturally sensitive practice, materials, communication, and staff-participant interaction. Review could be more comprehensive.
6-2A-C. The home visitor and participant collaborate to identify participant strengths, competencies, needs, services to help address those needs, and goals for home visitation	Most recent responses on Parent Survey II-B, #7. Ratings of staff strength orientation are assessed by parent responses.	<b>Table 35:</b> <ul style="list-style-type: none"> <li>86% of parents agreed that their home visitor helped them to see strengths in themselves they didn't know they had</li> <li>89% of parents agreed that their home visitor helped them to use their own skills and resources to solve problems</li> </ul>	The home visitor and participant collaborate to identify participant strengths and competencies, assess participants' needs, and set goals for home visitation.

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6-4. Program promotes positive parenting skills, parent-child interaction, and knowledge of child development	Most recent responses on Parent Survey II-A, # 11 & 12. Most recent response on Parent Survey II-A, #4. Cumulative HOME score at 12 months.	<b>Table 34:</b> <ul style="list-style-type: none"> <li>79% of parents reported improved parenting skills after 6 months in the program</li> <li>71% of parents reported improved ability to help their child after 6 months in the program</li> </ul> <b>Table 35:</b> <ul style="list-style-type: none"> <li>85% of families had positive parent-child interactions after 6 months in the program</li> <li>84% of families had a “good” or higher score on the HOME at 12 months</li> </ul>	Standards related to worker provision of information. Data suggest positive outcomes in the parenting domain.
6-5.B. Use of standardized developmental screen/tool to monitor child development	Most recent response on Family Update (#37b).  <u>Note:</u> This information is based on the Family Support Worker’s most recent administration of the ASQ.	<b>Table 28:</b> <ul style="list-style-type: none"> <li>91% of children were within the “normal” range of development</li> <li>93% of all age-eligible children received at least one ASQ assessment</li> </ul>	The program uses a standardized tool at specified intervals to monitor child development for target children in the program unless developmentally inappropriate.
6-7.B. & 6-7.C. Documentation of children suspected of having a developmental delay, program follows through with appropriate referrals/services	Most recent responses on Family Update (#34, 36).	<b>Table 29:</b> <ul style="list-style-type: none"> <li>86 children had an identified developmental delay; 80% of these children were reported as receiving early intervention services</li> </ul>	Consistent evidence that the program routinely tracks target children suspected of having a developmental delay.

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7-1.C. Participating children have a medical provider	Most recent response on Family Update (Primary caregiver = #29, well-child check-ups = #21, emergency room for routine care = #24).	<b>Table 24</b> <ul style="list-style-type: none"> <li>98% of children have health care provider</li> <li>93% received well-child check-ups</li> </ul> <b>Table 25</b> <ul style="list-style-type: none"> <li>6% frequently use emergency room for routine care</li> </ul>	80% of target children have a medical/health care provider.
7-2.B. Immunizations for participating children are up to date	Most recent response on Family Update (Up to date immunizations = #20a). FSWs primarily use parent immunization cards or the ALERT system for immunization information. Calculations for up to date immunizations by age 2 are based on responses to #20a for all target children 2 years or older (as calculated by date of birth and date of Family Update).	<b>Table 26:</b> <ul style="list-style-type: none"> <li>90% of children had up to date immunizations; 8% had some immunizations, but not up to date</li> <li>93% reported to be fully immunized by age 2</li> </ul>	80% of target children have up-to-date immunizations.
7-3.A. Program connects participants to appropriate referral sources and services	Family Support Workers ratings on the 6-month Family Update #11.	<b>Table 32:</b> Percent who needed and were connected with service at 6 months: <ul style="list-style-type: none"> <li>Dental Insurance (77%)</li> <li>Education Assistance (91%)</li> <li>TANF (97%)</li> <li>Housing Assistance (85%)</li> <li>Job Training (91%)</li> <li>Domestic Violence (96%)</li> <li>Mental Health (93%)</li> <li>Medicaid/OHP (98%)</li> </ul>	Isolated instances found when participants needing referral were not connected to appropriate services in the community.
GA-3. Program has mechanism in place for families to provide feedback	The family provides ratings of satisfaction with staff on the Parent Survey II B (#7) Parent survey ratings of how	<b>Table 36:</b> <ul style="list-style-type: none"> <li>93% of parents agreed that their home visitor worked with them to meet their needs</li> </ul>	The program has mechanisms for participants to provide input to the program and at least includes participant satisfaction

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lized input into program	<p>helpful Healthy Start home visitors are in a variety of areas (Parent Survey II-B #6).</p> <p>On the Parent Survey II, families can write comments about the program including: (1) What do you think is the best thing about Healthy Start? (2) How could Healthy Start be better? (3) Is there anything else you want to tell us?</p>	<ul style="list-style-type: none"> <li>98% of parents agreed that their home visitor helped them to see they are good parents</li> <li>97% of parents agreed that their home visitor encouraged them to think about their own personal goals or dreams</li> </ul> <p><b>Table 37:</b> Parents rated Healthy Start as helpful in:</p> <ul style="list-style-type: none"> <li>Obtaining basic resources (80%)</li> <li>Encouraging social support (81%)</li> <li>Providing parenting information (96%)</li> <li>Help with emotional issues (77%)</li> <li>Help with education/job assistance (71%)</li> </ul> <p>Parent open-ended feedback were compiled, with identifying information removed, and electronically sent to programs on January 5, 2009.</p>	tisfaction surveys.
GA-5.A. Program routinely reviews progress towards its program goals and objectives	Annual status report (this document).	<ul style="list-style-type: none"> <li>Programs should review annual status report</li> </ul>	The program conducts an analysis of program goals and objectives at least annually.

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