

Healthy Start 2003 – 2004 Status Report Volume I: Report Narrative

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*Research designed to promote effective decision-making by policymakers
at the national, state and community levels*

Acknowledgments

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

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

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

“Having someone to share problems, worries, joys—the experience of parenthood. My worker is always there to listen to me.”

“Having someone there with resources and knowledge, someone to talk to and to trust and to give me a push when I need it.”

“[My Healthy Start Worker] has inspired me to make a better life for myself and [my child]. It has been a great support for me, and I’ve learned so much about my son.”

“They’re [Healthy Start] there when you need them for anything – support, things, helping with finding a job, etc.”

“It [Healthy Start] really helps first time mothers learn what to do with their babies.”

“They [Healthy Start] help me raise my child to be healthy and smart. I might not do everything right and I don’t always remember what I’m supposed to do with my child, but Healthy Start helps me and gives me ideas for things I can do with my child.”



“The constant feeling that I have the support and help I need. Knowing that they are helping me by explaining my child’s development.”

“Just knowing that the help is there if I need it. I believe the program builds a foundation that parents can build upon.”

“It [Healthy Start] is a great way to have an adult conversation without being judged about my baby. I feel like if I need to, I can call and talk to [my Healthy Start worker] anytime.”

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EXECUTIVE SUMMARY

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 types and intensity of support that are 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 (Universal Basic Services) to longer-term more Intensive Home Visiting Services (Intensive Services) that continue throughout the early childhood years.

The ultimate goals of Healthy Start are to: (1) Reduce the incidence of 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:

- (a) When services are provided to families most at risk for poor child outcomes; and
- (b) When high-quality Intensive Services are provided to families for a period of several years.

During FY 2003-2004, Oregon’s Healthy Start program embarked on a credentialing process with the national Healthy Families America initiative that, when complete, will ensure that Oregon’s Healthy Start



program meets the highest research-based standards for home visiting services to parents and their children.

This Executive Summary provides a snapshot of the key successes and challenges for Healthy Start during FY 2003-04. First, the evaluation addresses the question: How well was Healthy Start implemented during FY 2003-04? Programs that are not successfully implemented are unlikely to produce the expected outcomes. Second, the evaluation presents data showing outcomes for participants related to the two primary Healthy Start goals of reducing child maltreatment and increasing school readiness.

PROGRAM IMPLEMENTATION & SERVICE DELIVERY RESULTS

Program implementation and service delivery success are monitored using a series of indicators that measure the success of the comprehensive assessment system, the number of families served, and the type and length of service received. Leveraging of community resources in the form of volunteers, funding, and in-kind resources is also a key element of successful program implementation.

Voluntary Services to All First-Time Parents

Healthy Start continues to increase the effectiveness of its system for contacting and offering services to first-time parents. The number of families offered services by Healthy Start **increased dramatically** during FY 2003-04, from 7,301 families in FY 2002-03 to 10,090 in FY 2003-04.

In FY 2003-04, 55% of eligible families were contacted, and 40% were screened, using the OCP and NBQ New Baby Ques-

Healthy Start was funded in all 36 Oregon counties during FY 2003-04¹ and successfully contacted over 10,000 families.

tionnaire, for risk characteristics and offered appropriate services. Almost half of these screenings (44%) took place prenatally or within two weeks of the child's birth. Healthy Start emphasizes the voluntary nature of all services, and thus families have the right to decline to participate in screening and/or services. In FY 2003-04, about 22% of families who were initially contacted by Healthy Start declined to participate.

Effective Screening to Identify Higher-Risk Families

Healthy Start's comprehensive screening and assessment system effectively identified families and children at greatest risk for poor outcomes, including child maltreatment and poor school performance.

Of those families screened, **60% screened at higher risk**. A higher proportion of Hispanic/ Latino (89%) families screened at higher risk, compared to White/ Caucasian families (65%).

Assessing all potentially eligible families remains a challenge. Of those families who screened at higher risk, 34% were assessed using the Kempe Family Stress Inventory, which identifies sources of stress and support for families. Eighty-four percent of these higher-risk families had significant risk factors for negative child outcomes, and thus were eligible for Intensive Home Visiting Services.

The chance of a founded report of child maltreatment was **two times** greater for families who had been identified during screening as having any two risk characteristics (in comparison to families with no risk characteristics), and **five times** greater for families with six or more risk factors.

Engaging Families in Service

Healthy Start is successfully engaging higher-risk families with Intensive Services. Families receiving Intensive Service are significantly more likely to be single, teens, less educated, and poorer, than families who receive only Universal Basic Services.

Healthy Start has a very low rate of refusals and a high engagement rate for its Intensive Home Visiting Services:

- 91% of families who eligible for Intensive Services agreed to participate.
- 95% of families who accepted Intensive Services received at least 3 months of service.

Healthy Start Intensive Service families remain in services for over one year, on average, an increase from prior years. Higher-risk Intensive Service families remained in the program an average of 15.2 months. This figure likely underestimates the actual length of participation, by including some programs that have only served families for about a year.

Leveraging of Resources

Healthy Start sites successfully mobilized and leveraged resources in support of families. Resources include space, materials, staff, and money. Additionally:

- During FY 2003-04, reimbursement from federal Title XIX Administrative Claiming funds yielded \$2,702,240 – a \$300,000 increase over last year.
- Communities invested local resources to support, at a minimum, 20% of the local program operations through financial contributions, in-kind contributions, and donations of goods and volunteer hours.

The Need for Healthy Start Is Great

The need for Intensive Home Visiting Services may be greater than the ability of Healthy Start to provide them. Specifically, **47% (2,750) of families who received only Universal Basic Services had at least one risk factor** and were potentially eligible for Intensive Services.

OUTCOMES FOR CHILDREN AND FAMILIES, FY 2003-04

A series of outcome indicators measure Healthy Start's statewide progress toward two key Oregon Benchmarks: Reduced incidence of child maltreatment and improved school readiness. The results found for FY 2003-04 are summarized in the following highlights.

Child Maltreatment Outcomes

Healthy Start families experience lower rates of child maltreatment than comparable non-participating families.

The child abuse rate for 0-2 year old children who were **not in Healthy Start is almost double the rate for Healthy Start children** and is similar to national statistics that show an incidence rate of 26 per 1,000 children for this age group, regardless of family risk level.

- 98.8% of all Healthy Start children, regardless of family risk characteristics, were free from substantiated reports of maltreatment. The remaining 1.2% (12 per 1,000 children) had confirmed cases of child maltreatment. In comparison, 98.0% (20 per 1,000) of the non-served children aged 0–2 years in the same counties were free from substantial reports of maltreatment.
- 97.6% of higher-risk Intensive Service families with children aged 0–2 were free from substantial reports of maltreatment.

Risk Factors for Child Maltreatment

The child abuse rate for 0-2 year old children who were not in Healthy Start is almost double the rate for Healthy Start children.

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 (Daro, 1996). These include: parenting skills, parent stress, and serious family issues such as substance

abuse and family violence. These results are summarized below.

Positive Parenting

Positive, supportive interactions increase children's well being and are related to reductions in child maltreatment (Shonkoff & Phillips, 2000). By the time their child is 6 months of age:

- Healthy Start workers report that 77% of Healthy Start's higher-risk families consistently engage in positive, supportive interactions with their children.
- 84% of higher-risk families report that they believe they have improved their parenting skills.

Parenting Stress

Participating parents report a significant decrease in parenting-related stress from the time of the child's birth to the 6-month birthday.

Substance Abuse & Other Issues

Healthy Start helps to connect families with community resources to address serious family issues. For example, fewer parents need services for substance abuse after one year in the Healthy Start program. Healthy Start workers reported that



of a subset of Intensive Service families with 12-month data, 130 (23%) were in need of substance abuse services at program intake; after 12 months of services, only 107 of these still needed this service.

However, more families self-reported needing help with domestic violence and other family issues than were identified by

Family Support Workers, suggesting a need for more systematic approaches to identification and referral for these issues.

School Readiness Outcomes

Four primary domains related to school readiness are tracked: (1) children's health; (2) children's growth and development; (3) the ability of parents to provide developmentally supportive environments for their children; and (4) adequacy of families' basic resources. These results are presented below.

Health Outcomes

Pregnant women in Healthy Start received better prenatal care for subsequent births. **Eighty-four percent** of Intensive Service mothers received early comprehensive prenatal care for their second pregnancies, while only 75% had received early comprehensive prenatal care for their first pregnancies.

Children living in higher-risk Intensive Service families were linked to appropriate health care resources, and received regular health care and immunizations.

After 12 months of service, Healthy Start workers reported positive findings on a variety of health-related outcomes:

- **96% of Healthy Start's children from families receiving Intensive Service have a primary health care provider.**
- **94% of families have some type of health insurance coverage** (including 77% who were enrolled in the Oregon Health Plan), and 68% of the parents are linked to a primary health care provider. Nationally, only about 85% of poor children under age six have health insurance coverage (Child Trends, 2004).

- **75% of Intensive Service families never used costly emergency room services** for routine health care, and only 3% reported regular use of emergency room services for routine health care.

Workers also report that children living in higher-risk Intensive Service families are receiving regular health care and immunizations. After 12 months of service, Healthy Start workers report that:

- **91% of children are receiving regular well-child check-ups.** National data reports that only 84% of children under age 6 nationally received a well-child visit during the past year (Child Trends, 2004). For poor children this rate is even lower (81%).
- **92% of Healthy Start's 2-year-olds are fully immunized.** In contrast, 72% of all Oregon 2-year-olds were fully immunized in 2003, as reported by the U. S. National Immunization Survey (NIS, 2003). Nationally, about 81% of children were fully immunized by age 3, although rates for poor children are lower (76%; Child Trends, 2004).

Healthy Growth and Development

All Healthy Start Intensive Service children receive regular developmental screenings. A large majority (88%) of these children



showed patterns of normal growth and development.

Further, those children with developmental delays were appropriately linked to early intervention. **Almost all (95%) Healthy Start Intensive Service children with identified developmental delays have been linked to early intervention services.**

Early Literacy and Learning

Family literacy activities are strong predictors of school readiness (Shonkoff & Phillips, 2000). The majority of Intensive Service families are effective in their role as their child's first teacher.

After 12 months of Intensive Service, **74% of Healthy Start's higher-risk families are creating learning environments for their young children that are rated as "well above average"** by their home visi-

66% of Healthy Start Intensive Service parents reported reading to their children at least daily, higher than the national average.

tor, as indicated by the scoring criteria for the Home Observation Measure of the Environment. This is higher than results found in other, comparable populations.

By age 2, **89% of higher-risk Intensive Service families read to their children at least three times per week**, and 100% of the children have three or more books of their own. Both of these are key indicators of a positive early literacy environment as measured by the Home Observation Measure of the Environment (Bradley & Caldwell, 1984).

66% of Healthy Start Intensive Service parents reported reading to their children at least daily; nationally, only about 50% of children under age 3 are read to daily, with much lower rates (40-46%) for African American parents, Hispanic parents, and parents with less than a college education.

Connecting Families with Basic Resources

Healthy Start staff work to identify families' needs for a variety of services, such as food and housing, medical services, educational and employment supports, and child-care. Generally, workers report that most families who needed these services at Intake are successfully connected with service at the 6-month follow-up survey. For example, after 6 months of Intensive Services, Healthy Start families showed:

- **An 87% decrease** in the number of families needing WIC
- **A 78% decrease** in the number of families needing health insurance
- **A 42% decrease** in families needing educational assistance

Parent Satisfaction

Parents are almost universally pleased with the services they receive from Healthy Start. For example, **almost all of the Intensive Service parents reported that Healthy Start “helped a lot” in better understanding their child’s behavior and feelings** (90%) and finding positive ways to teach and discipline their child (88%).

About half of the Intensive Service parents (39-49%) reported that Healthy Start helped “a lot” to provide access to basic household resources, basic child resources, and education, job training, and employment.

Parents reported that the emotional support and information provided by home visitors is invaluable. Several parents commented that without Healthy Start, they would not be making good choices for their children.

Outcome Differences for Minority Families

A few outcomes differed for Hispanic/Latino and White/ Caucasian families.² Many of these differences are consistent with national trends.

Healthy start workers reported that Hispanic/ Latino children were generally healthier, had better nutrition, and were far less likely to be exposed to passive smoke. However, Hispanic/ Latino parents were less likely to have a regular health care provider.

Hispanic/ Latino families were less likely to provide an environment that supports early literacy:

- Hispanic families were less likely to have books in the home, and were less likely to read to their children on a daily basis. This is consistent with national studies showing that Hispanic families are significantly less likely to provide these kinds of early literacy supports for children (Child Trends, 2004).
- Healthy Start workers rated Hispanic/ Latino families lower on ratings of the home environment, suggesting that these children are not exposed to the same level of developmental support as White/ Caucasian families.

Finally, Hispanic families self-reported lower levels of parenting skills at 6 months than White families. All other outcomes showed similar patterns for both Hispanic/ Latino and White/ Caucasian families.

SUMMARY & CONCLUSIONS

Summary

The outcome evaluation clearly shows that many children and families benefit from Healthy Start services. Healthy Start appears to be especially effective in linking families to needed basic resources; supporting the development of positive home environments for children; supporting parents to engage in important early-literacy activities such as daily reading; supporting positive parent-child interactions; supporting parents in ensuring their children are fully immunized; and increasing early, comprehensive prenatal care for subsequent pregnancies. The success of these efforts to

Pursuing HFA credentialing has the potential to greatly increase the level and consistency of quality across Healthy Start program sites.

create nurturing and supportive home environments and healthy children is reflected in demonstrated evidence that Healthy Start families have substantially fewer incidents of founded child maltreatment, compared to families not reached by Healthy Start.

Healthy Start continues to do a good job in engaging and serving families who are at higher risk for negative child outcomes. Families were enrolled, on average, for over a year, and most families were successfully screened in the critical early weeks of the child's development.

In addition, this year brought expansion of Healthy Start's quality assurance effort, including training and technical assistance to many new program sites, direct service staff, and program supervisors and managers. The quality assurance effort included a commitment to pursue credentialing with

the national Healthy Families America (HFA) initiative. Both the state OCCF office and local programs have committed to the credentialing process, which requires that all systems for program administration, staff supervision, and direct interactions with families be aligned with HFA's research-based standards (12 critical elements) for effective home visiting practice. Credentialing will help to ensure consistency in the quality of services delivered across sites in terms of key elements such as outreach to families, screening and assessment, frequency and intensity of home visits, staff training and supervision, and program administration and evaluation. Reviews of the home visiting research have consistently found that high-quality, intensive home visiting services delivered to those most in need are the most likely to show positive effects (Gomby, et al., 1999; Washington State Institute for Public Policy, 2004). Engaging in the credentialing effort is a systematic way to improve the quality of implementation of Healthy Start services across the program sites.

Universal Basic Service

Healthy Start builds on family strengths, implementing a legislative philosophy designed to create wellness for all Oregon children and families.

Information from participating counties shows family interest in and need for Healthy Start service is substantial. It is important for Healthy Start to continue to provide a *continuum of*



service, ranging from short-term, Universal Basic service during the period after birth to long-term support service beginning prenatally and continuing through the early childhood years, so that *all* families

with newborn children may benefit from this important community support. More programs have begun to offer prenatal services, a trend that appears to be positive in terms of providing early screening and successfully engaging families in services. This year, for the first time, programs were able to document the number of families who declined Healthy Start screening and/or service at the initial point of contact. These data suggest that about 22% of families declined services. While this does indicate that Healthy Start is perceived as voluntary, at least by many families, it also suggests that programs may need to continue to examine their techniques for approaching and engaging families initially, so that families in need do not “slip through the cracks.” Balancing consistent, comprehensive outreach within the context of a voluntary program will continue to be a challenge.

Comprehensive Screening and Assessment System

Counties vary considerably in their ability to identify and screen first-birth families. While the program as a whole offered services to 55% of eligible families, county rates ranged from 4% to almost 100%. OCCF’s Healthy Start staff have focused technical assistance to help local programs establish systems and develop linkages with key players (such as hospital systems and physicians) to ensure successful screening processes. Additionally, counties vary considerably in the rates with which families screened at higher risk are reached in order to complete the second phase of the assessment process (the Kempe Assessment), ranging from 0% to 91%. This second phase is critical to identify those families most in need of service. Program sites frequently note the lack of staffing resources for assessing all potentially eligible families as a challenge.

High Quality Long-Term Intensive Services for Higher-Risk Families

Higher-risk families have stressful lives that put parents and children at risk for poor outcomes. Multiple risk factors create an “environment of risk” that substantially reduces the chances for children’s healthy development and school success. Those families who have engaged in Intensive Service home visiting show positive outcomes in a variety of key domains, including parent-child interactions, family health, parenting skills, and healthy child development. Data from national studies of higher-risk families show that the results for families participating in Healthy Start are generally better than would be expected, especially in terms of child health, immunizations, early literacy activities, and rates of child maltreatment.

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). This suggests that the core elements of Healthy Start’s home visiting programs are working to support families—both higher and lower risk—to be successful. Challenges remain, however, in terms of continuing to build effective systems for identifying and contacting families, screening and assessing potentially eligible families, and retaining those families in services. County variability in terms of service delivery and implementation is large, and continued technical assistance is needed for those counties with implementation challenges. Counties need to develop effective

systems that unite community partners in a shared effort to ensure that all families have the opportunity to benefit from Healthy Start's services. Problems creating these systems continue to plague Healthy Start programs, and require considerable effort and energy to develop. Among smaller, more rural counties, establishing an infrastructure to identify and engage families is challenging, and the difficulty in doing so is reflected in relatively low rates of offering services to families among many of the "minimum grant" counties that strive to provide services to all families (not just first-birth families).

Along these lines, the credentialing process has great potential to address many of these challenges. Although in itself credentialing requires a considerable investment of program resources, the payoff in terms of greater consistency and quality of services is likely to be worth the effort. Criticisms of home visiting as a service delivery mechanism generally acknowledge that these services *can* work, but that quality and intensity of services must be at high levels. The credentialing process, which is based on extensive reviews of the home visiting research literature, clearly defines quality indicators that must be achieved *statewide* for a credential to be awarded. Efforts to obtain the HFA credential should continue to be supported.

Further, 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, healthcare providers, and other resources are generally acknowledged to create the best outcomes for children. The ability of Healthy Start workers to successfully connect families with these needed resources is an area that warrants further attention programmatically; estab-

lishing systems within communities to provide these supports to families requires Healthy Start to partner with other agencies and providers, and to continue to diversify and leverage funding beyond what is needed to simply deliver home visiting services. Such an approach requires widespread support for an effective system of supports for children and families, within which Healthy Start can play an important, but not isolated, role.



OVERVIEW OF THE HEALTHY START PROGRAM

HISTORY

Under Oregon House Bill (HB) 2008, passed in 1993 and reconfirmed under Senate Bill (SB) 555 in 1999, and HB 3659 in 2001, Healthy Start was established as a primary prevention program dedicated to creating wellness for Oregon children and their families. It was based on a national initiative (Healthy Families America) to support families through home visitation services to prevent child maltreatment and other poor childhood outcomes. Healthy Families America promotes positive parenting, healthy childhood growth and development, and enhances family functioning.

The first wave of projects in Oregon began in 1994, with eight funded sites. Since then, Healthy Start gradually expanded to all 36 Oregon counties, some of which are still progressing through their early implementation period. This report includes data from 31 counties that were fully implemented (that is, serving families) throughout the entire fiscal year 2003-04.

In 2002, Healthy Start undertook a Quality Assurance effort to create tools and methods for helping local Healthy Start in program improvement efforts. A committee of state staff; local program managers, supervisors, and direct service staff; and evaluation staff/ researchers created a draft Quality Assurance plan, and also recommended that the Oregon Commission on Children and Families (OCCF) use the Healthy Families America quality assurance process, which involves program self-assessment and external peer review of program operations. The following year, the Oregon Commission on Children and



Families created a Rebalance Committee to assess the fidelity of local programs to the original statewide Healthy Start model and to provide state agency support for program improvement efforts. This committee agreed that the best way to provide program consistency and a clear message of what Healthy Start services are, would be to become more explicitly aligned with the original research-based model, Healthy Families America. As well, over the past several years, Healthy Start had been participating in a Healthy Families America - Research Practice Council involving Healthy Families America sites nationally in evaluation efforts. As a result of these varied activities, OCCF decided to formally realign with the original program model and pursue Healthy Families America credentialing. Details about HFA components and the credentialing process will be described later in this report.

HEALTHY START PROGRAM DESCRIPTION

Healthy Start seeks to ensure healthy, thriving children and strong, nurturing, families by offering both universal access to parenting information and referral to community resources, and long-term support to first-

birth families with newborn children that need additional assistance, based on the results of a standardized screening and assessment process. Healthy Start service begins during pregnancy or at the time of birth.

Through the comprehensive assessment process, families are offered one of two levels of service.

- Families with few, if any, risk characteristics are offered short-term service that may include a welcome-home visit, parenting newsletters about child development, and information about community resources and supports.
- Using a home visitation model, longer-term family support services extending through the early childhood years are offered to families whose characteristics place them at higher risk for poor child and family outcomes. These services include developmental screening for children, parent education and support, and linking families to needed community resources such as health care, food or housing.

Healthy Start's legislatively mandated goals are to:

1. Provide a comprehensive risk assessment of all newly born children and their families
2. Identify families that would benefit most from the services
3. Provide support services, including but not limited to community-based home visiting intervention services and primary health care services
4. Provide other supports, including but not limited to referral and coordination of community and public services for children and families, such as counseling, child care, food, housing and transportation

5. Coordinate services for children
6. Provide follow-up services and supports from birth through five years of age
7. Establish a data system to document level of screening and assessment, profile of risk and family demographics, incidence of child abuse and neglect, change in stress-coping and managing skills, and rate of child development
8. Establish a training program in the dynamics of the skills needed to provide these services, such as assessment and home visiting

By enhancing family stability and supporting positive parenting practices, Healthy Start addresses critical Oregon Benchmarks including:

- a. Promotion of school readiness,
- b. Health care utilization with an improvement of health outcomes for children and families,
- c. Immunization rates, and
- d. Reduction in the incidence of child maltreatment among higher-risk families.

In addition to these goals, Healthy Start strives to be a fundamental part of local and statewide systems that support families and children. Building collaborations, leveraging resources, and working to link with existing services are key elements of the Healthy Start program. Local programs are funded through contracts with local Commissions on Children and Families. Key partnerships include local Health Departments, hospitals, health care providers, local Department of Human Services (DHS) offices, Educational Service Districts, community colleges, Head Start and Early Head Start, and teen parent programs.

Funding for Healthy Start is provided by State General Fund dollars and federal Title

XIX reimbursement funds. More than \$1.5 million in Title XIX dollars were reimbursed this year for Healthy Start services leading to utilization of health care services for eligible families. In addition, volunteers and student interns helped support families by working with Healthy Start programs.

HEALTHY FAMILIES AMERICA (HFA)³

Healthy Families America (HFA) is based on a set of critical program elements, defined by more than 20 years of research. The critical elements of HFA represent the field's most current knowledge about how to implement successful home visitation programs. For example, to be successful in reducing child abuse and neglect, services must be intensive (meeting with families on a regular basis), comprehensive (addressing a range of issues related to parenting and other stressful issues), long-term (over a 3 to 5 year period), flexible (in responding to families' needs), and culturally appropriate (understanding and working within a family's cultural norms).

HFA Credentialing

There are several reasons for formally aligning with the HFA model and pursuing credentialing. First, credentialing is a process that implements quality assurance procedures and helps programs reflect on and improve their program operations and implementation. An external, objective analysis provides detailed feedback on strengths and challenges, as well as areas for improvement and a planning process for improvements to be made. Second, affiliation with a network of other similar programs across the nation provides opportunities to learn from peers and to share evaluation and research results for additional learning about what is best practice for serving

families with young children. Third, credentialing signals to the public that Healthy Start meets a set of strict standards agreed to be research-based and our best current knowledge about how to help ensure positive outcomes for infants and young children, and that a trained outside party has reviewed the programs.

HFA Critical Elements

Research has demonstrated that home visitation programs can be successful in addressing a host of poor childhood outcomes, such as failure to thrive, lack of school readiness, and child abuse. The HFA vision is to offer all new parents support when their babies are born and to offer Intensive Home Visiting Services to those parents facing the greatest challenges. HFA emphasizes the importance of collaboration — integrating with and building onto existing service delivery systems. The HFA approach to home visitation utilizes a set of research-based field-tested critical elements to ensure quality programming:

1. Early initiation of services: services are initiated prenatally or at birth.
2. Standardized assessment to systematically identify families who are most in need of services.
3. Services are voluntary; positive outreach is used to build family trust.
4. Service intensity: initial services are offered weekly, and well-defined criteria allow for increases and decreases in intensity over the long term.
5. Culturally competent services, including trained and experienced staff, and materials reflecting the diversity of the served population.
6. Services focused on supporting the parent and supporting parent-child interaction and child development.

7. Linkages to a medical provider and other services as needed (such as financial, food, housing, school support, child care, job training, substance abuse treatment, domestic violence shelter, and other family supports).
8. Limited staff caseloads to assure adequate time to meet each family's needs.
9. High quality staff members who are selected for their good fit with this type of service delivery program, both in terms of their personal characteristics and skills.
10. Extensive, comprehensive training for staff to ensure they can handle the variety of experiences they may encounter in working with at-risk families.
11. Effective, ongoing staff supervision and support.
12. Effective and ethical program management practices.

Healthy Families America provides detailed definitions, descriptions, and rating indicators for each of the critical elements and its subcategories. The Healthy Start evaluation contributes data and evidence for the local programs and the state overall in how well it is implementing these critical elements.



OVERVIEW OF THE HEALTHY START EVALUATION

The effectiveness of Healthy Start is assessed using a performance measurement strategy. Thirty-three Healthy Start sites participated in a statewide performance measurement system during FY 2003-04. However, because 2 sites experienced a period during which services were not offered, data from these sites are not included in this report and thus, data from 31 sites are presented. Detailed information about the evaluation methodology can be found at www.npcresearch.com. The evaluation collects two primary types of information: service implementation data (Table A) and outcomes data (Table B).

Research linking these outcome indicators to the broader wellness goals and Benchmarks are reviewed in the Oregon Commission on Children and Families publication, *Building Results I*. (Pratt, Henderson, & Ozretich, 1997).



Table A. Implementation Indicators for Healthy Start

Program Activity	Output Indicators Measured
Universal, voluntary services for first-birth families	<ul style="list-style-type: none"> Number of first-birth families offered Healthy Start services (HFA Critical Element 1) Family satisfaction with Intensive Services (HFA Critical Element GA-3 & GA-5)
Systematic and timely identification and referral to the program	<ul style="list-style-type: none"> Number of families screened/served by Healthy Start (HFA Critical Element 1) Length of time between baby's birth and screening (HFA Critical Element 1)
Systematic identification of higher-risk families eligible for Intensive Services	<ul style="list-style-type: none"> Percentage of higher-risk families assessed for home visiting service eligibility (HFA Critical Element 2)
Information and referral provided to lower-risk families	<ul style="list-style-type: none"> Number and characteristics of families participating in Universal Basic Services (HFA Critical Element 1)
Long-term family support services and home visitation provided to higher-risk families	<ul style="list-style-type: none"> Number and characteristics of Intensive Service families (HFA Critical Element 1)
Successful retention of families in home visiting services	<ul style="list-style-type: none"> Length of service for Intensive Service families (HFA Critical Element 3 & 4)

Table B. Healthy Start Benchmarks, Goals, and Child and Family Outcome Indicators

Healthy Start Benchmarks	Healthy Start Program Goal	Outcome Indicators Measured
Children Free from Maltreatment	Reduce Rates of Child Maltreatment	<ul style="list-style-type: none"> ▪ Substantiated reports of abuse and neglect to the Oregon Department of Human Services
	Reduce Risk Factors for Child Maltreatment	<ul style="list-style-type: none"> ▪ Increase parenting skills ▪ Increase the quality of Parent-Child interactions ▪ Reduce parenting stress ▪ Reduce family substance abuse, domestic violence, and criminality ▪ Enhance family coping strategies
Increase Children's School Readiness	Ensure Healthy Children	<ul style="list-style-type: none"> ▪ Ensure early, comprehensive prenatal care for subsequent pregnancies ▪ Ensure children are linked to a primary care physician ▪ Ensure children are adequately immunized ▪ Ensure families have access to health insurance ▪ Ensure families' basic needs for food, shelter, clothing, etc., are met.
	Assist Parents in Providing Appropriate Supports for Children's Literacy and Learning	<ul style="list-style-type: none"> ▪ Increase the number of parents reading to children regularly ▪ Ensure that children have access to books and literacy-related materials ▪ Increase the number of parents providing developmentally supportive home environments for their children

**Table B. Healthy Start Benchmarks, Goals, and Child and Family Outcome Indicators
(Continued)**

Healthy Start Benchmarks	Healthy Start Program Goal	Outcome Indicators Measured
	Support Children's Healthy Growth and Development	<ul style="list-style-type: none"> ▪ Support children's normative cognitive, language, gross motor, fine motor, and social-emotional development ▪ Ensure children with developmental concerns are referred to appropriate early intervention services

FINDINGS: IMPLEMENTATION AND SERVICE 2003–04

UNIVERSAL, VOLUNTARY SERVICES FOR FIRST BIRTH FAMILIES

Healthy Start recognizes that while every new family can use support when a baby is born, all families do not need the same degree of support. Thus, Healthy Start strives to offer all new parents with a first-born child a range of services from basic information and referral to community resources, to more Intensive Home Visiting Services from birth through age 3 or 5. Participation in Healthy Start, at any level, is voluntary with positive, continuing outreach efforts to ensure that families who would benefit most from the services have an opportunity to be involved (HFA Critical Elements 2 & 3).

Healthy Start offered services to 10,090 families, a 44% increase from FY 2002-03.

The Healthy Start model uses a voluntary, comprehensive risk screening and assessment system that allows services to be accessible to all first-time parents (HFA Critical Element 2). The system involves a two-tiered process of screening and assessment to identify those most in need of services.

During FY 2003-04, first-birth families were screened using the Oregon Children's Plan Screening Tool (OCP Screen) from July 2003 through February 2004, and on the New Baby Questionnaire (NBQ) from March through June 2004. When the screening tool indicates the presence of any one of several risk characteristics, the family is offered further assessment by a trained staff person using



the Kempe Family Stress Inventory. This tool uses a comprehensive protocol to identify areas of stress within the family. Families who show moderate or high stress on the Kempe Assessment are considered eligible for Intensive Services. If current caseloads allow, Intensive Services are then offered to these families. Families who are eligible for Intensive Service but are unable to be served are offered appropriate information and referral to other available community resources.

Screening Procedures

Although all sites used the OCP (7/03-2/04) and the NBQ (3/04-6/04) screening tools, sites administer the screens differently, depending on local protocols. In some, screening is conducted by nurses and/or Healthy Start staff trained in screening procedures. In others, OCP or NBQ forms are completed by parents themselves. The procedures for contacting families, as reported by programs, differs among communities, but may include:

- Talking to families in hospitals
- Telephoning families at home

- Review of clinic and/or hospital records (with expressed written consent from families)
- Referrals from physicians, clinics and hospitals
- Mailing invitational letters to first-birth families

Families who indicate they are not interested in Healthy Start are not screened, nor is any of their family's information entered on the statewide Women and Children's Health Data System (WCHDS).⁴

Reaching all first-birth families in a county is an ambitious undertaking. This year, however, sites increased the percentage of families who were offered service from 44% to 56%, a 27% increase. These increases reflect sites' continued efforts to strengthen their partnerships and conduct successful outreach efforts with first-birth families, despite reductions in staff that occurred in many sites during 2003-04. Further, it should be noted that at the county level, 12 of 25 first-birth sites offered services to over

56% of all eligible families were contacted by Healthy Start and offered screening and Universal Basic Services. This represents a 27% increase in the percentage of eligible families contacted, compared to FY 2002-2003.

75% of first birth families and all but three counties offered services to 50% or more of eligible families.

Using birth statistics provided by the Office of Family Health for calendar year 2003, we estimate that in FY 2003-04, the Healthy Start sites included in this report screened 40% of eligible families.

Of the total number of families contacted, 22% declined to participate, 2% refused to share their screening information with the evaluation, and another 2% enrolled prenatally and exited before the birth of the child (and therefore are not included as part of the evaluation). However, it should be noted that not all programs

40% of all eligible families were successfully screened. The screening rate for counties serving all births was considerably lower (29%) than for those counties serving first births only (41%).

consistently recorded the number of parents who declined service and screening at the time of the first contact; thus, both the actual number of parents offered services, as well as the number of parents declining services, may be underestimates.

Data collected this year suggest that a significant number of people (22%, although this may be an under-estimate) are declining Healthy Start screening and/or service at the point of initial contact. This highlights the fact that the program is doing a good job of ensuring that parents feel that they have the option to choose not to participate, consistent with the legislative mandate that Healthy Start provide services that are *voluntary*. However, it also suggests that there may be other ways that Healthy Start can approach families that are non-threatening and highlight the potential benefits of the program. There was large variability across the counties in terms of the percentage of families who declined to participate; rates ranged from 0% to 85% of families declining Healthy Start at the initial point of contact. One large

county had a 46% refusal rate, and there were four counties in which more than 50% of families declined to participate. While Healthy Start is a voluntary program, and thus, it is expected that some families will not want to participate, counties whose refusal rates are relatively high may need to review their procedures to make sure that families are being approached in a friendly and non-intrusive manner. The Health Insurance Portability and Accountability Act (HIPAA, 2002) has increased the requirements for sites to obtain detailed, written, informed consent for participating in Healthy Start and its evaluation, and challenges remain in how to meet the requirements of HIPAA and make sure that Healthy Start is “family friendly.”

As can be seen in Table 1, Appendix A, the majority of counties offering Healthy Start services limit services to first-time parents. Six counties, however, are contracted to provide Healthy Start to all

On average, parents were screened about 3 weeks after the birth of their baby.

families. Counties that limit their services to parents with no previous children (first births) are generally more successful at contacting and screening families: Counties serving first birth families offered services to 56% of first birth parents, and screened 41% of first birth families. Counties serving all births offered services to 42% of families and screened 29% of these families.

Table C. Healthy Start Services Provided for First-Birth Children by Birth Year⁵

FIRST-BIRTH CHILDREN	2002-03	2003-04
First-births from OFH statistics	12,700	16,593
Families Offered Healthy Start Services ⁶	5,635 (44%)	9,322 (56%)
Families Screened by Healthy Start	5,361 (42%)	6,820 (41%)

Timing of Screenings

During FY 2003-04, a somewhat smaller percentage of families (44%) were screened either prenatally or within the first two weeks following the child’s birth, compared to 2002-03 (67%). Reasons for this are not entirely clear, although it could be that the large number of new sites included in this year’s report has influenced this figure. New sites may be less likely to have had effective systems for early identification of potentially eligible families, especially during their early stages of program implementation. However, the average number of days between the baby’s birth and the time the screen was administered was 22 days, or just over 3 weeks. Thus, while somewhat fewer screens are within the 2-week targeted goal, sites still appear to be doing a good job administering the screen early in the post-natal period. As can be seen in Table 2, Appendix A, counties vary widely in the average time between the child’s birth and the screening (from 5.5 days to 176 days). In January 2004, Healthy Start implemented changes in policy to emphasize the goal of

early screening and enrollment of families, with a focus on screening within two weeks of the baby's birth and enrolling families within 90 days of the baby's birth.

CHARACTERISTICS OF FAMILIES SCREENED 2003-2004

With their consent, families are screened for psychosocial characteristics that are established in the research as contributing to poor child and family outcomes. While many issues are known to place children at risk of health or developmental problems, no single factor is sufficient to predict abuse, neglect, developmental delays, or poor health outcomes (Korf-macher, 1999). Analyses of the items on

47% of the families who received only Universal Basic Services had at least one risk characteristic and were potentially eligible for Intensive Service.

the New Baby Questionnaire (NBQ) screening tool have confirmed that the number of risk factors are associated with increased risk of child maltreatment. Using the current NBQ (see Appendix A for a copy), families are considered to be at higher risk if mothers:

- Are single when their child is born
- Are 17 years or younger at the time of the child's birth
- Are currently single
- Received late prenatal care or few prenatal visits
- Have less than a high-school education or equivalent

- Are unemployed and have no spouse/partner, or spouse/partner is also unemployed
- Report problems paying for basic living expenses
- Report depressive symptoms in the past year
- Report family relationship problems
- Report current problems with substance use

Screening Results

Sixty-one percent of all families screened during FY 2003-04 were identified as higher risk. This is a significant (28%) increase compared to FY 2002-03 (47% higher risk), but is a rate more comparable to FY 2001-02 (68% higher risk). Changes in the screening tool, screening scoring, and screening procedures, as well as differences in the populations targeted by counties new to the status report this year, may have led to the variability in the percentage of higher-risk families identified across the past three years.

The proportions of first-birth families with each risk characteristic are shown below (see also Table 3 in Appendix A).

Approximately 49% of the first-time mothers screened at Healthy Start sites during FY 2003-04 were single. This percentage is higher than the national average. Over the past 60 years, U.S. Census data have shown a steady increase in the number of women who are unmarried at the birth of their first child, with 30% of first-time births between 1999 and 2001 being to unmarried women (US Census, 2002).

Table D. Risk Characteristics of Screened Families with a First Birth

Risk Characteristic	1998– 1999	1999– 2000	2000– 2001	2001– 2002	2002– 2003	2003– 2004
Teen mother, 17 or younger	11%	10%	10%	11%	9%	9%
Mother is single	43%	43%	44%	48%	47%	49%
Late prenatal care ⁷	15%	19%	18%	16%	12%	16%
Insufficient prenatal care	na	na	na	na	na	3%
Less than High School education	na	na	na	na	na	27%
Unemployed, and spouse/partner unemployed (if applicable)	na	na	na	na	na	16%
Inadequate income	40%	37%	42%	40%	20%	36%
Depressive symptoms	na	na	na	na	na	30%
Family relationship problems ⁸	na	na	na	na	na	7%
Substance use concerns	14%	11%	14%	18%	9%	5%
Total first-birth families screened at higher risk	55%	56%	56%	68%	47%	61%

Because of concerns that the screening tool used during 2002-03 did not adequately assess parents' financial difficulties, the wording was changed during 2003-04 for the New Baby Questionnaire. Specifically, parents now report whether they have "trouble paying for basic living expenses," none of the time, some of the time, or all of the time. Either of the latter two responses is considered a risk indicator. These wording changes appear to have been effective, as the percentage of families reporting problems related to financial difficulties increased to its pre-2002-03 levels.

Hispanic/ Latino families were much more likely to screen at higher risk, com-

pared to White/ Caucasian families. Eighty-nine percent of Hispanic/ Latino families had screening results indicating higher risk, compared to only 65% of White/ Caucasian families, a statistically significant difference.

Demographic Information for Families Screened

Information from the screening forms indicate that of all families screened, 71% of mothers were Caucasian, 19% were Hispanic/ Latino, 4% were Asian, 2% African American, and 3% other or multi-racial. Census statistics from 2000 indicate that, statewide, there were 12.5% Hispanic/ Latino families, 3% Asian

families, and 1.6% African American families living in Oregon. As can be seen in Table 4, Appendix A, however, it is clear that counties differ widely in their percentage of racial/ethnic minority families. Further, among Healthy Start families 84% spoke English as their primary language, 14% spoke Spanish as their primary language, and 2% spoke another language, such as Russian, Cambodian, Laotian, or Vietnamese. Statewide, about 12% of families (in 2000 census data) spoke a language other than English in the home (see also Table 4, Appendix A).

ASSESSING HIGHER-RISK FAMILIES FOR ELIGIBILITY FOR HOME VISITING

As described previously, families whose New Baby Questionnaire indicates that they are at potentially higher risk for negative child outcomes are then invited to participate in a more detailed assessment process using the Kempe Family Stress Inventory (Korfmacher, 2000). The Kempe meets Healthy Families America criteria for assessment tools as a research-based, uniform instrument. Prior data collected as a part of the Healthy Start evaluation clearly shows that Kempe scores are strongly associated

Of those families who screened at higher risk, 34% were assessed with the Kempe Inventory. This percentage is lower than 2002-03.

with the risk of maltreatment (Green, Mackin, Tarte, Cole & Brekhus, 2002). Healthy Start Family Assessment Workers are carefully trained to conduct Kempe assessments in a way that is respectful of the family and which is attuned to cultural issues within families.

Assessment Interviews

After screening, the Kempe Family Stress Inventory is conducted with consenting higher-risk families by trained family assessment workers to determine family needs and stresses⁹. Healthy Start sites assessed 34% of those first-birth families

Only 4% of eligible families declined to participate in Intensive Services following the Kempe assessment.

who were screened at higher risk (see Tables 5a and 5b in Appendix A). The percentage of high-risk families who receive the Kempe assessment has declined steadily in recent years from 53% in 2001-02 and 45% in 2002-03. However, as part of the credentialing process, Healthy Start recognized that local programs differed in their practices of whether they assessed all families with positive screens, particularly when their caseloads were full. Healthy Start has now established a policy of assessing all positive screens, and local programs began implementing this change in practice during this fiscal year.

Forty-two percent of the 5,865 families who received Universal Basic Service during 2003-04 were screened as being at higher risk but no further assessment was conducted (see Table 6 in Appendix A). Of the higher risk families who were assessed using the Kempe, but who received only Universal Basic Services, 40% (105 families) were eligible for Intensive Services. However, the vast majority of higher-risk families in the Universal Basic Service group did not receive the Kempe assessment (2,485 families, or 90%). As shown in Table 5a (Appendix A), however, the percentage of high-risk families who were not assessed

with the Kempe varies substantially across counties.

Mid-way through FY 2003-04, the evaluation began collecting the reasons-given when Kempe assessments were not completed on higher-risk families. Of the 331 families with this information, 43% declined the Kempe, 23% were involved in other home visiting programs, 24% could not be located, and 5% were not assessed because caseloads were full. The remainder was not assessed for other reasons¹⁰ (see Table 5b in Appendix A).

Assessment rates depend heavily on the processes sites have adopted for reaching families, and vary widely by county, from 0 Kemptes completed on higher-risk families to 91% of high-risk families successfully assessed. Only 9 of the 31 counties (29%) successfully assessed 50% or more of identified high-risk families. Sites that are not able to reach families quickly after the initial risk screening is conducted are generally less successful in locating and connecting with higher-risk families than sites that move quickly from screening to assessment. Sites that are able to conduct assessments while mothers are still in the hospital tend to be quite successful in completing Kemptes for higher-risk families. During FY 2003-04, however, many sites struggled to complete Kempe Assessments because of resource and staffing limitations. The OCCF Healthy Start staff provides technical assistance and works to assist sites in increasing their assessment rates. State policy and technical assistance now emphasize that assessment, while an eligibility tool for Intensive Home Visiting, is a service in and of itself and must be conducted regardless of program capacity for additional intensive services.

Out of the 1527 families for whom Kempe assessments were completed, 84% of those assessed were eligible for

Intensive Services, with 48% (732 families) in the “moderate stress” range, 34% (519 families) in the “high stress” range, and 3% (46 families) in the “severe stress” range.

Overall Participation in Universal Basic and Intensive Services

A total of 10,512 families were served by Healthy Start during 2003-04, including those who were screened (new births), those who were ongoing Intensive Service families, those who were served but declined to participate in the evaluation, and those who exited the program prior to the baby’s birth (and thus are not part of the evaluation). This represents a **44% increase in the number of families served by Healthy Start, compared to 2002-03.**

Of families with screening data available, 56% received Universal Basic Services, 40% received longer-term Intensive Service, and 4% were served but declined to participate in the evaluation or exited prenatally (see Figure 1 below, and Table 7 in Appendix A). Almost half (46%) of the 4,199 families receiving Intensive Service entered during FY 2003-04. The remainder entered sometime during previous years. Healthy Start sites offer home visits and other parenting supports over the early childhood years. However, while long-term support is essential to these families, it limits the number of new families who can be served. This pattern is consistent with prior years.

Of the 2,750 higher-risk families who received *only* Universal Basic Service (see Table 6, Appendix A), 90% (2,485) were not interviewed to determine final eligibility for Intensive Services, 6% were interviewed with the Kempe but scored at low stress, and thus were not eligible for Intensive Services, and 4% were interviewed with the Kempe but

were not enrolled in Intensive Services (see Table 6, Appendix A). Of those 105 families who were interviewed but not enrolled, 45% (47 families) declined Intensive Services and 28 (27%) were not offered Intensive Services for other reasons, typically because of involvement with another program (see Table 8, Appendix A). Reasons for not participating in Intensive Services were not recorded for the remaining families. Of all families offered Intensive Services, however, 91% accepted these services (see Table 8) and only 4% declined; 2% were not offered service, for reasons described above. Reviews of home visiting program evaluations suggest that typically 8%-25% of families who are invited to participate in home visiting services choose not to enroll (Gomby, Culross, & Beherman, 1999). Thus, Healthy Start of Oregon has a very positive rate of program acceptance by families.

CHARACTERISTICS OF INTENSIVE SERVICE FAMILIES

The purpose of Healthy Start's two-tiered screening and assessment system is to identify and do outreach to families who may be most in need of more Intensive Home Visiting Services. This system appears to be an effective process for identifying higher-risk families. Families receiving Intensive Services show considerably greater demographic and social risk factors for negative child outcomes, compared to the families who are screened but do not receive Intensive Services. Families receiving Intensive Services reported, on average, 3.1 risk factors on the NBQ, while families not receiving Intensive Services reported only 1.4 risk factors, on average, a statistically significant difference. Mothers in Intensive Service families were also significantly more likely to be teen parents

(19% of all families vs. 5%), to have less than a high school education (47% vs. 20%); to be single parents (71% vs. 39%), and to be unemployed (34% vs. 12%). See Table 9, Appendix A, for a detailed list of all Intensive Service family risk factors, by county.

Families receiving Intensive Services in 2003-04 look similar to those served in prior years, with two exceptions: A somewhat larger percentage of mothers reported working part or full time (21% in 2002-03 vs. 33.7% in 2003-04) and a smaller percentage of families were enrolled with OHP in 2003-04 (65% vs. 81% in 2002-03).

Race/Ethnicity of Healthy Start Intensive Service Families

Healthy Start Intensive Service families are more likely to belong to racial/ ethnic minority groups (see Table 10, Appendix A) than families receiving Universal Basic Services. Fifty-nine percent of mothers in Intensive Service families were White/ Caucasian, compared to 80% of Universal/Basic service families.

Table E. Comparison of Healthy Start Participation Over Last Four Years

(For county-level data, please see Table 7 in Appendix A.)

TYPE OF SERVICE	2000–01	2001–02	2002–03	2003–04
Universal Basic Service	5,083 (57%)	3,044 (46%)	3,155 (43%)	5865 (56%) ^a
Intensive Service	3,220 (36%)	3,027 (46%)	3,574 (49%)	4199 (40%) ^b
No Data Available	NA	NA	NA	448 (4%) ^c
Total Families, Screened and Served	8,912	6,581	7,301	10,512

Table notes:

^a**Universal Basic Service** families for 2003-04 include any families with a child born during FY 2003-04 for whom screening data were received, but who were not enrolled in Intensive Services, plus families who were entered into WCHDS as Healthy Start families without screening data but who did not submit an Intensive Service evaluation form (i.e., were not Intensive Service families). This figure does not include prenatal exits or families who refused participation in the evaluation, because no identification numbers are obtained for these families.

^b**Intensive Service** families for 2003-04 include any families for whom at least one Intensive Service evaluation form was submitted. Four hundred and forty-seven clients were enrolled in Intensive Services this year without providing screening data; some of these may have been twins or other siblings of Healthy Start children. Thus, the number of families served is greater than the number of families screened.

^c**No data available** includes families who agreed to participate in services but declined to participate in the evaluation, or who were served prenatally but exited before the birth of the child, and thus could not be tracked in the evaluation system.

The race/ethnicity of Intensive Service babies is consistent with previous years.

- Almost two-thirds were White/ Caucasian (59%).
- Babies of Hispanic/ Latino descent made up a significant minority (33%).
- 1% was African American
- 3% were Asian American
- 2% were Native American

As can be seen in Table 10, Appendix A, the percentage of minority families in Healthy Start varies considerably by county, and tends to reflect county demographic characteristics. Counties in which Hispanic/ Latino families comprise over half of the Intensive Service families (based on the race/ethnicity of the mother) are:

- Washington (67% of Intensive Service families)
- Hood River (66%)
- Malheur (60%)
- Linn (57%)
- Jefferson (55%)
- Marion (54%)

English is the primary language spoken in approximately 70% of the homes of Intensive Service families, with Spanish spoken in about 28%. A few families speak other languages, including Vietnamese, Cambodian, Laotian, and Russian.

Ages of Children Served in Intensive Services

Healthy Start provides Intensive Services from birth until the child reaches age 3 or age 5 (counties may decide whether to

serve children beyond age 3). HFA guidelines also specify that services must be offered for at least 3 and up to 5 years. As can be seen in Table 11, most children in Intensive Services are under the age of 2. However, a number of counties that have been operational for many years have successfully served a number of families with older children during 2003-04.

- 47% of children in Healthy Start Intensive Services were under age 1
- 31% were 1-2 years old
- 13% were 2-3 years old
- 9% were between ages 3-6 years of age

See Tables 9, 10, and 11 in Appendix A for detailed demographic and risk characteristics of Intensive Service families for each county.

Issues at Intake for Service Parents

Many of the parents enrolled in Intensive Services have experienced childhood maltreatment during their own childhood (see Tables 12a & 12b in Appendix A for county level information). According to reports to Family Support Workers by the parents, among the Intensive Service families served during FY 2003-04:

- 24% of the mothers and 17% of fathers of Healthy Start children were raised by an alcoholic or drug-affected parent themselves
- 24% of mothers and 18% of fathers reported being physically abused or neglected during their childhood; 12% of mothers and 2% of fathers reported sexual abuse during their childhood. Research shows that a history of abuse and/or neglect is one

of the strongest predictors of the likelihood of abusing one's own children (Yoshikawa, 1994).

- 12% of mothers and 8% of fathers reported being in foster or out-of-home care

A substantial number of the parents also have histories of psychopathology and/or antisocial behavior. Of these Intensive Service families:

- 24% of mothers and 26% of fathers reported a history of alcohol or substance abuse
- 35% of mothers and 8% of fathers reported a history of depression or other mental health condition
- 9% of mothers and 19% of fathers reported a history of criminal activity

Further, approximately 5% of the mothers and 3% of the fathers are perceived by the worker to have a developmental disability.

During Intensive Home Visiting, workers address these issues with families through goal setting and case planning. They are trained in how to help families with a wide variety of needs and issues, and receive regular supervision, feedback and suggestions on how to work with families and help them access community resources.

Family Use of Community Resources at Program Intake

During the first month after the child's birth, the home visitor reports the number of services and other resources used by families receiving Intensive Service. Among the Intensive Service families enrolled during FY 2003-04:

- 88% were receiving assistance through WIC (Women, Infant, and Child Food Program)
- 65% were on the Oregon Health Plan/ Medicaid
- 38% had dental insurance, the lowest rate in the past 3 fiscal years of Healthy Start reporting
- 44% were using family planning services
- 40% were using food stamps
- 16% received cash assistance through the welfare system of Temporary Assistance to Needy Families (TANF)

ENGAGEMENT AND RETENTION OF FAMILIES IN INTENSIVE SERVICES

Engagement and retention are critical issues for prevention programs that work with higher-risk families. If families do not take full advantage of the offered services, the potential for beneficial child and family outcomes is decreased. Reviews of the dozens of studies of home visiting programs consistently suggest that programs that are successful in implementing home visits at least twice a month (typically, about half of all scheduled home visits are successfully delivered, even in carefully monitored programs such as Olds' Nurse-Family Partnership model), and that serve families for one year or more are more successful (Gomby et al., 1999).

Engaging a family in Intensive Services, then, includes the family's initial agreement to participate, and ongoing success in engaging a family in home visits. Experience has shown that families may accept Intensive Home Visiting initially, but drop out in the first few weeks of

service. Families who remain in services past this initial 90-day period are considered “engaged.”

96% of Healthy Start’s higher-risk families were successfully engaged in Intensive Services for at least 3 months.

On average, higher-risk families with Intensive Service received 15.2 months of home visitation (see Table 13a, Appendix A), and increase over the previous year’s average of 14.4 months.

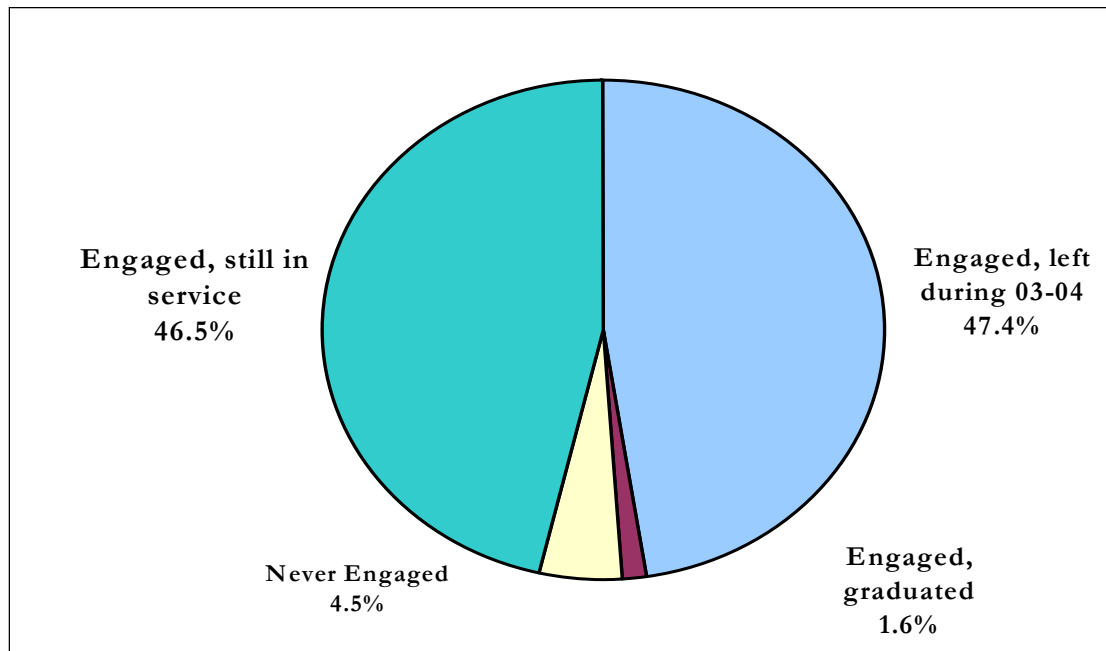
During their first 6 months of service, families on Level 1 received an average of 2.3 visits per month (see Table 13b, Appendix A). This average is the same as the prior year.

During FY 2003-04, 96% of the higher-risk families who accepted Intensive Service were engaged and received three or more months of service (see Table 14, Appendix A). Almost half (47%) remained in Intensive Service at the end of the year, and 2% achieved their goals and graduated (see Figure 1 below and Table 14 in Appendix A for detail).

Over half (61%) of the families who graduated had received three or more years of service. Only about 4% of Healthy Start’s higher-risk families did not engage after initially accepting Intensive Service. **This rate of engagement is higher than other home visiting programs where from 10% to 25% of families who are invited to participate decline services** (Gomby, Culross, & Behrman, 1999)

Figure 1. FY 2003-04 Engagement and Retention

(Families are defined as “engaged” if they remain in Intensive Services for more than 3 months.)



Program Attrition

About 52% of families left the program during FY 2003-04. These families gave a variety of reasons for leaving (see Table 15, Appendix A):

- 23% moved out of the service area;
- 16% left Intensive Services due to work and/or school commitments;
- 16% left Intensive Services for unknown reasons, after repeatedly missing scheduled visits;
- 14% left Intensive Services because they were no longer interested;
- 2% were not able to be provided services because of caseload limitations;
- 2% had children who were removed from the mothers' care;
- 2% successfully reached goals and graduated, or "aged out" of the program; and
- 25% left for other reasons.

The Healthy Families America credentialing process has led programs to implement "Creative Outreach" strategies to attempt to re-engage families. These efforts were just beginning in FY 2003-04.

Other programs report comparable attrition rates. A recent review of home visiting programs found that between 20% and 67% of families enrolled in the programs left before graduation. The authors point out that relatively high rates of attrition have been observed in home visiting programs for years. Much of the attrition is out of the control of home visiting programs as families move away or return to work.

Supervision Affects Attrition

To investigate the specific factors that influence attrition and program retention, researchers examined data from 1,093 families who were receiving home visits from 71 different home visitors (McGuigan, Katzev, & Pratt, 2003). Results revealed that independent of any family characteristics, the likelihood of families remaining in home visiting services beyond one year increased in proportion to the hours of direct supervision the home visitor received. Families whose home visitors had weekly supervision for an hour or more were more likely to remain in service than families where home visitors had irregular supervision or supervision on an "as-needed" basis. In structured supervisory sessions, Healthy Start home visitors and supervisors typically review family progress, develop case plans and identify strategies and interventions that will lead to the family achieving goals. This careful planning may improve service quality, leading to higher motivation among families to continue. HFA credentialing requires intensive supervision as one of its critical elements of home visiting. Programs are required to provide full-time direct service staff with a minimum of one and a half hours of individual supervision time per week (and two hours is recommended) over not more than two regularly scheduled meetings. HFA also specifies that a full-time supervisor will not supervise more than six direct service staff.

Length of Stay in Program

On average, Intensive Service families received 15.2 months of service in FY 2003-04. This number has increased from last year (See Table 13a in Appendix A). The average length of service varied markedly by county, ranging from 5

months to 22 months. A number of counties are relatively new, and therefore the amount of time that families could possibly be served is lower for these sites. Conversely, counties that were implemented earliest generally have a larger proportion of older children, and thus have the longest service durations. Table 13a presents data for the average months of services for children of different ages. The closer the average length of service is to the corresponding age range, the more likely it is that families are being retained in service for the full period of time for that child's age. These figures show a pattern that suggests that a relatively high proportion of families drop out during the first year of their participation in the program.

The Healthy Start model calls for Intensive Service over the early childhood years with visits gradually decreasing in frequency as living situations and/or parenting strategies improve. Initially, families are placed on Level 1, and weekly visits are planned. HFA standards, which sites began to implement in FY 2003-04, require that all families receive Level 1 services for at least the first 6 months of their participation in the program.

Family Support Workers report the number of visits received by parents during their first 6 months of service on the first Family Update form. Families reported as being on Level 1 at the first Update (about 56% statewide) had received 2.3 home visits per month during FY 2003-04 (see Table 13b in Appendix A). The average number of visits per month during the first 6 months by county ranged from .67 to 3.1.

- 55% of Level 1 families received more than 12 visits (at least 2 visits per month)

- 34% of Level 1 families received 7 to 12 visits (1 to 2 visits per months)
- 11% received 6 or fewer visits during the 6-month period, as home visitors built trust and developed a more regular schedule

On average, higher-risk families with Intensive Service received 15.2 months of home visitation.

These results are consistent with a review of recent evaluations of home visiting programs, showing that across home visiting models, families receive approximately half, on average, of the intended number of visits. Programs are working to improve this rate as part of HFA credentialing. Some of the same issues leading families to leave the program also affect the number of home visits they receive, including time constraints and competing demands of work and school responsibilities.

FINDINGS: OUTCOMES FOR CHILDREN AND FAMILIES, 2003-04

The two stated benchmarks of the success of the Healthy Start program are: (1) reducing rates of child abuse and neglect; and (2) supporting children to be ready to enter school. These benchmarks are consistent with priorities set by Oregon's Governor, Ted Kulongoski, in his "Children's Charter," that calls for safe, healthy children—children who enter school ready to learn—and supporting positive outcomes for older youth. Further, it is important to note that research shows that these outcomes are related: children who are abused or neglected have generally poorer long term outcomes, including higher rates of problems in school, more anti-social behavior, and increased risk of juvenile justice involvement (Kelley, Thornberry, & Smith, 1997; Lewis, Malouh, & Webb, 1989). Thus, programs like Healthy Start that work holistically to provide a range of supports to address multiple risk factors for negative child well-being can have a significant impact on these important benchmarks (Olds, et al., 1998).

Like most benchmarks, there are a number of shorter-term outcomes that form the foundation for these long-term goals to be achieved. In particular, because

Healthy Start targets families with children ages 0-5, the evaluation does not include a direct measure of these children's success in school. Instead, the evaluation measures important stepping-stones that have been shown, through research, to be strongly associated with later school success. In the remainder of the report we present data related to



these two benchmarks, and their associated shorter-term indicators.

BENCHMARK #1: CHILDREN FREE FROM MALTREATMENT

One of the primary goals of Healthy Start is to ensure that children are free from maltreatment, including physical and emotional neglect and abuse. In Oregon, there were 6,510 reported victims of child abuse or neglect in 2003; of these 48.7% of victims were under the age of 6 (US Department of Health and Human Services, 2003). Nationally, the rates of abuse and neglect have remained fairly stable, ranging from 11.8 to 15.3 victims per thousand over a 10-year period from 1990-2000. This translates to almost a million victims of child abuse or neglect per year (USDHHS, 2000). Very young children are the most likely to be abused, with some studies finding that infants under one year of age are more than twice as likely to suffer abuse than teen-aged children (English, 1998).

The current research literature also suggests that high-quality, Intensive Home Visiting Services delivered to those most at risk of poor child and family outcomes can reduce the incidence of child maltreatment (Sweet & Appelbaum, 2004; Olds, Henderson, Kitzman, Eckenrode, Cole, & Tatelbaum, 1999). Programs that have not been well implemented, and that are less successful at identifying and working with serious problems such as parental substance abuse, mental illness, and severe parenting stress have been less successful (Washington State Institute for Public Policy, 2004). Generally, however, few studies have directly measured the incidence of child maltreatment, relying more on shorter-term measures of issues known to be risk factors for maltreatment, such as parenting skills, the quality of parent-child interactions, and parenting stress. These studies have also shown that home visiting programs, when well implemented, can significantly en-

hance parenting competency and parent support and reduce parenting stress, both of which are clearly linked to increased risk of child maltreatment (Sweet & Appelbaum, 2004). Further, it is important to recognize that while child maltreatment represents one extreme (negative) end of the continuum of parenting quality, many parents can benefit from programs such as Healthy Start in order to provide more optimum parenting for their children. The family environment, and the quality of parenting provided, represents perhaps the most important influence on young children's development, and is critically important to putting a child on a good developmental pathway to better long-term life outcomes (Shonkoff & Phillips, 2000).

The Oregon Healthy Start evaluation uses a quasi-experimental design to assess the effectiveness of the program in reducing the rates of reported child abuse and neglect. Additionally, measures of related risk factors of parenting skills, the quality of parent-child interactions, and parenting stress are evaluated.

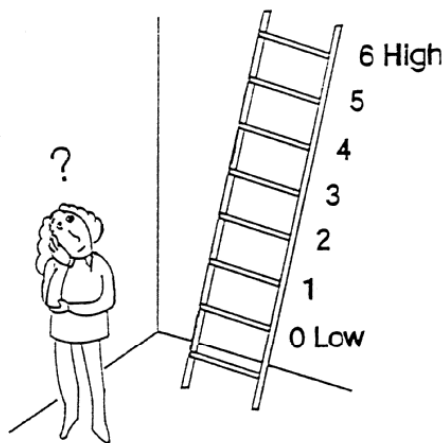
Below are the findings for 2003-2004 for child maltreatment and related risk factors. First, data related to **risk factors for child maltreatment** are presented, specifically adequacy of parenting skills, quality of parent-child interactions, parenting stress, reduction in family risk behaviors such as substance abuse, and family's use of effective coping strategies. Next are data from the Oregon Department of Human Services, Child and Family Services on actual **reported incidents of child abuse and neglect** among Healthy Start and non-Healthy Start families.

Risk Factors for Child Maltreatment

Adequacy of parenting skills

Parents who are warm, nurturing, and supportive, and who have realistic expectations for their children's developmental progress are generally less likely to maltreat their children. Moreover, poor parenting has been associated with increased delinquency and criminality (Yoshikawa, 1994), possibly through its association with neurological impairments resulting from child maltreatment. Programs that enhance parenting and child development have been found to prevent these negative long-term outcomes (Sweet & Applebaum, 2004; Olds, Henderson, Cole, Eckenrolde, Kitzman, Luckey, Pettit, Sidora, Morris, & Powers, 1998).

Figure 2. Parenting Ladder



After 12 months of Intensive Service, parents rate their current knowledge and skills on a “Parenting Ladder” (see Figure 2). At the same time, they reflect back and rate their knowledge and skills when Intensive Service began. This retrospective pretest methodology produces a more robust assessment of program outcomes than traditional pretest/post-test

methodology because parents have shifted their frame of reference about their initial knowledge and skill level as a result of program participation (Pratt, McGuigan, & Katzev, 2001).

90% of Healthy Start parents who indicated a need for help with parenting at intake reported that the program had “helped a lot” with information about parenting by the baby’s 6-month birth date.

Parenting skills improve

After 12 months of Intensive Service, 84% of higher-risk families report improved parenting skills since the time when their child was born (see Tables 16 and 17 in Appendix A). Parents report similar gains for individual skills. After 12 months of Intensive Service:

- 76% report improved knowledge of child development
- 70% report that they feel more confident in knowing what is right for their child
- 66% report that they are better able to help their child learn

Analyses also found that at the baby’s 6-month birthday, White/ Caucasian parents rated themselves more positively in terms of parenting skills, compared to Hispanic/ Latino parents.

Finally, it is worth noting that parents report that Healthy Start is extremely helpful in supporting the parenting role. The most common parenting areas in which Healthy Start families reported needing support were for:

- Help with discipline and positive ways of teaching children (1825 families, 99% of parents providing data);
- Information about parenting and child development; (1621 families, 98%);

Healthy Start was generally rated most positively in terms of support provided to parents for parenting and child rearing. Almost all the parents (88%) reported that Healthy Start has helped them “a lot” to learn positive ways of teaching and disciplining their child. Only one parent reported that Healthy Start was “not helpful” in this area. Ninety percent of families also reported that Healthy Start helped “a lot” in providing information about parenting and child development; 9% reported that Healthy Start helped “a little.” (See Table 31a in Appendix A).

After 12 months of Intensive Service, 84% of the parents in higher-risk families receiving Intensive Service report that they have improved their parenting skills, as measured on the Parenting Ladder.

Quality of parent-child interactions

Supportive, nurturing interactions between a caregiver and an infant are critical to the child’s healthy growth and development. Positive patterns are established during infancy when caregivers learn to recognize and accurately interpret the child’s signals and to respond appropriately to the child’s behavior.

Healthy Start workers write up notes and observations on family needs and progress after each home visit. At 6-month intervals, home visitors review these case

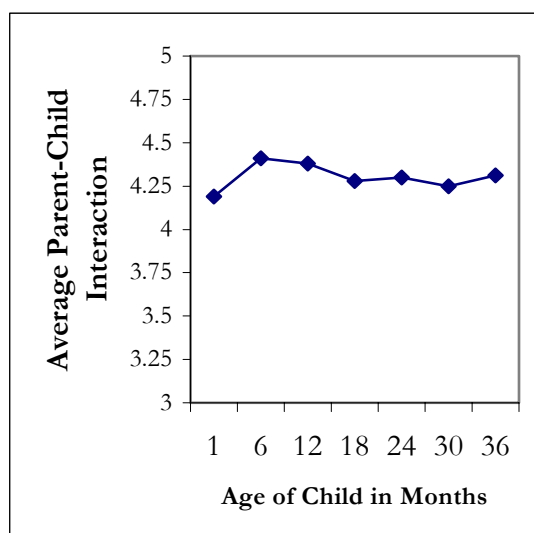
notes and, on a Family Update, report the extent to which parent(s) engage in positive parent-child interactions.

79% of the higher-risk families receiving Intensive Service consistently engage in positive parent-child interactions by 6 months, in contrast to 66% during the first month of life.

During the first month of life, 66% of Healthy Start’s higher-risk families were rated as consistently engaging in positive interactions with their child, such as responding appropriately to the baby’s cues. By 6 months, the proportion had increased to 79% (see Table 17 in Appendix A). At 12 months, parent-child interactions continue to be positive and supportive for approximately the same percentage of families (77%). These results are consistent with prior years.

The average ratings of *consistent* positive parent-child interactions are related to the child’s age (see Figure 3). Families being served by Healthy Start Intensive Services show an improvement in parent-child interactions from the start of service to the first follow-up point, when the child is about 6 months of age. With continued support from Healthy Start, three-fourths (76%) of the higher-risk families maintain positive interactions with their children through the critical and demanding first three years of life.

Figure 3. Ratings of Parent-Child Interactions: Higher Scores = More Positive Interactions.



Parenting stress

Parents who remained in the program at least 6 months reported a significant decrease in parenting stress. Parents complete a short version of the Parenting Stress Index (PSI) (Abidin, 1992). For parents who remained in the program for at least 6 months, there was a significant reduction in reported parenting stress between intake and the child's 6-month birthday ($p < .001$). High levels of parenting stress as have been shown to be associated with higher likelihood of child abuse and neglect (Abidin, 1994). Further, one of the subscales of the PSI assesses the parents' perception of how demanding their child is, another factor that has been associated with increased risk for maltreatment (Windham, et al., 2004). Scores on this subscale also showed a significant decrease during the first 6 months of services ($p < .001$). It should also be noted that Hispanic/ Latino families generally reported higher levels of parenting stress, at both intake and 6 months, compared to White/ Caucasian families.

Data from the Early Head Start national evaluation suggest that even among parents in the Early Head Start program group, scores related to perceptions of how demanding their child is tend to increase over time (Green & Furrer, 2004). The fact that Healthy Start parents do *not* show this increase further supports the conclusion that Healthy Start is effective in helping to reduce parenting stress during this critical early post-natal period.

Reduction in Family Risk Behaviors

Risk factors such as substance abuse, domestic violence, and criminal activity have a negative impact both on the ability of families to provide physical and emotional care to their children and on the risk of the child for maltreatment (Jones Harden & Koblinsky, 1999; Lynch & Cicchetti, 1998). Families in Healthy Start Intensive Services have relatively high rates of all of these issues, as determined by the Kempe Assessment: 25% of

The number of families reported by Healthy Start workers who have a substance abuse issue decreased 17% from intake to the baby's first birthday.

families have at least one parent with a current substance abuse issues, 23% have at least one parent with a history of depression or other mental illness, and 13% have a parent with a history of criminal involvement. These are likely to be under-estimates of these issues, given the sensitivity of these issues and the fact that the Kempe assessments are done very early in the parents' involvement with Healthy Start. For this reason, Healthy Start Family Support Workers continue to monitor parents' needs for

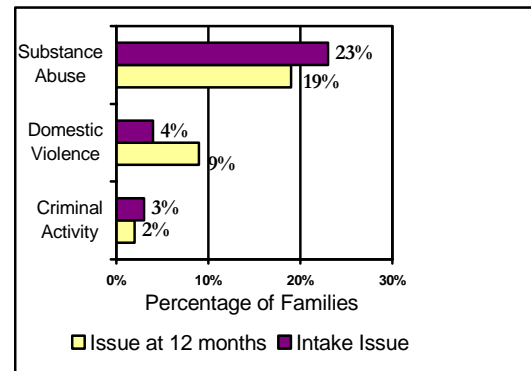
substance abuse, mental health, and domestic violence services.

A sample of 1,212 higher-risk families, with information at intake (Family Intake Form) and 12 months (Family Update Form), was examined for issues relating to substance abuse, family violence, and criminal activity. As shown in Figure 4, there were small reductions in the number of families with substance abuse and criminality over the 12-month period. Interestingly, Family Support Workers noted an increased number of families dealing with the issue of domestic violence at the 12-month time point. This increase may reflect changes in the families or an increased willingness for families to share this type of sensitive information with the worker after participating in the program.

Specifically, for the subset of families with data available for each of these indicators, 17% of the families were reported by workers as having an issue in one or more of these areas at intake, most often substance abuse. By 12 months, 15% of these families had one or more of these issues, a percentage decrease of 12% (see Table 19a and 19b in Appendix A).

As part of case and service planning, Family Support Workers and families use information from the screening, assessment, and intake to link families to needed services. Workers report on the areas of need and services accessed on the Family Intake and Update Forms.

Figure 4. Families with Risk Issues



It seems likely that Healthy Start workers are making this type of referral for families; however, whether this means that all of these families are successfully engaging in substance abuse treatment services is not information collected by this evaluation.

Comparing Worker and Parent Reports of Need

In addition to the worker reports, parents also reported whether they need services related to substance abuse, family violence, or criminality. Parents reports vary, however, depending on the evaluation instrument examined; parent reports also differ somewhat from worker reports. For example, on the first Parent Survey, 11% of parents self-reported a need for substance abuse services. However, on the NBQ, 13% of parents indicated this need. 23% of workers reported that families needed this service at intake. Further, more families reported a need for services for domestic violence (8% vs. 4%) and criminal activity in the household (6% vs. 2%), compared to worker reports at intake. These differences suggest that workers may need additional support and/or training in identifying these issues.

Table F. Changes in Service Need from Intake to 6 Months

Service need reported by families	Need for service at Intake	Need for service at 6 months	Percent Change
Drug/Alcohol Counseling	111	45	59% decrease
Mental Health Counseling	252	126	50% decrease

Parents also report how helpful they have found Healthy Start to be in terms of these issues on the most recent Parent Survey (see also Table 31c in Appendix A). For those families needing substance abuse support, 44% indicated Healthy Start helped “a lot”, while 32% said that services helped “a little” and almost one-fourth (24%) indicated that Healthy Start had not helped “yet” in this area. Similarly, half of the families with a need for help in addressing violence in the household said that Healthy Start “helped a lot” while 30% indicated that Healthy Start “helped a little” and 20% indicated that they had not yet received help in this area. Finally, 48% of families with issues of criminal activity in the household indicated that Healthy Start “helped a lot,” while 22% indicated Healthy Start “helped a little” and 30% indicated Healthy Start had not provided help. These ratings are generally positive, with the majority of parents needing these services reporting that Healthy Start was at least somewhat helpful. However, it should be noted that these parents perceive Healthy Start as less helpful, overall, in these areas, compared to other areas such as parenting and basic resources.

Coping Strategies

Healthy Start is a strength-based service, designed to facilitate family decision-making, capabilities, and competencies. Family life and parenting are frequently stressful. Even among the strongest families, crises and stresses occur. Among higher-risk families, chronic stress and crisis can strain relationships severely. Family well-being depends on the extent to which families are able to cope with stress effectively and maintain a stable home life, even in adverse circumstances.

After 12 months of Intensive Service, workers report that:

- 76% of participating mothers cope effectively with stress
- 88% of participating mothers have good problem-solving skills
- 87% of participating mothers are able to set realistic personal goals for education or self-improvement

After 12 months of Intensive Service, approximately 94% of Healthy Start’s higher-risk families are reported to use at least one effective coping strategy compared to 92% at the time of their child’s birth. FSW ratings of the frequency of use of effective coping strategies by parents were not significantly different at baseline and the 12-month family update.

Rates of Child Maltreatment

Through a collaborative data-sharing agreement between the Oregon Commission on Children and Families; NPC Research; the Oregon Department of Human Services, Office of Family Health; and the Oregon Department of Human Services, Child, Adult, and Family Services; data regarding the incidence of substantiated reports of child abuse and neglect for Healthy Start children were obtained. The results reported below utilize the substantiated report records for 19,662 Healthy Start children who were 0–2 years old during 2003. This analysis included all children receiving both Universal Basic and Intensive Services who were born between January 1, 2002, and January 1, 2004 (birth date on or before December 31, 2003).¹¹ Thus, these data reflect a different (larger) sample than the other sections of this report.

It is important to note that the Healthy Start data reflect the rate of reported abuse and neglect for all Healthy Start children (both Universal Basic and Intensive Service families). This is the most appropriate comparison to general population statistics. Because Healthy Start Intensive Service families are specifically targeted for their higher risk for maltreatment and other negative outcomes, the rates of maltreatment within this subgroup are higher than those for the general (unserved) population. In the general population, there likely is a combination of both higher and lower risk families; for this reason it is important to use the entire Healthy Start population as the appropriate point of reference for comparison. It should also be noted, however, that the Healthy Start group includes primarily first-born children, while the general unserved population includes subsequent births as well. Parents of multiple children may be slightly more likely

to abuse or neglect their children (Heinz, Berendes, Brenner, Overpeck, Trifiletti, & Trumble, 1998), although this finding has not been well studied.

Child maltreatment among families served by Healthy Start is lower than among non-served families in the same counties. As described previously, Healthy Start is not able to reach all families with newborns within each county.

The incidence of child maltreatment in 0–2 year-old children not served by Healthy Start is more than double the rate for Healthy Start children.

Hence, non-served families provide a means of comparison for incidence of child abuse. In contrast to these non-served families with similar-aged children, Healthy Start families have lower victimization rates (12 per 1,000 compared to 20 per 1,000, as shown in Tables G & H and Table 20 in Appendix A).

In 2003-04, 98.8% of Healthy Start's children aged 0–2 years were free from maltreatment. A comparison of child abuse statistics for four years shows that the vast majority of Healthy Start children, ages 0–2 years, do not have substantiated reports of child maltreatment. The percentage of those free from maltreatment has not varied significantly over the past three years, ranging from 99.1% in 1998 to 98.8% in 2003 as shown below (also see Table 20 in Appendix A).

More children are victimized during infancy and their toddler years than any other age period (English, 1998). National statistics show a higher incidence rate for this age group than was found for Healthy Start children. For example, the third National Incidence Study of Child

Abuse and Neglect (NIS-3) reports that in 1993, 26 per 1,000 children aged 0–2 years experienced child maltreatment, compared to 12 per 1,000 for Healthy Start children (U.S. Department of Health & Human Services, 1996). The U.S. Department of Health and Human Services reports a national maltreatment rate of 15.7 per 1000 for children ages 0-3; Oregon’s maltreatment rate for this group was 22.7 per 1000 (U.S.D.H.H.S., 2000).

Most of Healthy Start’s confirmed victims of abuse experienced threat of harm (83%). Victims also experienced neglect (29%), physical abuse (18%), mental injury (4%), and other forms of abuse (1%).¹²

Child maltreatment rates are strongly related to results from risk screening.

The more risks families have, the more vulnerable they and their children are for poor outcomes. For example, the odds of child maltreatment occurring climb with the absolute number of risks faced by the family, as shown below in Figure 5 (also see Table 22 in Appendix A). Risk characteristics include such factors as: being single at the child’s birth; being 17 years or younger; experiencing poverty; having a spouse/ partner who is unemployed; not receiving early comprehensive prenatal care; having unstable housing; experiencing marital or family conflict; a history of substance abuse or mental health problems; and having less than a high school education.

Regardless of which risk factors are present, children are more likely to experience abuse when families have more than one risk characteristic than when families are risk free. The odds of abuse occurring do not increase with just one risk characteristic, but when families have any two risk characteristics, they are almost twice as likely to have a reported abuse incident, and the odds of abuse are five times higher for families with six or more risk factors.

Data analysis found that scores on the Kempe Assessment are even more strongly linked to rates of maltreatment. The rate of child abuse and neglect is 13 per 1,000 children for families who score in the “moderate” stress range. This rate climbs to 40 per 1,000 children for families with high stress, and to 74 per 1,000 for families at the highest stress levels (see Table 23 in Appendix A).

Overall, 97.6% of the higher-risk families receiving Intensive Service with children aged 0–2 years were free from maltreatment during 2003 [a rate of 24 per 1,000], as shown below (see also Table 21 in Appendix A).

The incidence rate for families who received Universal Basic Service is lower (8 per 1,000) than for the other families, showing that Healthy Start’s comprehensive risk assessment system is highly effective at identifying those at greater risk for poor outcomes.

**Table G. Child Maltreatment Among Healthy Start
and Non-Healthy Start Families**

Children Aged 0–2	2001–02		2002–03		2003–04	
	Healthy Start	Non- Healthy Start	Healthy Start	Non- Healthy Start	Healthy Start	Non- Healthy Start
Number*	14,072	50,484	12,919	52,019	19,662	111,397
Free from mal- treatment	98.8%	97.0%	98.8%	97.8%	98.8%	98.0%
Maltreatment rate per 1,000 children	12/1,000	30/1,000	12/1,000	22/1,000	12/1,000	20/1,000

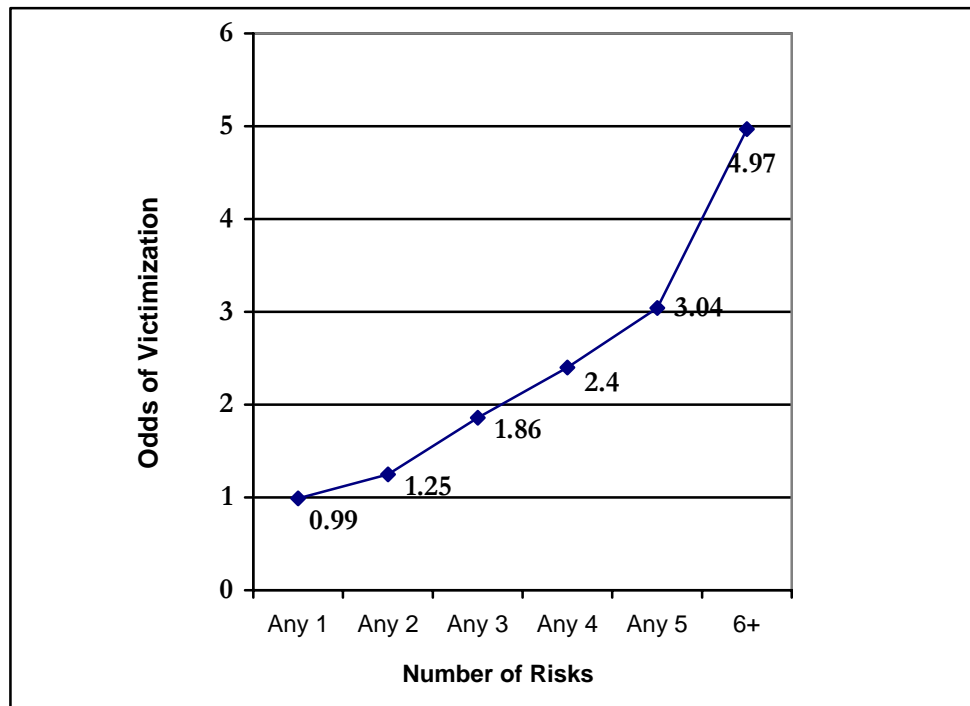
*Healthy Start serves primarily first-birth children. Statistics for non-served families include all children, ages 0–2 years, regardless of birth order.

Table H. Confirmed Cases of Child Maltreatment by Year

	Number	Free from maltreatment	Maltreatment rate per 1,000 children
1998 All Healthy Start children, regardless of risk level, ages 0–2 years	13,004	99.1%	9/1,000
1999 All Healthy Start children, regardless of risk level, ages 0–2 years	14,814	98.7%	13/1,000
2000 All Healthy Start children, regardless of risk level, ages 0–2 years	15,552	98.9%	11/1,000
2001 All Healthy Start children, regardless of risk level, ages 0–2 years	14,072	98.8%	12/1,000
2002 All Healthy Start children, regardless of risk level, ages 0–2 years	12,919	98.8%	12/1,000
2003 All Healthy Start children, regardless of risk level, ages 0–2 years	19,662	98.8%	12/1,000
1993 National sample of children*, regardless of risk level, ages 0–2 years	N/A	97.4%	26/1,000

*National Incidence Study of Child Abuse and Neglect (NIS-3), U.S. Department of Health & Human Services, 1996

Figure 5. Likelihood of Maltreatment by Number of Risks on Healthy Start OCP/ NBQ Screen



See Table 22, Appendix A.

Table I. Child Maltreatment by Service Type, Children 0-2 Years, FY 2003-04

Type of Service	Number	Free from Maltreatment	Maltreatment rate
Universal Basic Service	13,848	99.2%	8/1,000
Intensive Service	5,814	97.6%	24/1,000

See Table 21, Appendix A.

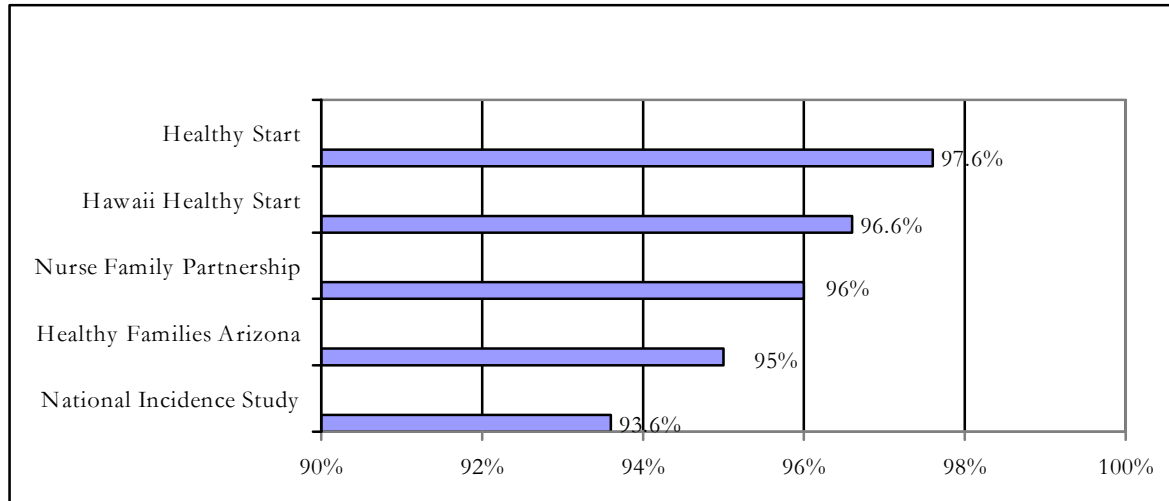
Ideally, it would be possible to compare the rates of child maltreatment for the higher-risk families receiving Intensive Services to a similarly high-risk group of families who did not receive Intensive Services. At this time such a comparison is not possible, given current evaluation structure and program resources. However, in 2003-2004, as a part of the ongoing credentialing efforts, a policy was instituted that will allow the evaluation to identify families who were eligible for Intensive Services but who were unable to be served due to caseload constraints or other issues. This group will provide a strong quasi-experimental comparison group so that the evaluation can more directly examine the influence of Healthy Start on the maltreatment rates for the higher-risk Intensive Service families specifically.

It is possible, however, to compare the maltreatment rates for Oregon's Intensive Service families to the rates found in other studies of high-risk populations (see Figure 6). Generally, these data suggest that Intensive Service families have lower rates of abuse and neglect than these comparable populations. For example, a randomized trial of the Nurse Family Partnership program (NFP), a home visiting intervention developed by Dr. David Olds, found that 96% of higher-risk teenaged mothers who were visited by a nurse for two years were free of maltreatment, compared to only 79% of impoverished, unmarried teens who received no home visiting (Olds, 1997). Among Healthy Start teenaged parents, rates are higher than for non-teen parents (97.4% free from maltreatment vs. 98.9% for non-teens), but are comparable to the findings for the NFP program's treatment group. Further, in a randomized trial of Hawaii's Healthy Start program, 96.6% of the children in higher-risk families

served by paraprofessional home visitors were free from maltreatment during the first year of life in contrast to only 93.2% of a control group who were not visited (Center on Child Abuse Prevention Research, 1996).

Several other states implementing Healthy Families America programs similar to Healthy Start have found evidence for its effectiveness in reducing child abuse and neglect. The State of Arizona Auditor General's report found that 95% of the Healthy Families Arizona higher-risk families who received at least 6 months of home visitation were free of substantiated reports of abuse or neglect. This figure contrasts with 92% for comparison group families during a similar time period (Norton, 1998). A statewide study of Healthy Start in Virginia (Galano & Huntington, 2002) found abuse rates of 2.5% within their higher-risk intensive services group.

Figure 6. Higher-Risk Families Free of Maltreatment

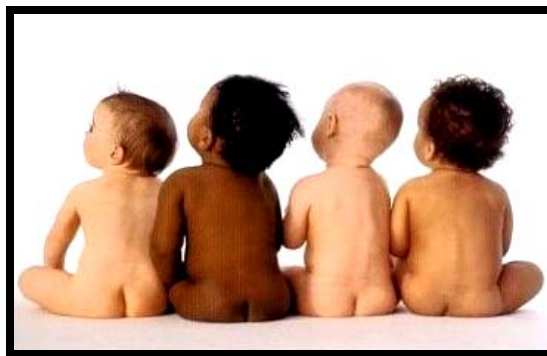


BENCHMARK #2: SCHOOL READINESS

In 1997, a national panel of experts in child development and education established the “National Education Goals Panel Framework” for defining school readiness (NGEP, 1997). This framework outlines key areas that must be addressed in order for children to be able to enter school “ready to learn” cognitively, emotionally, and physically. These include: health, cognitive development and knowledge, social development and social skills, emotional regulation, and supportive learning environments. Further, the importance of providing support in these areas from the very earliest periods of a child’s life has been clearly established (Shonkoff & Phillips, 2000). Finally, as noted previously, success in school is associated with any number of other positive life outcomes, such as reduced delinquency and criminality, lower rates of substance abuse, and better socioeconomic achievement (Yoshikawa, 1994; Pianta & Cox, 1999).

84% of the Healthy Start mothers received early comprehensive prenatal care for second pregnancies in contrast to 75% for their initial pregnancies.

Healthy Start services address each of the areas identified as important to school readiness through their comprehensive approach to child and family well-being, which includes attention to child and family health, monitoring and supporting positive child development, supporting positive parenting, and enhancing children’s early literacy environments. Further, because Healthy Start services begin



before or just after the birth of the baby, services target the critical early periods of the child’s development. The program’s level of success in addressing these areas is detailed below.

Supporting Children’s Health

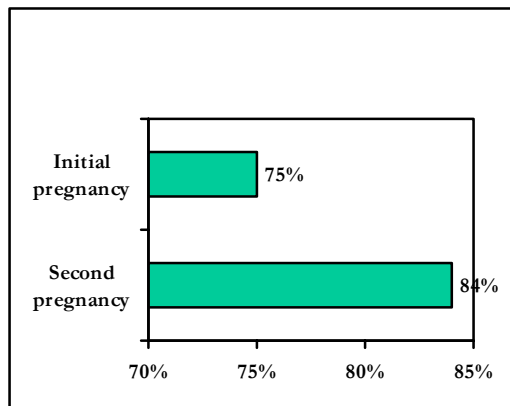
Early Comprehensive Prenatal Care

Healthy development for children begins before birth, with the level and quality of prenatal care received by the mother (Shonkoff & Phillips, 2000). A lack of adequate prenatal care has been found to be associated with neurological impairments that can lead to problems in school and later anti-social behavior (Olds, 1997). Healthy Start programs support mothers to seek early, comprehensive prenatal care for pregnancies that occur after the birth of the first child (and, in counties providing prenatal service, for the first-birth pregnancy as well).

Consistent with the protocols established by the Oregon Office of Family Health, for purposes of evaluation Healthy Start defines early prenatal care as beginning in the first trimester of pregnancy; comprehensive prenatal care is defined as receiving a total of more than five visits to a medical professional during the pregnancy. As can be seen, the data show that the rates of early, comprehensive prenatal care for subsequent pregnancies is substantially higher than for first pregnancies. It is also noteworthy, however, that

three-fourths of Healthy Start's Intensive Service mothers received early comprehensive prenatal care for their first pregnancies (see Table 24 in Appendix A). Many sites do not begin working with families until the baby has been born, and thus are not able to have an impact on initial care. However, sites *do* work towards ensuring that mothers receive quality care for their second pregnancies, as evidenced by this increase.

Figure 7. Early Comprehensive Prenatal Care for Mothers with a Second Pregnancy



See Table 24 in Appendix A.

Among higher-risk mothers served by Healthy Start during FY 2003-04, rates of early comprehensive prenatal care increased by 12% for second (or later) pregnancies, compared to rates for their first pregnancies. During Intensive Service, 685 women became pregnant. Of these women, three-fourths (75%) had received early comprehensive prenatal care for their first pregnancies. As shown

above in Figure 7, 84% received early, comprehensive prenatal care for these second or later pregnancies.

Adequacy of Children's Health Care

Physical health is critical to children's success in school (Shonkoff & Phillips, 2000). The early phases of brain development require good nutrition; conversely, malnutrition among young children can lead to serious neurological problems and increased likelihood of problems later in life (Georgieff & Rao, 1999). Further, the earlier the malnutrition occurs, the greater the effect on brain development (Morgan & Winick, 1985). Children with chronic and recurring health problems are likely to miss more school, repeat grades, and to have other academic problems (Hughes & Ng, 2003). Many health problems can be ameliorated through regular utilization of preventive health services, such as well-child doctors' visits and immunizations (Lewit, Bennett, & Beherman, 2003). Connecting families, especially low-income and minority families, to appropriate health care insurance is a critical step toward ensuring appropriate health care services and reducing health problems (Hughes & Ng, 2003). Healthy Start Family Support Workers work to ensure that families are linked to appropriate community health services, and work with parents to ensure that children receive early preventive health care. Using a Family Update form, FSWs report on the adequacy of health care at 6-month intervals.

Healthy Start is successful in linking children to primary health care and helping to ensure that children receive well-baby checkups. Almost all (96%) of Healthy Start's Intensive Service children have a primary health care provider. Linkage to a primary health care provider is an important first step to ensuring that children receive regular preventive well-child check-ups and receive appropriate routine health care. Most (91%) of these higher-risk Healthy Start children received regular well-child checkups during FY 2003-04. National data compiled by Child Trends (2004) show that only 81% of children under age 6 who live in low-income families received even one well-child check-up in the past year.

At 6-month intervals, home visitors also rate whether or not children are exposed to smoke in the home environment. During the current fiscal year, a slightly greater percentage of Healthy Start children were free from passive smoke expo-

91% of the children in higher-risk families receiving Intensive Services received regular well-child checkups. Nationally only 81% of low-income young children receive regular well-child visits.

sure (65% in 2003-04, compared to 58% in 2002-03) (see Table 25 in Appendix A). This however represents a somewhat higher average overall of children living in a household with someone who smokes, compared to national averages that show that 19% of children under age 6 live in a household with someone who smokes regularly. The rate of smoking among parents who have less than a col-

lege degree is substantially higher, however (21%-32%).

Home visitors reported that 91% of the children from higher-risk families had good or excellent health and 87% had good or excellent nutrition. Further analysis shows that children who had regular well-child checkups were more likely to be rated as having better health

96% of all children in higher-risk families receiving Intensive Services are linked to a primary health care provider.

than children who received less health care ($p < .001$).

Workers generally perceived Hispanic/Latino children as having better health and nutrition, compared to White/Caucasian children, and as being far less likely to be exposed to passive smoke.

Adequacy of Immunizations

In 1994, the President's Childhood Immunization Initiative made immunization of preschool children one of the nation's highest health priorities. Priorities included: 1) eliminating indigenous cases of six vaccine-preventable diseases by 1996, 2) establishing a vaccination-delivery system that maintains and improves high coverage levels; and 3) increasing age-appropriate vaccination coverage levels to at least 90% among two-year-olds by 2001 (Oregon Public Health Services). In 2004, The U. S. Department of Health and Human Services announced that childhood immunization rates were, in fact, at record high levels. The 2003 National Immunization Survey found that 81% of children nationally were fully immunized at age three years. In Oregon, this survey found that 72% of

children were fully immunized at age 2. Child Trends (2004) reports that national immunization rates for poor children were about 76%.

Healthy Start workers reported that 93% of Healthy Start babies were up-to-date on their immunizations, and an additional 6% have received some vaccines but are not fully up-to-date. Very few parents (1%) have chosen *not* to immunize their child because of cultural or religious beliefs. The methods for collecting this information vary, and generally include discussions with the parents and review of an immunization card or health record.

Family Support Workers gained almost half of the information about immunizations (47%) by parent self-report, 35% was gathered by review of an immunization card, and another 5% was obtained by looking at the child's health record. Family Support Workers used other information sources approximately 13% of the time. Somewhat contrary to expectations, analyses suggest that workers who report using the family's health record or immunization card as a source of immunization data were somewhat less likely ($p=.06$) to report that the family's immunizations were not up to date (3.6%, 20 families); parent self report found that 6% (39 families) of parents having immunizations that were not up-to-date. However, these sample sizes are quite small.

Additionally, Healthy Start workers were significantly ($p < .001$) more likely to report that Hispanic/ Latino children had up-to-date immunizations, compared to White/ Caucasian children. This is notable, as nationally Hispanic children are *less likely* to receive regular health care, including well-child visits and immunizations, compared to other racial/ ethnic groups (Child Trends, 2004).

The United States National Immunization Survey, an ongoing survey that provides estimates of vaccination coverage among children aged 19-35 months, showed that 72% of Oregon's two-year-olds were fully

92% of Healthy Start's 2-year-olds are fully immunized, compared to 72% statewide.

immunized (2003). In comparison, 92% of the two-year-olds from higher-risk families who have received Healthy Start's Intensive Service over a two-year period are fully immunized (see Figure 8).

Utilization of Appropriate Health Care

Health care is a basic necessity for all families. Those individuals without access to health care are more likely to have poor health than those who receive regular, preventive care. Health has an impact on a variety of life course outcomes. For example, adults with poor health are less likely to find and keep stable employment.

Using a Family Update, home visitors report on the adequacy of health care at 6-month intervals. Health care statistics reflect the most recent information on file about each family.

Healthy Start works with families to ensure access to the Oregon Health Plan (OHP) for all those who are eligible. Because of State budget restrictions, access to OHP was limited during this fiscal year, and may continue to be restricted in the near future. Approximately 77% of the higher-risk families receiving Intensive Service were enrolled in OHP during FY 2003-04, based on the most recent Family Update (see Figure 9).

Figure 8. Percentage of Children with Immunizations at Two Years

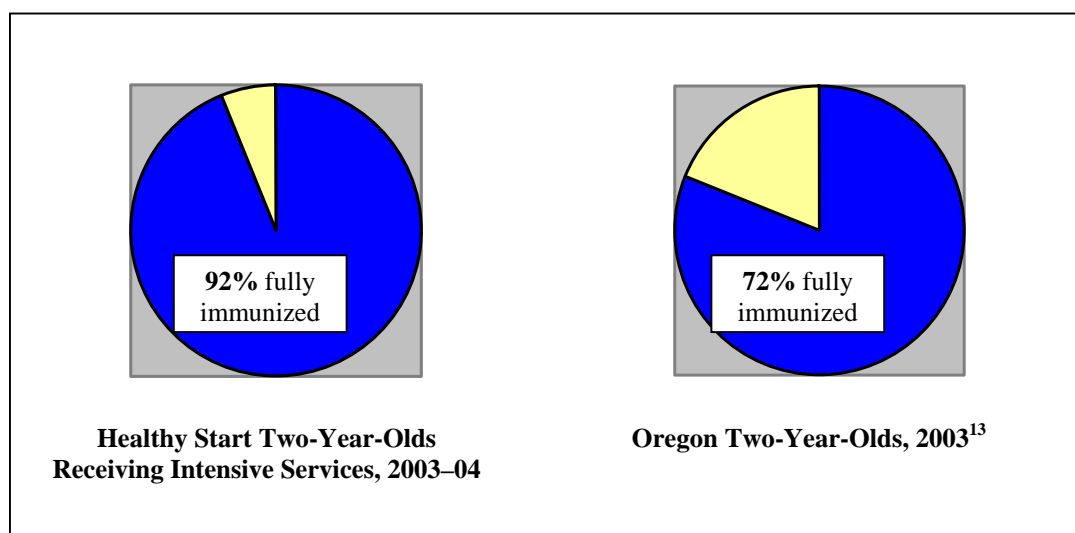
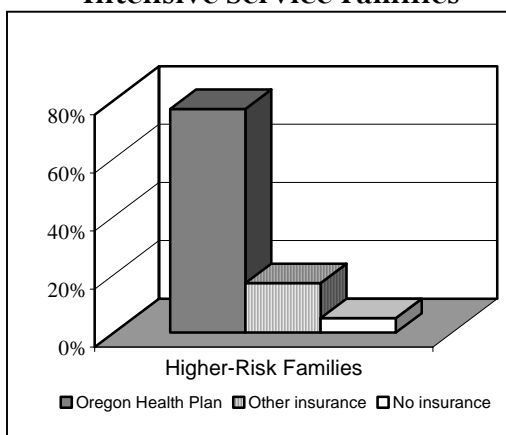


Figure 9. Health Insurance Status of Intensive Service Families



Only 6% of families had no health insurance. 105 families reported needing OHP at intake and 23 families reported needing OHP at 6 months (a 78% reduction in this need within 6 months). However, a family's first report of need may occur at any time, not just at intake. It is important to note that OHP requires renewed eligibility every 6 months; so

maintaining coverage is an ongoing issue for many families.

Approximately 68% of the higher-risk families have a primary health care provider. Hispanic/ Latino families were less likely to have a primary health care provider compared to White/ Caucasian parents: Only 28% of Hispanic/ Latino parents were reported to have a primary health care provider, compared to 65% of White/ Caucasian parents.

75% of the higher-risk families receiving Intensive Service never use emergency services for routine health care.

Emergency room services are very costly, but families without a primary care provider often use the emergency room for routine health care needs. Healthy Start has been successful in linking families to primary health care providers, and 75% of higher-risk Healthy Start families have never used emergency room services for routine health care. Another 22% have only used

these services once or twice during the past year (see Table 26b in Appendix A).

Adequacy of Basic Resources

Adequate family resources are essential to family well-being, stability and self-sufficiency. Adequate resources act as protective processes that increase the likelihood of positive child and family outcomes and decrease the risk for child maltreatment. Families whose needs for basic resources are met feel less stress than families who struggle to meet their basic needs.

Healthy Start successfully helps meet families' needs for basic resources. Generally, a significantly smaller percentage of families was seen as needing a variety of supports following 6 months of Healthy Start services. Information reported by both Family Support Work-

After 6 months of Intensive Service, Healthy Start families showed:

- An 87% decrease in the number of families needing WIC
- A 78% decrease in the number of families needing health insurance
- A 42% decrease in families needing educational assistance

ers and parents themselves suggests that Healthy Start is doing a good job helping families access needed basic resources. At intake, Family Support Workers reported that 14% of higher-risk families needed help providing adequate food in their household, compared to 4% after 12 months of Intensive Service, 15%

needed services to ensure adequate clothing or other material goods at intake, compared to 8% at 12 months, and 19% needed child-related supplies (diapers, etc.) at intake, compared to 11% after 12 months of service. Further, out of 78 families who needed WIC services at intake, only 10 (13%) still were reported by workers as needing this service at the 6-month update. Similarly, while 105 were seen as needing Medicaid/ OHP at intake, only 23 (22%) were reported as needing this service at the 6-month follow up.

At the 6-month parent survey, 69% of parents reported having needed help with basic household resources; 63% reported needing help with child-related resources, and 56% reported needing help with education and adult self-sufficiency. Of parents reporting a need for these services, 49% reported that their worker had helped them "a lot" with basic child-related resources; 48% reported Healthy Start helped a lot meeting other basic family needs and 39% reported a lot of help related to educational support.

It should also be noted that some families who have received Intensive Services are reporting unmet needs. At 12 months, 12% said they had "not yet" received needed help with child-related basic resources, 13% had not yet received help with other basic family needs, and 25% had not received needed help with education and training. However, at 12 months, 49% of Healthy Start parents reported that their worker helped them "a lot" with basic child-related resources; only 14% said that they had not yet received help in this area. Of course, Intensive Service families often have multiple risk factors and stressors, so it is not surprising that families are still working through their need areas or

have developed new ones by the end of their first year of service.

Healthy Start parents who were in need of help obtaining basic resources at intake generally reported that Healthy Start had helped them to meet these

Between 39-49% of parents reported that Healthy Start “Helped a lot” to meet their needs for:

- **Basic household resources**
- **Basic child resources**
- **Education, job training, and employment**

needs by the time the child was 6 months of age. Table J (below) shows the parents’ report of how helpful each of these aspects of Healthy Start services were, for those families who needed that service. As can be seen, a large number of families needed very basic support, such as child-related materials and resources, and household resources; Healthy Start was seen as helpful in these areas. Not surprisingly, parents reported that Healthy Start was somewhat less helpful in terms of helping with their general financial situation.

Early Support for Learning

Research has clearly demonstrated that children whose parents provide environments that support early learning show more positive language and cognitive skills, all of which are strongly associated with school readiness (Shonkoff & Phillips, 2000). Parents play a critical role as children’s “first teachers” by providing developmentally stimulating activities and materials from the earliest stages of infancy. Healthy Start workers

support these environments by providing books and other materials, and working with parents to help them feel confident in interacting with their children in ways that can best support their development. Progress in this area is measured through an annual assessment of the quality of the home as a learning environment (the Home Observation Measure of the Environment, Bradley & Caldwell, 1984).

Literally hundreds of studies have shown that HOME scores are positively associated with children’s IQ, cognitive development, and school performance (Bradley, 1995; Shonkoff & Phillips, 2000).

Parents also self-report the frequency with which they engage in reading and other key activities with their children at baseline and every 6 to 12 months thereafter. The HOME assessment is conducted by Family Support Workers around the time of the child’s 12, 24, 36, 48 and 60 month birth dates. The scale is comprised of 6 subscales at 12 and 24 months; 8 at older ages. Subscales

74% of the Healthy Start children experienced above-average home learning environments as measured by the Home Observation for Measurement of the Environment (HOME) at 12 months; this figure rose to 78% at 24 months.

Table J. Parent Report of Program Helpfulness in Meeting Basic Needs

Issue or Need	% Reporting HS Helped "A Lot"	% Reporting HS Helped "A Little"	% Reporting HS "Hasn't Helped Yet"	Total Number of Families
Basic Child Resources	49%	37%	14%	1,029
Basic Household Resources (e.g., food, clothing, etc.)	48%	39%	13%	1,132
Education, Job Training or Employment	39%	36%	25%	906
Financial Difficulties	32%	37%	32%	1,008

measure (1) Parent's responsiveness to the child (verbal and nonverbal communications); (2) Parent's use of restriction and discipline; (3) Parent's day-to-day activities and organization of the child's environment, such as the use of a regular child care provider (if needed) and taking the child with him/her to the grocery store; (4) Provision of developmentally supportive toys and materials; (5) Engagement of the parent in the child's play activities; (6) Parent's provision of a variety of experiences for the child, including literacy activities (Caldwell & Bradley, 1994) (see Table 28b in Appendix A). Raters indicate whether each item is descriptive of the child's home environment, and then calculate scores, which can be compared to the results for a normed sample of families in the general population. Families are rated as being in "low" (less than the 25th percentile), "medium" (from the 25th to 75th percentiles), or "high" ("75th percentile or greater). FSWs use the HOME assess-

ments as an opportunity both to collect information for the evaluation, and to gather information that can inform ongoing services to the parent around parenting and child development.

Healthy Start children have generally supportive home environments. Almost three-fourths (74%) of Healthy Start's higher-risk Intensive Service families were rated as being in the highest quartile, which means they create a better-than-average learning environment for their young children at 12 months, compared to only 25% of the general population on which the HOME has been normed. Similarly, at 24 months, 78% provided above-average learning environments (see Table 29a in Appendix A). Note: however, these percentages are based on different groups of people and are not comparing changes over time for the same families. HOME scores tend to increase slightly over the first two years of life. Finally, it should be noted that White/ Caucasian families

had significantly ($p < .01$) higher average scores on the HOME at 12 months, compared to Hispanic/ Latino families.

Three sub-scales of the HOME are most highly correlated with children's cogni-

Between intake and 6 months, parents significantly increased the frequency of early literacy activities, such as reading books, and playing games with their children.

By 6 months, most families reported doing these things at least several times per week.

tive development: 1) parent responsiveness to the child, 2) parent involvement and encouragement of the child and 3) availability of age-appropriate toys and learning materials (see Table 29b in Appendix A). Analysis of these sub-scales shows that:

- 76% of Healthy Start's higher-risk families are well above average in the degree of positive emotional and verbal responsiveness they show to their children at 12 months of age. After 24 months, 80% of the families are well above average. Parent responsiveness includes items such as "parent responds to child's vocalizations or verbalizations" and "parent spontaneously praises child at least twice."
- 69% of Healthy Start's higher-risk families are well above average in providing appropriate toys and learning materials for their children at 12 months of age. After 24 months, 77% are well above average. Items on the cognitive stimulation subscale include observation of

whether the parent provides toys or materials for the child to play with that are developmentally appropriate, whether there are books present in the home, and whether the parent reads to the child regularly.

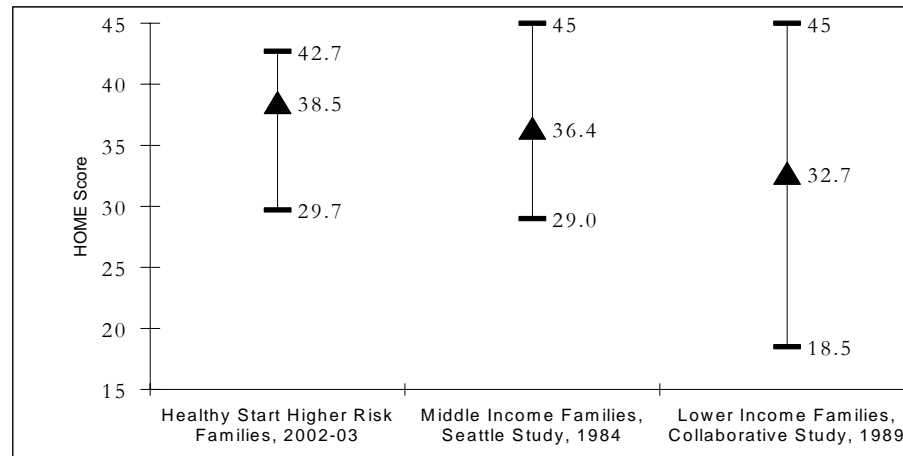
- 74% of the higher-risk families are well above average at encouraging children to develop more mature skills at 12 months of age. At 24 months, 75% of families are well above average at encouraging children to advance developmentally.

Among Healthy Start mothers, however, it is clear that some are better able to provide these important early learning environments. Mothers who have at least a high school education tend to create more supportive home environments than mothers who have less education ($p < .0001$). Also at 12 months, the mother's age is significantly associated with HOME scores. On average, children whose mothers were 18 years or older at the time of the child's birth have higher scores on the HOME compared to children whose mothers are 17 years or younger ($p < .0001$).

Home environments of Healthy Start children compare favorably to others.

The home environments of Healthy Start children from higher-risk homes compare favorably with the home environments of other children, assessed at one year of age, regardless of socioeconomic status (see Figure 10). It should be noted, however, that HOME assessments completed by Healthy Start workers appear to have a somewhat restricted range, with few families falling below what would be considered "very good" home environments.

Figure 10. Comparison of 1-Year Healthy Start HOME Average Scores with 1-Year HOME Scores from Other Populations



Note: The range for each study represents the mean plus or minus 2 standard deviations and describes 95% of the distribution.

On average, Healthy Start higher-risk families provide considerably *more* enriched home environments than those provided by lower SES families not receiving home visitation services (Bradley, et al., 1994).

More recent data from the Early Head Start National Evaluation also suggests that Healthy Start families are doing a good job of providing supporting early learning environments for children at age two (U.S.D.H.H.S., 2001). EHS participants, like Healthy Start participants, are at higher risk for negative child outcomes because of poverty and other risk factors. Scores are based on assessments made when children were 24 months of age. As can be seen in Table K below, Healthy Start program participants show scores for parent responsivity, language and cognitive stimulation, and parent verbalization (e.g., parent talks to the child while doing housework, initiates verbal exchanges with the assessor, etc.) that are comparable or better than both EHS program participants and those who were randomly assigned to a comparison group. The only area in which Healthy

Start families appear to be showing less positive outcomes is in the area of harsh punishment. However, an external observer conducted the EHS assessments, and items on this subscale are based almost exclusively on the parent's behavior during the assessment. Parents may have been less likely to engage in harsher discipline in the presence of the interviewer, while in Healthy Start, home visitors may have more broad knowledge of the parents' typical disciplinary techniques.

Family Literacy Activities

Study after study has demonstrated the importance of early literacy-related activities to later school success (Shonkoff & Phillips, 2000). Parents who read to their child, provide the child with access to books, and who read themselves have children with larger vocabularies and better language development, with higher achievement scores after school entry (Ginsberg, et al., 1998). Healthy Start families appear to be doing a good job of promoting early childhood literacy activities.

Table K. A Comparison of Healthy Start and Early Head Start Families on the HOME Assessment²

	Parent Respon-siveness	Language and Cognitive Stimu-lation (max score=12)	Quality of Parent Verbal Interac-tions (max score=3)	Absence of Harsh Punish-ment (max score=5)	% of parents who to the child read daily
Healthy Start Fami-lies (children age 2)	6.4	10.9	2.9	4.1	66% (n=3926)
EHS Fami-lies ² (n=913)	6.2	10.3	2.8	4.4	57.9%
EHS Com-parison Group Families ² (n=819)	6.1	10.1	2.7	4.4	52.3%

Note: Higher scores indicate more positive environments.

²Source: Love, et al. (2001)

Families are involved in early literacy activities. Well over three-fourths (81%) of Healthy Start's higher-risk families read books with their one-year-olds at least three times per week. As shown below in Figure 11, by age two, 89% of the families are regularly involved in reading to their children. In comparison, national statistics indicate that only about two thirds (64%) of higher-risk families read to their preschoolers aged 3–5 three or more times a week (Nord, Lennon, Liu, & Chandler, 1999). Fifty-eight percent of low-income families participating in the Early Head Start program reported reading to their child daily; 53% of a randomly assigned comparison group of similar families reported daily reading. Among all Healthy Start parents, 48% reported reading to their children daily. When children were age 2 years, 66% reported reading at least daily. This compares favorably to parents participating in the Early Head Start national evaluation, 58% of whom reported daily

reading (52% in a no-treatment comparison group; U.S.D.H.H.S., 2001). Moreover, among a national sample, only about 50% of parents reported daily reading to their children, with rates considerably lower for African American and Hispanic parents, and parents with less than a college education (40-46%; Child Trends, 2004).

Almost all Healthy Start higher-risk families with one-year-olds (99%) have at least 3 books of their own; and 100% of 2 year olds reportedly had at least 3 books. Moreover, Healthy Start families seem to be increasing the number of books generally available in the household.

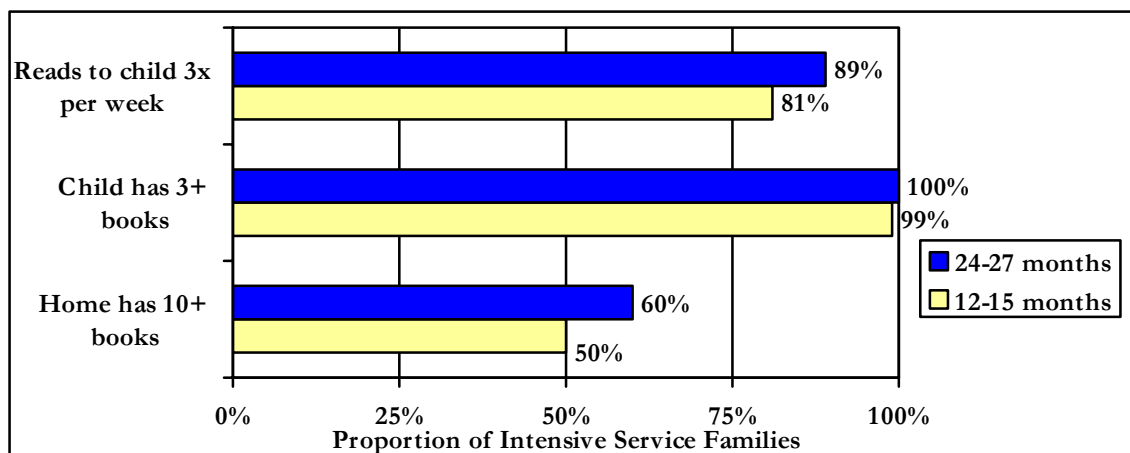
From the time children were 12 months old until their second birthday, the proportion of families with more than 10 books increased 20% (see Table 29b in Appendix A). White/ Caucasian families were significantly ($p < .01$) more likely to have 10 books in the home, compared to Hispanic/ Latino families. This is consistent with national data that shows that Hispanic families are much less likely to have books in the home and to read to their child on a daily basis (Child Trends, 2004). Notably, however, Healthy Start's Hispanic parents were no different from White/ Caucasian parents in the frequency of reading to their child. Much of Healthy Start's success in encouraging early literacy can be attributed to its partnerships with State and local libraries, and to programs' ongoing commitment to obtain books and distribute them to participating families.

Healthy Growth and Development

Healthy growth and development, including cognitive, social-emotional, physical, and motor development, places children on a positive trajectory leading to readiness for school at age 5 (Shonkoff & Phillips, 2000). Healthy Start programs provide early, regular screening and assessment for developmental delay and to ensure that children are developing within normal growth parameters.

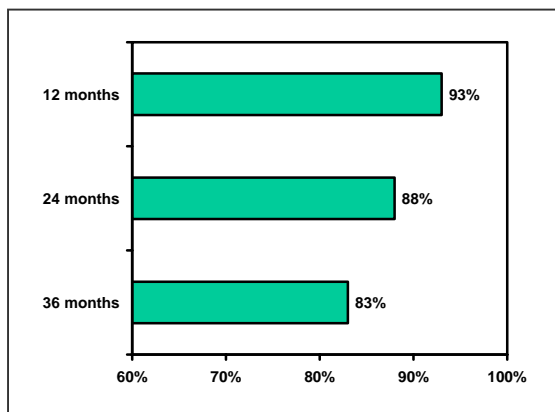
66% of Healthy Start parents report reading to their children once a day or more; nationally, about 50% of children are read to on a daily basis.

Figure 11. Family Literacy Activities



See Table 29a & 29b in Appendix A.

Figure 12. Normal Child Growth & Development



See Table 30 in Appendix A.

Most Healthy Start children are screened using the widely used and normed Ages and Stages Questionnaire, which assesses children's gross motor, fine motor, language/ communication, problem-solving, personal/ social, and social/ emotional development at 4- to 6-month intervals. Research has clearly shown that early identification of potential developmental problems, with appropriate referral and follow-up service, can reduce the likelihood of more serious developmental problems later, reduce the use of special education services, and increase the likelihood of later school success (Guralnick, 1998).

95% of the children in families receiving Intensive Services with *diagnosed* developmental disabilities are receiving Early Intervention services. Early diagnosis and intervention are critical to achieving the best possible developmental outcomes for these children.

Overall, 88% of the 2,187 Intensive Service children who received developmental screenings during FY 2003-04 were

assessed as developing normally. As shown in Figure 12, 93% of the 12-month-olds, 88% of the two-year-olds, and 83% of the three-year-olds were within the normal range on the Ages and Stages Questionnaire (see Table 30 in Appendix A). This pattern of slightly increased rates of developmental delay in the older children is typical in this age range, especially among higher-risk families (Love, 2001).

99% of the children in higher-risk families who have received Intensive Service for 12 months have at least 3 books of their own. By 24 months, 100% of children achieve this goal.

Of the 262 Healthy Start children who were assessed as having a developmental delay, 98 (37%) were subsequently professionally diagnosed with a developmental disability, which translates into approximately 4% of the total number of children screened. Almost all (95%) of the children with developmental disabilities that had been diagnosed professionally received specialized interventions. For those children with developmental delays, early detection and appropriate specialized intervention enhance the probability of achieving the best possible outcomes by the time they enter school.

FAMILY FEEDBACK ON HEALTHY START SERVICES

Healthy Start earns uniformly high marks from parents for both the helpfulness of the home visits and the treatment that families receive from their home visitors. Intensive Service parents are surveyed about their experience when their child is six months and then annually thereafter.

Families generally report that they find Healthy Start services very helpful (see Tables 31a-31c in Appendix A).¹⁴ These data are reported previously in this report (see Sections for Parenting Skills, Adequacy of Basic Resources, and Family Risk Behaviors). Healthy Start was generally rated most positively in terms of support provided to parents for parenting and child rearing. Almost all parents said that Healthy Start “helped a lot” in these areas. Parents were also quite positive about Healthy Start’s helpfulness in obtaining basic resources and in supporting adult self-sufficiency. Parents were somewhat less likely to report that services related to substance abuse, family violence, and criminal activity were helpful, and were somewhat less likely to

have received needed help in these areas. This may be due to the fact that Healthy Start relies on referrals to community resources for these challenging family issues, which are often difficult to access (see Tables 31a-31c in Appendix A).

In addition to rating the helpfulness of specific services, parents who receive Intensive Services indicate the extent to which Healthy Start workers are strengths-based, culturally competent, able to build positive relationships with families, and support the parent-child relationship. Ratings are made on an adapted version of the Strengths-Based Practices Inventory (SBPI, Green, McAllister, & Tarte, 2004). As shown in Table L, below, scores indicate that Healthy Start parents are generally quite positive about the services that they receive. (See Table 32 in Appendix A for county level detail).

Generally, home visitors appear to be rated quite positively, and are a cornerstone of the Healthy Start program. When asked the question, “What do you

Table L. Parent Report of Home Visitors’ Strengths-Based Service Delivery

	Strongly Agree or Agree	Not Sure	Strongly Disagree or Disagree	Number of families
Strengths-Orientation	92%	7%	1%	1,810
Cultural Competence	98%	2%	<1%	1,467
Staff Skills	98%	2%	<1%	1,466
Child-Orientation	98%	1%	1%	1,464

Responses are based on parents’ report using an adapted version of the Strengths-Based Services Inventory (SBPI, Green, McAllister, & Tarte, 2004).

think is the best thing about Healthy Start,” many parents responded with comments about their home visitor. For example, parents responded that **the best thing about Healthy Start is:**

“The friendly workers and their readiness to help you with any problem”

[My worker] is really open and easy to talk to and lets me kind of lead...we talk on a walk, while I’m feeding the baby, whatever”

[My worker] is really friendly and helpful and gives me that extra bit of confidence and knowledge to be a better mother”

“The workers feel more like friends than people who are ‘butting in’ to your life”

“The worker makes it a point to become your friend. Not just any friend, a caring, loving, concerned person”

Other key aspects of Healthy Start, from feedback received from parents, include:

The quality of information about child development provided:

“The great information I get about child development and parenting”

“They help me prepare for what is coming, the stages of development, how to bathe a baby, and how to get good child care”

“They provide wonderful information in child development, communicating with my child. My son gets real excited when the visitor comes”

The general support for family needs:

“They are always willing to help with any situation, and if they can’t help

they give you as much information as they can on the subject”

“How they help doesn’t stop with parenting. She helped me with my education and what I want to do after school”

The fact that services are delivered flexibly and in the home:

“That they come to my house and give me information about children”

“The visitor comes to my home and listens to my needs to try and help me”

“They come to your home, work around your schedule, and provide resources that are hard to find”

The emotional and social support:

“All the support and encouragement we are given has made a huge impact on our ability to work towards any goals we have set out to accomplish”

“I’m a stay at home mom and don’t really have any friends over here. She listens to me and keeps an open mind and helps me with any question I have”

“[My worker] comes and talks with me every week. It really helps having someone to talk to when I don’t have a lot of friends to get out with”

When asked about areas where Healthy Start could improve, the most frequent suggestions covered the following areas:

Parents want Healthy Start to be available to more families.

“If they could help all the people who want help, instead of just the people who qualify”

“Have more home visitors”

“Provide more home visitors, so they don’t have to have so many clients”

“Have an all hours hotline in case parents need help, advice, or solutions after hours or on the weekends”

“Advertise more for people who don’t have hospital births”

“It could be available to pregnant women, to let them know what to expect about child birth and whatever else they want to know”

“More home visits, more often”

Parents would like a greater range of services offered, especially more parent-child playgroups.

“Have more opportunities for playgroups” (mentioned by many of the parents who provided responses)

“More help with transportation”

“Offer health screenings and testing”

“More help with diapers and materials for my baby”

“More varieties of support groups”

Parents want Healthy Start to increase the capacity for culturally appropriate services.

“Translate materials into Vietnamese”

“Have more people who speak both Spanish and English”

“More Spanish-speaking FSWs”

“Have Spanish videos with fathers involved”

Parents want more opportunities to meet each other.

“They should have a get together once a month with all the home visitors and the parents and children so everybody could meet each other”

“Doing more things with other parents”

“Information about how to contact other Healthy Start mothers and babies”

Finally, parents are asked whether there is anything else they’d like to share with the evaluation about the program. These responses were consistently positive, and most focused on thanking the program and the family’s home visitor:

Parents are thankful.

“Thanks to your program I feel I’m a wonderful parent and feel I can handle my child and the one on the way”

“I pray God to keep helping you with the program so that you can continue to help so many who are in need”

“This is a great program. [My worker] helped me to help myself and now I am in college and feel I can positively discipline my children”



SUMMARY & CONCLUSIONS

SUMMARY

The outcome evaluation clearly shows that many children and families benefit from Healthy Start services. Healthy Start appears to be especially effective in linking families to needed basic resources; supporting the development of positive home environments for children; supporting parents to engage in important early-literacy activities such as daily reading; supporting positive parent-child interactions; supporting parents in ensuring their children are fully immunized; and increasing early, comprehensive prenatal care for subsequent pregnancies. The success of these efforts to create nurturing and supportive home environments and healthy children is reflected in demonstrated evidence that Healthy Start families have substantially fewer incidents of founded child maltreatment, compared to families not reached by Healthy Start.

Healthy Start continues to do a good job of engaging and serving families who are at higher risk for negative child outcomes. Families were enrolled, on average, for over a year, and most families were successfully screened in the critical early weeks of the child's development. In addition, this year brought expansion of Healthy Start's quality assurance effort, including training and technical assistance to many new program sites, direct service staff, and program supervisors and managers. The quality assurance effort included a commitment to pursue credentialing with the national Healthy Families America (HFA) initiative. Both the OCCF and local programs have committed to the credentialing process, which requires that all systems



for program administration, staff supervision, and direct interactions with families be aligned with HFA's research-based standards (12 critical elements) for effective home visiting practice. Credentialing will ensure consistency in the quality of services delivered across sites in terms of key elements such as outreach to families, screening and assessment, frequency and intensity of home visits, staff training and supervision, and program administration and evaluation. Reviews of the home visiting research have consistently found that high-quality, Intensive Home Visiting Services delivered to those most in need are the most likely to show positive effects (Gomby, et al., 1999; Washington State Institute for Public Policy, 2004). Engaging in the credentialing effort is a systematic way to improve the quality of implementation of Healthy Start services across the program sites.

Universal basic service: Healthy Start builds on family strengths, implementing a legislative philosophy designed to create wellness for all Oregon children and families. Information from participating counties shows family interest in and need for Healthy Start service is substantial. It is important for Healthy Start to continue to provide *a continuum of service*, ranging from short-term, Universal Basic Service during the period after birth to long-term support service beginning prenatally and continuing through the early childhood years, so that *all* families with newborn children may benefit from this important community support. More programs have begun to offer prenatal services, a trend that appears to be positive in terms of providing early screening and successfully engaging families in services. This year, for the first time, programs were able to document the number of families who declined Healthy Start screening and/or service at the initial point of contact. These data suggest that about 22% of families declined services. While this does indicate that Healthy Start is perceived as voluntary, at least by many families, it also suggests that programs may need to continue to examine their techniques for approaching and engaging families initially, so that families in need do not “slip through the cracks.” Balancing consistent, comprehensive outreach within the context of a voluntary program will continue to be a challenge.

Comprehensive screening and assessment system: Counties vary considerably in their ability to identify and screen first-birth families. While the program as a whole offered services to 55% of eligible families, county rates ranged from 4% to 100%. The OCCF office and Healthy Start staff have focused technical assistance to help local programs establish systems and develop linkages with key players (such as hospital sys-

tems and physicians) to ensure successful screening processes. Additionally, counties vary considerably in the rates with which families screened at higher risk are reached in order to complete the second phase of the assessment process (the Kempe Assessment), ranging from 0% to 91%. This second phase is critical to identify those families most in need of service. Program sites frequently note the lack of staffing resources for assessing all potentially eligible families as a challenge.

High quality long-term Intensive Services for higher-risk families: Higher-risk families have stressful lives that put parents and children at risk for poor outcomes. Multiple risk factors create an “environment of risk” that substantially reduces the chances for children’s healthy development and school success. Those families who have engaged in Intensive Service home visiting show positive outcomes in a variety of key domains, including parent-child interactions, family health, parenting skills, and healthy child development. Data from national studies of higher-risk families show that the results for families participating in Healthy Start are generally better than would be expected, especially in terms of child health, immunizations, early literacy activities, and rates of child maltreatment.

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 findings suggest that the core elements of Healthy Start's home visiting programs are working to support families—both higher and lower risk—to be successful. Challenges remain, however, in terms of continuing to build effective systems for identifying and contacting eligible families, screening and assessing potentially eligible families, and retaining those families in services. County variability in terms of service delivery and implementation is large, and continued technical assistance is needed for those counties whose implementation of components of the Healthy Start model needs improvement. Counties need to develop effective systems that unite community partners in a shared effort to ensure that all families have the opportunity to benefit from Healthy Start's services. Problems creating these systems continue to plague Healthy Start programs, and require considerable effort and energy to develop. Among smaller, more rural counties, establishing an infrastructure to identify and engage families is challenging, and is reflected in low rates of offering services among many “minimum grant” counties that seek to serve all families (not just first-birth families).

Along these lines, the credentialing process has great potential to address many of these challenges. Although in itself credentialing requires a considerable investment of program resources, the payoff in terms of

greater consistency and quality of services is likely to be worth the effort. Criticisms of home visiting as a service delivery mechanism generally acknowledge that these services *can* work; achieving success just requires that quality and intensity of services be at high levels. The credentialing process, which is based on extensive reviews of the home visiting research literature, clearly defines quality indicators that must be achieved *statewide* in order for a credential to be awarded. Efforts to obtain the HFA credential should continue to be supported.

Further, 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, healthcare providers, and other resources are generally acknowledged to create the best outcomes for children. The ability of Healthy Start workers to successfully connect families with these needed resources is an area that warrants further attention programmatically. Establishing systems within communities to provide these supports to families requires Healthy Start to partner with other agencies and providers, and to continue to diversify and leverage funding beyond what is needed to simply deliver home visiting services. Such an approach requires widespread support for an effective system of supports for children and families, within which Healthy Start can play an important, but not isolated, role.

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ENDNOTES

¹ Data are reported here only for those 31 sites that served families for the entire FY 2003-04 fiscal year.

² Sample sizes for other racial/ethnic groups were too small for separate analyses.

³ The description of Healthy Families America is from the Healthy Families America Credentialing Manual. Prevent Child Abuse America, (1999). Chicago.

⁴ The Women's and Children's Health Data System (WCHDS) is Oregon's current system designed to capture information on maternal and child health (MCH) programs. Healthy Start programs enter information into the high-risk infant (HRI) Module, which deals with services to children with health or psycho-social risks and their families. During the first half of FY 2003-04, Healthy Start programs entered screening information into this data system, after which time the evaluation team implemented a different process for capturing these data. Currently Healthy Start programs enter demographic information on consenting families and receive a unique state identification number for new-borns they are serving, which is used as the evaluation identification number.

⁵ Because of the gradual implementation of Healthy Start across the state, different counties are included in different years. To ensure comparability to prior years, this table includes only those counties that limit services to first-birth families.

⁶ Families "offered services" includes families who declined service, declined to participate in the evaluation, and who accepted services prenatally but exited prior to the baby's birth, in addition to those who accepted screening and service.

⁷ In years prior to 2003-04, risk factors for late and insufficient prenatal care were combined.

⁸ This risk characteristic not reported separately prior to FY 2003-04.

⁹ The 10 areas covered by the Kempe include Childhood History; Substance Abuse, Mental Illness, Criminal History; Previous or Current Child Welfare Involvement; Self-esteem, Available Lifelines, Coping Skills; Stressors/Concerns; Potential for Violence; Expectations of Infant Milestones/Behavior; Discipline of Infant/Toddler/Child; Perceptions of New Infant; and Bonding/Attachment Issues.

¹⁰ However, it is important to note that reasons for not completing the Kempe were only available for a small proportion of the families for whom Kempe assessments were not completed.

¹¹ Under this collaborative arrangement, DHS Child Welfare provided information on child abuse and neglect incidents among Healthy Start children for statistical purposes only. It is important to note that names are never released by DHS Child Welfare. To ensure confidentiality, children are identified only by number. 2003 is the most recent full year for which data are available.

¹² Some children experience more than one type of abuse, so these percentages do not add to 100%. Threat of harm includes all activities, conditions, and persons that place a child at substantial risk of physical abuse, neglect, or mental injury, including domestic vio-

lence or sales of illegal drugs in the family's home. Mental injury includes exposure to violence or lack of bonding with a parent.

¹³ Oregon immunization rate for two-year-olds from the National Immunization Survey, 2003

¹⁴ It is important to note, however, that this information is collected in a manner that is not confidential; parent answers are known to the home visitor.