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Healthy Start
2002 – 2003 Status Report

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Healthy Start of Baker County
Healthy Start of Benton County
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Clatsop Healthy Families
Columbia County Healthy Start
Coos County Healthy Start
Healthy Start of Crook County
Healthy Start of Curry County
Deschutes County Ready, Set, Go
Douglas County Healthy Start
Grant County Healthy Start
Harney County Healthy Start
Families First of Hood River County
Jackson County Healthy Start
Jefferson County Healthy Start
Josephine County Healthy Start
Klamath Healthy Start
Lake County Healthy Start
Lane County Healthy Start
Healthy Start of Lincoln County
Healthy Start of Linn County
Malheur County Healthy Start
Marion/Polk Healthy Start
Healthy Start of Morrow County
Healthy Start of Multnomah County
Tillamook Healthy Families
Healthy Start of Umatilla County
Union County Healthy Start
Healthy Start of Wallowa County
Families First of Wasco/Sherman Counties
New Parent Network of Washington County
Healthy Start of Gilliam County
New Parent Network of Yamhill County
Healthy Start of Wheeler County

Table of Contents

Executive Summary and Recommendations I
Findings: Program Implementation, FY 2002–03 I
Findings: Service Participation, FY 2002–03 II
Findings: Outcomes for Children and Families, FY 2002–03 III
Findings: Systems Outcomes, FY 2002–03 V
Recommendations: FY 2002–03 VI
Overview of the Healthy Start Program 1
Evaluation of Healthy Start 3
Findings: Implementation and Service 2002–03 5
Reaching First-Birth Families 5
Characteristics of First-Birth Families 8
Participation 10
Who Are Intensive Service Families? 15
Engagement and Retention 18
Findings: Outcomes for Children and Families, 2002–03 20
Children Free From Maltreatment 21
Early Comprehensive Prenatal Care 27
Healthy Growth and Development 28
Adequacy of Health Care 30
Adequacy of Immunizations 31
Family Effectiveness As Child's First Teacher 33
Family Literacy Activities 36
Adequacy of Parenting Skills 38
Quality of Parent-Child Interactions 39
Utilization of Appropriate Health Care 41
Adequacy of Basic Resources 43
Reduction in Family Risk Behaviors 45
Coping Strategies 47
Family Satisfaction 48
Recommendations: FY 2002–03 51

Appendix A. Methodology 56
Appendix B. Performance Measurement 59
Appendix C. Detailed Healthy Start Program Description 62
Appendix D. Data Tables 69
Appendix E. Fifteen Essential Components of Healthy Start Programs 95
Appendix F. OCP Screen 99
Appendix G. Cross walk of Healthy Start Essential Components and Healthy Families America Standards 104

List of Tables and Figures in Main Report

Table A. Implementation Indicators for Healthy Start ... 3
Table B. Healthy Start Goals, Benchmarks, and Child and Family Outcome Indicators ... 4
Table C. Reach Rate for First-Birth Children by Birth Year ... 6
Table D. Risk Characteristics of Screened Families with First-Born Children ... 8
Table E. Comparison of Healthy Start Participation Over Last Three Years ... 11
Table F. Characteristics of Healthy Start Families ... 15
Table G. Confirmed Cases of Child Maltreatment by Year ... 22
Table H. Absence of Confirmed Cases Child Maltreatment ... 22
Among Healthy Start and Non-Healthy Start Families ... 22
Table I. Child Maltreatment by Service Type ... 25
Table J. Parent Report of Program Helpfulness in Meeting Basic Needs ... 44
Table K. Parent Report of Home Visitor's Strengths-Based Service Delivery ... 49

Figure 1. FY 2002–03 Participation ... 11
Figure 2. FY 2002–03 Intensive Service ... 12
Figure 3. Months of Intensive Service ... 13
Figure 4. FY 2002–03 Engagement and Retention ... 18
Figure 5. Likelihood of Maltreatment by Number of Risks on ... 24
Healthy Start/OCP Screen ... 24
Figure 6. Higher-Risk Families Free of Maltreatment ... 26
Figure 7. Early Comprehensive Prenatal Care for Mothers with a Second Pregnancy ... 27
Figure 8. Normal Child Growth & Development ... 29
Figure 9. Percentage of Children with Immunizations at Two Years ... 32
Figure 10. Comparison of 1-Year Healthy Start HOME Means with 1-Year HOME Means from Other Populations ... 34
Figure 11. Family Literacy Activities ... 37
Figure 12. Parenting Ladder ... 38
Figure 13. Mean Parent-Child Interaction by Age of Child ... 40
Figure 14. Health Insurance Status of Intensive Service Families ... 41
Figure 15. Families with Risk Issues After 12 months of Intensive Service ... 45

Parents Tell Us "The Best Thing About Healthy Start is…."

"They are the building blocks for a first time parent, or one that's starting over to build a strong family with a strong foundation. They provide the tools so that we can do the building."

"It gives us a chance for a 'healthy start' at life and shows parents a better way of life for the children of our future."

"Having [my baby's] development checked and my questions answered. I have learned a lot of parenting and child development information through my home visitor. My home visitor listens to me without judgment. I feel I can talk about many things with her that I don't feel comfortable speaking about with my family members."

"My home visitor. She makes me feel really good about myself. She listens to me, helps me with problems I'm having, and she really likes my baby."

"The information about your growing child. I get so much information and learn so much about my children that I wouldn't learn if I didn't get it from [my worker]."

"Since I've started meeting with my Healthy Start visitor, I have made good choices concerning my child's life. I feel that without the resources Healthy Start provides I may not have been able to do as good a job."

"Thank you for the program. It has helped me see the world through my daughter's eyes. Thank you for being there for me."

Healthy Start
FY 2002–03 Status Report

Executive Summary and Recommendations

Healthy Start recognizes that while every new family can use support when a baby is born, all new 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 appropriate to their needs, ranging from information and educational materials to longer-term more intensive home visiting services sometimes beginning prenatally and continuing throughout the early childhood years.

During 10 years of providing home visitation to families with young children, Healthy Start has experienced many successes and faced some challenges. Using a performance measurement strategy, the FY 2002–03 Status Report describes findings related to implementation, service participation, child and family outcomes, and system outcomes.

Findings: Program Implementation, FY 2002–03

Program implementation and service delivery processes are evidenced by 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.

Fifteen essential components provide a blueprint for Healthy Start's wellness approach. The flexibility of the framework ensures that communities can meet specified quality assurance standards yet also address local needs and utilize local resources.

1. Healthy Start was funded in 35 Oregon counties during FY 2002–03.

- Sixteen new Healthy Start programs received State funding in 2002. These programs began serving families between May 2002 and January 2003. Yamhill County had been providing services since 2000 with support from the Spirit Mountain Community Fund.
- Because not all programs served families during the all of FY 2002–03, data are only reported here for the 19 sites that were serving families for this entire period.

2. Healthy Start's statewide system for screening and identifying first-birth families is making progress. The percentage of first-birth families screened during FY 2002-03 increased somewhat from the previous year The Healthy Start model calls for universal, non-stigmatizing supports to be offered to all families with first-born newborns, as well as the provision of additional services to families who need them.

Overall during FY 2002-03, 44% of the first-born children across the 19 Healthy Start sites included in this report were contacted and 42% were screened for risk characteristics and offered appropriate services. The prior year, 37% of first births in participating counties were screened. The majority of these screenings (67%) took place prenatally or within two weeks of the child's birth.

A higher proportion of Hispanic and African American families screened at higher risk, compared to White/Caucasian families. Of those families screened, a significant proportion appears to be at higher risk of poor child outcomes: Almost half (47%) screened at higher risk. Of those who screened at higher risk, 45% were assessed using the Kempe Family Stress Interview. Eighty-six percent (86%) of these assessments showed family stress levels that were high enough to qualify their family for Intensive Healthy Start services.

Findings: Service Participation, FY 2002–03

1. More families participated in Healthy Start during FY 2002–03 than in the previous year. Participation increased from 6,581 families in FY 2001–02 to 7,301 families in FY 2002–03. 43% (3,155) received short-term Basic Service, 49% (3,574) were involved in long-term Intensive Service, and 8.0% (572) declined any further service beyond screening and community information. Hispanic families were somewhat less likely to decline service, compared to White/Caucasian families. The increase in overall participation occurred in both Basic and Intensive Service categories. Because Healthy Start is voluntary, families are offered services, including the screening, but are free to decline them. Families are not currently entered into the data system unless they have been screened, so data are not available on the number of families that Healthy Start contacted who declined to be screened unless programs independently record that information. Further, some of these families, although they decline the screen, do request and receive Basic Services.

2. Most families who make an initial decision to participate in Intensive Services do successfully engage in services, defined as remaining in service a minimum of 3 months. 90% of higher-risk families who accepted Intensive Services received a minimum of 3 months of service. Healthy Start is engaging higher need families for an average of 14.4 months. This is important, as research shows that home visiting is most effective when frequent (at least monthly) visits are provided over an extended period of time (at least one year). Additionally, it should be noted that several programs had only been offering services for a little more than a year, so inclusion of these programs in this figure probably under-estimates the length of time families actually participate.

3. The comprehensive screening and assessment system effectively identified families at greatest risk for poor outcomes, including child maltreatment. Healthy Start focuses the greatest amount of resources on those families in greatest need of services, as defined by their risk for poor outcomes, including child maltreatment.

- The likelihood of maltreatment occurring is *two and ½ times greater* for families with any two risk characteristics in comparison to families with no risk characteristics.
- Families who screen at higher risk are assessed for their level of family stress, using the Kempe Family Stress Inventory (KFSI). Ten areas of potential stress are explored in depth, including issues relating to family supports and social isolation, and expectations for infant behavior. The Kempe Assessment thus provides early identification of families facing the type of pervasive stress that erodes family stability and puts children at risk. The rate of child abuse and

neglect is 11 per 1,000 children for families with moderate stress. This rate climbs to 32 per 1,000 children for families with high stress, and to 78 per 1,000 for families with the highest stress levels.

- The need for intensive home visiting services may be greater than the ability of Healthy Start to provide them: 31% of families who received only Basic Services were potentially eligible for Intensive services.

4. Healthy Start is successfully reaching higher-risk families. Families receiving Intensive Service are more likely to have the following risk factors, including being single, teens, less educated, and poorer, than Basic Service families.

- 73% of the Intensive Service mothers have never been married compared to 0% of the lower risk Basic Service mothers.
- 59% of the Intensive Service mothers have less than a high school education compared to 44% of the lower risk Basic Service mothers.
- 81% of the Intensive Service mothers are income-eligible for the Oregon Health Plan compared to 30% of the lower risk Basic Service mothers.
- Approximately 31% of the Intensive Service mothers and 32% of the fathers have a history of alcohol or substance abuse.

Findings: Outcomes for Children and Families, FY 2002–03

A series of outcome indicators measure Healthy Start's statewide progress toward Oregon Benchmarks and the wellness goals of healthy, thriving children and strong, nurturing families for Healthy Start's Intensive Service families.

1. Most of Healthy Start's young children are free from maltreatment. A child victimization check by DHS Child Welfare of Healthy Start children aged 0–2 in 2002 showed:

- 98.8% of all Healthy Start children, regardless of family risk characteristics, were free from substantial reports of maltreatment. 1.2% (12 per 1,000 children) had confirmed cases of child maltreatment. In comparison, 97.8% (22 per 1,000) of the non-served children aged 0–2 years in the same counties were free from substantial reports of maltreatment. The child abuse rate for non-served children is ***double the rate*** for Healthy Start children and is similar to recent national statistics that show an incidence rate of 26 per 1,000 children for this age group, regardless of family risk level.
- 97.6% of higher-risk Intensive Service families with children aged 0–2 were free from substantial reports of maltreatment.

2. Children living in higher-risk families show healthy growth and development, and are receiving regular health care and immunizations.

- 82% of the children whose families have received Intensive Service during the past three years show patterns of normal growth and development. 95% of all Healthy Start children with identified developmental delays are receiving early intervention services.
- 96% of Healthy Start's children from families receiving Intensive Service have a primary health care provider and 90% are receiving regular well-child checkups.
- Healthy Start workers report that 91% of Healthy Start's two-year-olds are fully immunized. In contrast, 76% of all Oregon two-year-olds were fully immunized in 2001, as reported by the U. S. National Immunization Survey.[i]

3. Pregnant women in Healthy Start received better prenatal care for subsequent births.

- Pregnant women are receiving early, comprehensive prenatal care for second pregnancies. 81% of Intensive Service mothers received early comprehensive prenatal care for second pregnancies. 71% had received early comprehensive prenatal care for their first pregnancies.

4. Families promote children's school readiness. Family literacy activities are strong predictors of school readiness.[ii] The majority of Intensive Service families are effective in their role as their child's first teacher. After 12 months of Intensive Service:

- 73% 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 visitor, as indicated by the scoring criteria for the Home Observation Measure of the Environment.
- By age 2, 89% of higher-risk Intensive Service families read to their children at least three times per week, and 99% 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.[iii]

5. Healthy Start supports positive parenting. Positive, supportive interactions increase children's well being and are related to reductions in child maltreatment.[iv] By the time their child is 6 months of age:

- Healthy Start workers report that 76% of Healthy Start's higher-risk families *consistently* engage in positive, supportive interactions with their children.
- 83% of higher-risk families report that they believe they have improved their parenting skills.

6. Healthy Start successfully connects higher-risk families with needed health services and resources. After 12 months of service, Healthy Start workers report that:

- 96% of children have a primary health care provider, 95% of families have some type of health insurance coverage, 61% of the parents are linked to a primary health care provider, and 76% *never* use costly emergency room services for routine health care.
- 3% of Intensive Service families report regular use of emergency room services for routine health care.
- 95% of Intensive Service families had health insurance, and 80% were enrolled in the Oregon Health Plan.

7. Families find Healthy Start very helpful.

- Over three-fourths reported that Healthy Start helped "a lot" to provide access to other needed community resources and with serious family problems.
- 89% of the Intensive Service parents reported that Healthy Start helped them meet the needs of their child, better understand their child's behavior and feelings, and find positive ways to teach and discipline their child.
- 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.

8. Some outcomes differ for Hispanic and White families, the two racial/ethnic groups large enough to allow for statistical testing. Specifically:

- Healthy start workers reported that Hispanic children were generally healthier, had better nutrition, and were far less likely to be exposed to passive smoke. However, Hispanic parents were less likely to have a regular health care provider.
- Hispanic children were less likely to have books read to them at least three times per week, and were less likely to have books in the home.
- All other outcomes showed similar patterns for both Hispanic and White/Caucasian families.

Findings: Systems Outcomes, FY 2002–03

Healthy Start is designed to provide collaborative, community-based services. Thus, it is important to document the extent to which Healthy Start is effectively bringing providers together to create a coordinated and integrated early childhood system. The 19 sites report that:

1. Healthy Start's collaborative partnerships have been developed and maintained.

- 111 different programs and agencies collaborate to create the core of the Healthy Start effort under the leadership of 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.

2. A variety of resources are leveraged and mobilized in support of families. Healthy Start sites have successfully leveraged a variety of resources, including space, materials, staff, and money.

- During the 2001–03 biennium, the Oregon legislature appropriated funds to support Healthy Start in all 36 counties. The program was funded through a formula utilizing the number of first-birth families. The legislature allocated funding at 80% of first births, which with a 20% local match requirement would have made it possible to serve all of Oregon's first-birth families. By the end of the fifth Special Session, the funding level had been reduced to 65% of first-birth families.
- During FY 2002–03, 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. Further, communities utilized 259 volunteers to support Healthy Start services.

Recommendations: FY 2002–03

The outcome evaluation shows clearly that many children and families benefit from Healthy Start services. Healthy Start appears to be especially effective in helping to link families to needed basic resources; supporting the development of positive home environments for children; supporting positive parent-child interactions; supporting parents in ensuring their children are fully immunized; increasing early, comprehensive prenatal care for subsequent pregnancies; and, perhaps most importantly, reducing the incidence of substantiated child abuse and neglect.

Despite these many successes, some of Healthy Start's higher-risk families continue to struggle, experiencing conditions that place both adults and children at risk for poor outcomes. Such families may face a myriad of issues that need to be addressed, and while supportive services like Healthy Start can ameliorate some of negative effects of these difficult circumstances, such programs cannot be expected to act as a "magic bullet".[v] Serving these families successfully may take longer, and involve providing a more intensive and comprehensive array of services than can be easily obtained in many communities.

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 to new counties, which required local and state coordination and implementation efforts and will contribute to a broader availability of Healthy Start services in coming years. Based on the findings from this fiscal year, we make the following recommendations.

1. **Continue to work to provide a continuum of non-stigmatizing Healthy Start service to all Oregon families with infants.** 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, 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.

2. **Refine the comprehensive screening and assessment system to ensure that all consenting families are offered service.** Healthy Start's comprehensive screening and assessment system continues to develop. Sites face challenges in implementing strategies for effectively identifying and screening all first-birth families. Moreover, it should be noted that counties vary considerably in their ability to identify and screen first birth families; targeted technical assistance may be needed in particular counties to ensure successful screening processes. Given the significantly fewer families who were identified as being at higher risk this year (47% vs. 68% in FY 2001-02), it may be important to compare the rates of high-risk families for counties using the screening tool as a parent-report instrument compared to those who use staff to complete the tool. Families potentially in need of services could go unidentified if the screening tool is not accurately identifying higher-risk families. 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). This second phase is critical to identify those families most in need of service.

3. **Continue to provide high quality long-term Intensive Services for higher-risk families throughout the early childhood years.** 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. To build on these successes, continued efforts should be made to reduce the attrition rate among higher-risk families. When families do leave before graduation, programs should ensure that they are linked whenever possible to other quality services within the early childhood system of supports to ensure the best outcomes for themselves and their children.

4. **Maintain and expand quality assurance mechanisms to ensure high quality service throughout the system.** Healthy Start's impact on the Oregon Benchmarks will depend ultimately on maintaining the quality and integrity of the Healthy Start services. Healthy Start uses a framework of research-based essential components to guide supports and services Healthy Start embarked on a systematic Quality Assurance initiative during FY 2002–03; the results of these efforts should be evaluated in next year's report. Further, quality assurance efforts

should draw on the county-specific data contained in this report to provide technical assistance to counties where indicated. Integration of quality assurance efforts into all aspects of service will help to ensure that Healthy Start supports families in achieving positive outcomes. Reductions in OCCF staff and training resources will be a challenge that needs to be addressed in upcoming years to ensure continued high quality programming. The current process of credentialing through Healthy Families America in 2004 and 2005 is likely to support a strong system of quality assurance.

5. **Continue to provide quality statewide training.** Resources have been used this year to develop statewide training and networking for Healthy Start staff and their supervisors. A statewide training committee comprised of local staff and program partners has been established and used as a vehicle to plan several training initiatives. For example, OCCF and Linn-Benton Community College have collaborated to provide on-line training in infant-toddler development to staff from Healthy Start and its collaborative partners. Although not a focus of evaluation this year, continuing emphasis on accessible, regular training will help to ensure that Healthy Start staff provide high quality services to families.

6. **Continue tracking Healthy Start activities, outputs, and outcomes through a common performance measurement system.** Performance measurement allows managers to be accountable for results. The Oregon Commission on Children and Families is to be commended for its leadership in establishing a standard system for data management that allows the effective tracking of Healthy Start activities and outcomes for sites across the state. Many improvements have been made to the performance measurement system over the past ten years. Nevertheless, the system continues to need refinement to focus on the data elements that are the most powerful indicators of progress. In particular, Healthy Start programs should develop strategic plans based on each site's current level of performance. Last year, in partnership with OCCF staff, the evaluation team began doing site visits to provide each site with its specific outcomes, and to begin to work with sites to address any identified areas in need of improvement. This process will be repeated in the coming year, and integrated with other statewide technical assistance site visits. Efforts should be continued to utilize evaluation outcome data in continuous quality improvement.

Overview of the Healthy Start Program

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.

The first wave of projects began in 1994, with eight funded sites. Since 1994, Healthy Start has gradually expanded to all 36 Oregon counties, some of which are still progressing through their early implementation period. This report includes data from 19 counties that were fully implemented (that is, serving families) throughout the entire fiscal year 2002-03. For a detailed description of the history of Healthy Start, including the process of statewide expansion, please see Appendix C.

Healthy Start seeks to ensure healthy, thriving children and strong, nurturing, families by offering both universal access to parenting information and screening 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 information and short-term support services to all first-birth families.
2. Systematically identify higher-risk families and offer long-term support services.
3. Enhance family functioning in higher-risk families by:
    a. Building trusting relationships,
    b. Teaching problem solving skills, and
    c. Improving the family's support system.
4. Encourage positive parent-child interaction in higher-risk families.

5. Promote healthy growth and development for children in higher-risk families. 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.

Programs appear to be having considerable success in these types of activities:

- Programs report that in the 19 sites described in this report, 111 collaborative partners are directly involved in providing Healthy Start services. Another 168 partners participate in local Healthy Start collaborative networks. Local Commissions for Children and Families, public health departments, hospitals, Head Start and other early childhood programs, and other health care providers are involved in many counties.
- Over $2.7 million in Title XIX dollars were reimbursed for Healthy Start services leading to utilization of health care services for eligible families.
- Programs report that 259 volunteers and student interns helped to support families by working with Healthy Start programs.

Evaluation of Healthy Start

The effectiveness of Healthy Start is assessed using a performance measurement strategy. Thirty-three Healthy Start sites participated in a single statewide performance measurement system during FY 2002–03. However, because 12 sites did not begin serving families until Spring 2002 or later, data from these sites are not included in this report. A total of 19 sites are included in this report. Detailed information about the evaluation methodology is included in Appendix A. 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*.[vi] The logic model in Appendix B shows how the outcomes relate to program activities and longer-term goals.

Table A. Implementation Indicators for Healthy Start

Goal	Program Activity	Output Indicators Measured
CARING COMMUNITIES AND SYSTEMS	Systematic identification of first-birth families Information and short-term support services provided to lower-risk families Long-term family support services and home visitation provided to higher-risk families	▪ Number of first-birth families reached by Healthy Start ▪ Number of families screened/served by Healthy Start ▪ Type of service received by families ▪ Length of service for Intensive Service families ▪ Number of services for Intensive Service families ▪ Family satisfaction for Intensive Service families

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

Wellness Goal	Oregon Benchmarks Measured	Healthy Start Program Outcome	Outcome Indicators Measured
HEALTHY THRIVING CHILDREN	Pregnant mothers receive early prenatal care	Quality Prenatal Care	▪ Early, comprehensive prenatal care
	Children are adequately immunized	Healthy Growth and Development	▪ Normal growth and development ▪ Early intervention for all children falling outside normal developmental ranges ▪ Adequacy of health care ▪ Adequacy of immunizations
	Children enter school "ready-to-learn"	Nurturing and Supportive Home Environments	▪ Family effectiveness as child's first teacher ▪ Family literacy activities
STRONG, NURTURING FAMILIES	Children free from abuse or neglect	Self-Sufficiency and Access to Essential Resources	▪ Adequacy of basic resources: food, housing, transportation, health and dental care ▪ Utilization of appropriate health care
		Family Emotional Climate	▪ Reduction in family risk processes ▪ Coping strategies
		Positive Parent-Child Relationships	▪ Parenting skills ▪ Quality of parent-child interactions ▪ Children free from confirmed incidents of maltreatment

Findings: Implementation and Service 2002–03

Reaching First-Birth Families

The Healthy Start model calls for a voluntary, comprehensive risk screening and assessment system that allows services to be accessible to all first-time parents. The system includes a two-tier process. First-birth families are screened on the Oregon Children's Plan Screening Tool (OCP Screen). When the screening tool indicates the presence of risk characteristics that may lead to poor outcomes, the family is offered further assessment through the Kempe Family Stress Inventory. This tool identifies areas where families experience stress and lack of support. These areas and the family's strengths are used as a guide in offering services.

Indicator measured	Findings
Number of first-birth families reached through Healthy Start	44% of all first-birth families in the 19 sites included in this report were reached and invited to participate in screening, with 42% actually being screened. This represents a 19% increase in the percentage of first birth families contacted, compared to last year. 45% of first-birth families who had a screening that indicated high risk were successfully reached for Kempe assessment interviews.

See Tables 1 and 2 in Appendix D.

Reaching all first-birth families in a county is an ambitious undertaking. Using data provided by the Office of Family Health for calendar year 2002, we estimate that in FY 2002–03, the 19 Healthy Start sites included in this report screened 42% of eligible families. Additional families were contacted and agreed to be screened and then could not subsequently be located, agreed to screening but did not consent to share information, or declined screening services. These families account for another 2% of first birth families. Overall, this contact rate represents a 19% increase in the percentage of first birth families screened, compared to last year. These increases reflect sites' continued efforts to strengthen their partnerships and conduct successful outreach efforts with first-birth families.

Table C. Reach Rate for First-Birth Children by Birth Year[1]

FIRST-BIRTH CHILDREN	2001–02	2002-03
First-births from OFH statistics	12,653	12,700
Screened (or contacted)[2]	4,620	5,635
Percent of first-birth children reached	**37%**	**44%**

Screening procedures. A large proportion of Healthy Start's first-birth families participate in voluntary screening at birth through collaborative arrangements with area hospitals. However, referrals from health care providers also make up a large proportion of screenings conducted. Consistent with prior years, over two thirds of the screening takes place either prenatally or within the first two weeks after the birth of the child. For example, during FY 2002–03:

- 16% were conducted during the prenatal period,
- 51% were conducted at the time of birth or within 2 weeks, and
- 33% were conducted later than 2 weeks after the child's birth.

Although all sites use the OCP screening tool, 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 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.

Assessment interviews. After screening, assessment interviews are conducted with consenting higher-risk families by trained family assessment workers to determine family needs and stresses.

[1] Because of the gradual implementation of Healthy Start across the state, different counties are included in different years.

[2] In prior years, the percentages here are calculated based on the number of families actually screened. This year, the percentage includes families who were invited to participate in screening but who declined or could not be reached.

- Healthy Start sites assessed 45% of those first-birth families who were screened at higher risk (see Table 2 in Appendix D). This is a slight decrease from last year's assessment rate of 53%.
- Of the higher-risk, first-birth families not assessed, 40% received basic or minimal service, 16% refused further service after screening, 21% could not be located, 20% received Intensive Service, and 4% received "creative outreach" (a variety of strategies to locate and/or engage families). These patterns are similar to prior years.

Assessment rates depend heavily on the processes sites have adopted for reaching families. Sites who interview parents at home after the birth of their child are less successful in locating and connecting with higher-risk families than sites that conduct assessment interviews in the hospital. Thus, the higher rate of very early risk screening helps to ensure that more families receive the needed assessment.

Characteristics of First-Birth Families

47% of first-birth families screened at higher risk

With their consent, families are screened for psychosocial characteristics that put themselves and their children at risk for poor outcomes. Using the OCP screen (see Appendix F for a copy), families are considered to be at higher risk if mothers:

- are single when their child is born,
- report an inadequate income,
- have a history of substance abuse,
- received late or no prenatal care,
- are 17 years or younger at the time of the child's birth, or
- have any two other risk characteristics on the screening tool, such as less than a high school education, having an unemployed partner, or reporting marital/family conflicts.

Screening showed that 47% of Healthy Start's first-birth mothers screened at higher risk. This proportion is a substantial (30%) decrease from a rate of 68% higher risk families during 2001–02. This decrease may reflect the fact that this was the first full year during which sites used the OCP screening tool. Some sites have workers (rather than parents) complete the OCP screen, though in many sites parents answer these questions themselves. Parents may be somewhat less willing to identify some of the risk factors, resulting in the lower percentage of families whose scores indicate higher risk.

Approximately 43% of the first-birth mothers have two or more of the higher-risk characteristics listed above. The proportions of first-birth families with these characteristics are shown below (see also Table 2 in Appendix D).

Table D. Risk Characteristics of Screened Families with First-Born Children

Risk Characteristic	1998–99	1999-00	2000–01	2001–02	2002-03
Mother is single	43%	43%	44%	48%	47%
Inadequate income	40%	37%	42%	40%	20%
Late or no prenatal care	15%	19%	18%	16%	12%
History of substance abuse	14%	11%	14%	18%	9%
Teen mother, 17 or younger	11%	10%	10%	11%	9%
Total first-birth families screened at higher risk	**55%**	**56%**	**56%**	**68%**	**47%**

Approximately 47% of the first-time mothers screened at Healthy Start sites during FY 2002–03 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.

Approximately 20% of the first-time mothers reported that they "did not have enough money" on the OCP screening tool. This rate is 50% lower than last year's rate. This could reflect the fact that this is the first full year using the OCP screening instrument, which asks this question somewhat differently than in prior years. It also relies primarily on parents' perception of the adequacy of their financial situation, rather than a worker's assessment, which could account for this discrepancy.

Hispanic families were much more likely to screen at higher risk, compared to White/Caucasian families. 62% (706) of Hispanic families had screening results indicating higher risk, compared to only 45% (1754) of White/Caucasian families, a statistically significant difference. Data also suggest that more African American families tended to score at higher risk as well, although the sample size for this group was to small to allow for significance testing.

Participation

Healthy Start recognizes that every new family can use support when a baby is born. Yet every new family does 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 short-term during the period directly after birth to longer-term over the early childhood years.

Participation is voluntary with positive, continuing outreach efforts to ensure that families who would benefit most from the services have an opportunity to be involved. Voluntary participation in service:

- allows parents to make decisions in their own best interests,
- is respectful of family decision-making, and
- increases service effectiveness.

Indicator measured	Findings
Number of families and type of service	7,301 families were screened (new births) or continued to receive services (ongoing Intensive Service families) in 2002-03, with 43% receiving short-term Basic Service, 49% receiving longer-term Intensive Service and 8% declining further service after screening. These patterns are comparable to prior years.
Number of higher-risk families receiving Basic Service	31% of the families receiving Basic Service had at least one risk characteristic and were potentially eligible for Intensive Service.
Length of service received by Intensive Service families	On average, higher-risk families with Intensive Service received 14.4 months of home visitation.
Number of home visits for Intensive Service families on Level 1	Families on the most intensive level of service receive an average of 2 visits per month.

See Tables 3, 4, 5 and 6 in Appendix D.

During FY 2002–03, a total of 7,301 families from the 19 established Healthy Start programs participated in Healthy Start screening and/or continuing service. This number represents an 11% increase over the previous year. Of these families, 43% received short-term Basic Service and 49% were involved in the long-term Intensive Home Visiting services. Only 8% declined any further service (see Figure 1 below and Table 3 in Appendix D). Hispanic families were significantly less likely to decline service (3.7%), compared to more likely to White/Caucasian families (9.7%), and were more likely to be enrolled in Intensive Services (65.9% of Hispanic families vs. 40.1% of White/Caucasian families).

Figure 1. FY 2002–03 Participation

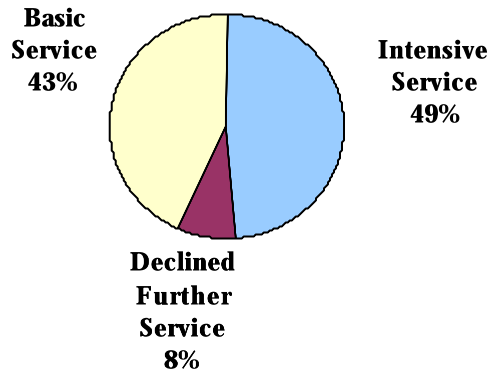


Table E. Comparison of Healthy Start Participation Over Last Three Years

TYPE OF SERVICE	2000–01	2001–02	2002-03
Basic Service	5,083 (57%)	3,044 (46%)	3,155 (43%)
Intensive Service	3,220 (36%)	3,027 (46%)	3,574 (49%)
Declined Further Service	609 (7%)	510 (8%)	572 (8%)
Total Families, Screened and Served	8,912	6,581	7,301

Some higher-risk families can only be offered Basic Service

Healthy Start sites continue to be unable to offer Intensive Service to all the families screened at higher risk *who are potentially eligible* for long-term service. Approximately 31% of the 3,692 families who received Basic Service during 2002–03 were screened as being at higher risk but no further assessment was conducted (see Table 4 in Appendix D).

Of the 1,009 higher-risk families who received Basic Service:

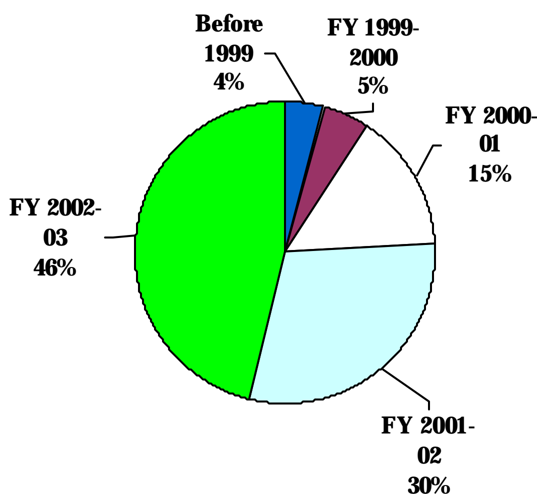
- 47% were not offered Intensive Service, but a home visit was provided, with referrals to needed community resources.
- 22% were not offered Intensive Service and did not receive a home visit. These families often received some other service such as a telephone call or a mailed packet of information about parenting and community resources.
- 31% could not be located for further service.

Almost half of the Intensive Service families entered during 2002–03

Almost half of the 3,714 families (46%) receiving Intensive Service entered during the current fiscal year. The remainder entered the Healthy Start system sometime during previous years (see Figure 2).

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 further limits the number of newly identified families who can be served. This pattern is consistent with prior years.

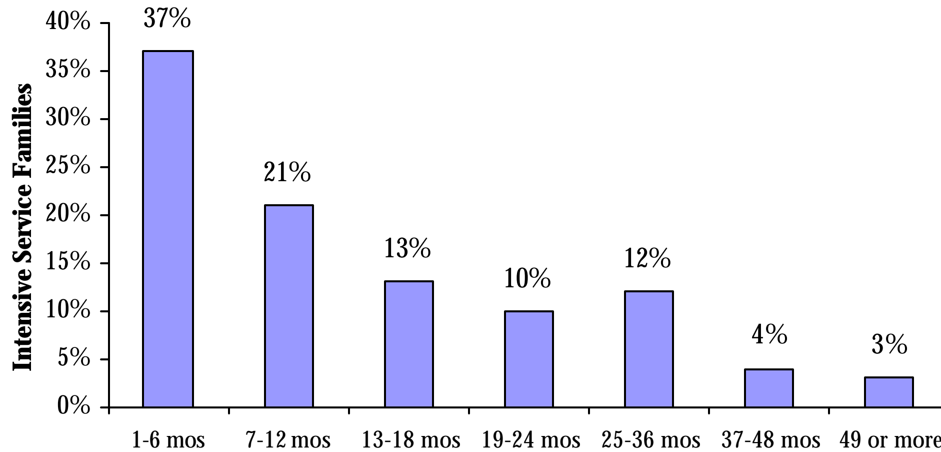
Figure 2. FY 2002–03 Intensive Service



Families average more than 1 year of service

On average, Intensive Service families received 14.4 months of service in FY 2002–03. This number has decreased from last year, which is likely a reflection of a large number of new Intensive Service families being served in some counties (See Table 5 in Appendix D), as well as the "aging out" of a number of children. For example, last year, 7% of families had received 48 or more months of service; this year the rate is 3%.

Figure 3. Months of Intensive Service



Almost two-thirds of the Intensive Services families (63%) have received more than 6 months of service and almost 1 in 5 (19%) received 2 or more years, as shown in Figure 3. The average length of service varied markedly by county, ranging from 7 months to 21 months. This variation is explained in part by the degree of implementation of the Healthy Start program. Counties that were implemented earliest generally had the longest service durations and counties that were implemented later had shorter service durations. It is expected that as newer programs become fully established and families have an opportunity to remain in service longer, their average service durations will increase to the level of the older programs.

Families on the most intensive level of service (Level 1) received an average of 2 visits per month

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.

On average, families at this most intensive level received 2.3 home visits per month during FY 2002–03 (see Table 6 in Appendix D). The average number of visits per month by county ranged from 1.6 to 2.8.

Overall, statistics for participating sites show that, during the most recent 6-month period:

- 55% of Level 1 families received more than 12 visits (at least 2 visits per month)
- 33% of Level 1 families received 7–12 visits (1–2 visits per months)

The remaining families (13%) received 6 or fewer visits during the 6-month period, as home visitors built trust and develop a more regular schedule. These results are consistent with recent evaluations of home visiting programs, showing that across home visiting models, families receive approximately half, on average, of the intended number of visits.[vii]

Healthy Start services in addition to home visitation

Although the primary focus of Healthy Start's Intensive Service is home visitation, most sites also provide other services. In addition to home visitation, parents also participated in the following activities through Healthy Start:

- 25% participated in group activities such as parent support groups and parent education workshops
- 42% participated along with their child in parent-child interaction groups and play groups
- 20% attended family social events, such as holiday parties or field trips
- 11% are in teen parent programs

Who Are Intensive Service Families?

Families receiving Intensive Service tend to be significantly younger, less educated, and poorer than Basic Service families screened at lower risk, as shown below (also see Table 7 in Appendix D). Insurance status varies markedly as well. Over 80% of the Intensive Service children are receiving health care through Medicaid/Oregon Health Plan, compared to 30% of Basic Service children.

Families also vary by levels of maternal employment. At the time of birth, 21% of the Intensive Service mothers have full or part-time employment in contrast to 64% of the lower risk Basic Service mothers.

Ethnic and racial composition mirrors the population in the participating counties. As in previous years, two-thirds of the Intensive Service babies are White/Caucasians (61%). Babies of Hispanic/Latino descent make up a significant minority (34%). Of the remaining families, 2% are African American, 2% are Asian American, and 1% are Native Americans (also see Table 8 in Appendix D).

Table F. Characteristics of Healthy Start Families

Healthy Start Families **FY 2002–03**	**Basic Service** screened at lower risk	**Intensive Service** screened/assessed at higher risk
Average age of mother Percent 17 years or younger	27.1 years 0%	21.4 years 19%
Average years of education Percent with less than high school	13.7 years 44%	10.8 years 59%
Maternal employment, part or full-time	64%	21%
Never married	0%	73%
Oregon Health Plan/Medicaid	30%	81%
Median monthly income	$1,503	$1,023

Counties serving high proportions of Hispanic/Latino families include:

- Hood River (72% of Intensive Service families),
- Washington (63%),
- Marion/Polk (56%),
- Linn (52%), and
- Yamhill (44%).

English is the primary language spoken in approximately 73% of the homes, with Spanish in about 27%. A few families speak other languages.

Risk Characteristics of Intensive Service Parents

Many of the Intensive Service families have experienced difficult situations during their own childhood (see Tables 9a and 9b in Appendix D). Among the Intensive Service families served during FY 2002–03:

- 35% of the mothers and 30% of the fathers were raised by an alcoholic or drug-affected parent
- 34% of both the mothers and the fathers were physically abused or neglected during their childhood; 19% of the mothers and 3% of the fathers experienced sexual abuse during their childhood; and 43% of mothers and 40% of fathers experienced one or more of these forms of maltreatment
- 17% of the mothers and 10% of the fathers experienced 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:

- 31% of the mothers and 32% of the fathers had a history of alcohol or substance abuse
- 43% of the mothers and 13% of the fathers have a history of depression or other mental health condition.
- 12% of the mothers and 20% of the fathers had a history of criminal activity

Approximately 6% of the mothers and 5% of the fathers have been diagnosed with a developmental disability. About 9% had one or more parents with chronic physical health problems needing more than normal levels of health care.

Children's Health Risks at Birth

A small percentage of the babies whose families received Intensive Service during FY 2002–03 experienced significant health risks at birth (see Table 8 in Appendix D):

- 9% were born prematurely (36 weeks or less gestation)
- 6% were low-birth weight infants, less than 5 ½lbs.
- 2% were drug-affected at birth
- 1% were medically fragile babies, with a variety of health complications

Healthy Start home visitors provide support services to these families, typically in cooperation with Babies First! nurses from local public health departments and/or CaCOON (Care Coordination) nurses.

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 2002-03:

- 90% were receiving assistance through WIC (Women, Infant, and Child Food Program)
- 81% were on the Oregon Health Plan/Medicaid
- 47% had dental insurance (a significant reduction from last year)
- 45% were using family planning services
- 40% were using food stamps
- 18% received cash assistance through the welfare system of Temporary Assistance to Needy Families (TANF)

It is interesting to note that the proportion of families with dental insurance dropped this year to 47% from 64% the prior year, and families using family planning services also dropped to 45% from 57% the prior year.

Engagement and Retention

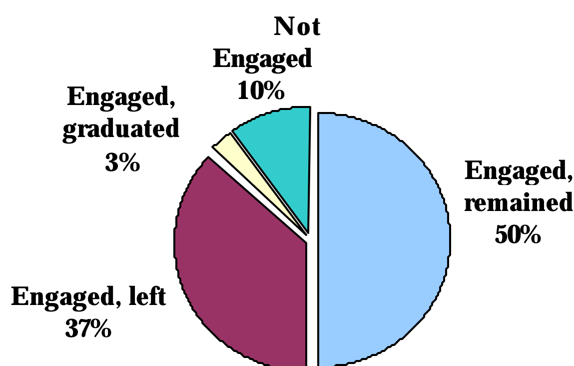
Engagement and retention are critical issues for prevention programs that work with higher-risk families. If families do not take full advantage of the offered services, the potential for beneficial child and family outcomes is decreased.

Successful recruitment is only the first step. Experience has shown that families may accept Intensive Home Visiting initially, but drop out in the first few weeks of service. If families receive at least 3 months of service and provide some outcome information, they are considered to have engaged, even though service may have been spotty.

Most families are engaged and receive 3 or more months of service

During FY 2002–03, 90% of the higher-risk families who accepted Intensive Service were engaged and received three or more months of service. Approximately 50% remained in Intensive Service at the end of the year and 3% achieved goals and graduated (see Figure 4 and Table 6 in Appendix D). About a quarter (24%) of the families who graduated had received three or more years of service.

Figure 4. FY 2002–03 Engagement and Retention



Attrition. During FY 2002–03, approximately 37% of the families who engaged but did not graduate left the program. Engaged families leave for a variety of reasons, including the following:

- 28% moved (12% moved and could not be located, and 16% moved out of the county),
- 14% declined further Intensive Services because they were no longer interested,
- 17% declined further Intensive Services due to work and/or school commitments, and
- 41% left for a variety of other reasons, including not wanting to continue when staff changed.

If families move to another Oregon county with Healthy Start services, referrals are made but experience has shown that only a small proportion reconnect.

Families commonly decline further services when mothers go back to work or to school and find it difficult to schedule the home visits. Others lose interest or may decline further service when they feel personal goals have been achieved. In addition, if there is a staffing change, families may leave rather than work with a new home visitor.

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.[viii] 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.[ix] 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 that 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.

Non–engagement

Approximately 10% of Healthy Start's higher-risk families did not engage after initially accepting Intensive Service (see Table 6 in Appendix D). This rate of non-engagement is lower than other home visiting programs where from 10% to 25% of families that accept service do not fully engage.[x]

Families did not engage for a variety of reasons. The most common reason for non-engagement (28%) was that the parent and home visitor never connected, the parent repeatedly forgot appointments, and/or the parent was not home when the visitor arrived. Approximately 14% of parents declined after initially accepting service, because they were no longer interested. About 11% could not be located for further service, and an additional 12% did not engage because the family moved out of the county. About 10% cited work or school as the reason the parent was too busy to participate. Caseload limitations prevented 4% of families from having the opportunity to continue participation. Various other reasons account for the non-engagement of the remaining families.

Maternal isolation affects engagement. To investigate the specific factors that influence program engagement, researchers examined data from 4,057 mothers with firstborn infants, who enrolled in the Healthy Start from 1995 through 1998.[xi] Results revealed that mothers facing the challenge of first time parenting in isolation, or with limited family and friendship networks, were less likely to actively engage in home visiting services. Thus, when screening indicates that maternal isolation may be an issue, staff may have to re-double outreach efforts to ensure that families have an adequate opportunity to learn what Healthy Start can provide.

Findings: Outcomes for Children and Families, 2002–03

Healthy Start seeks to ensure healthy, thriving children and nurturing, caring families. This program contributes to several key Oregon Benchmarks, including reducing child maltreatment and increasing children's readiness for school. A series of outcome indicators have been selected that have been shown empirically to contribute to these goals and Benchmarks. These outcome indicators assess the effect of Healthy Start on the children and families who receive Intensive Services. Outcome indicators are shown in Table B, page 4.

Some program outcome indicators, such as child maltreatment and immunization rates, directly parallel Benchmark indicators. When direct assessment of a benchmark is not viable among program participants, outcome indicators are assessed that have been empirically shown to contribute to the benchmark. For example, it is not feasible to directly assess school readiness among the infants and young children served by Healthy Start. Thus, outcomes that contribute to school readiness are assessed, such as the child's developmental status and family literacy practices. Research linking these outcome indicators to the broader wellness goals and Benchmarks is reviewed in the Oregon Commission on Children and Families publication, *Building Results I.*[xii]

Children Free From Maltreatment

In cooperation with the Oregon Commission on Children and Families; the Oregon State University Family Policy Program; NPC Research; and the Oregon Department of Human Services, Office of Family Health; the Oregon Department of Human Services, Child Welfare Division compared 2002 victimization records for 12,919 Healthy Start children who were 0–2 years old during 2002. This analysis included all children receiving both Basic and Intensive Services who were born between January 1, 2001, and December 31, 2002.[3] Thus, these data reflect a different (larger) sample than the other sections of this report.

Outcome measured	Findings
Children free from confirmed incidents of child maltreatment	98.8% of all Healthy Start's children aged 0–2 years were free from reported and substantiated maltreatment during 2002. The 2002 incidence rate of child abuse was lower for Healthy Start families (12 per 1,000 children, aged 0–2 years) than for non-served families in the same counties (22 per 1,000 children, aged 0–2 years). This Healthy Start victimization rate is the same as that reported in 2001-2002.

See Tables 10 & 11 in Appendix D.

In 2002, 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 2002 as shown below (also see Table 10 in Appendix D).

More children are victimized during infancy and toddlerhood than any other age period. National statistics show a higher incidence rate for this age group than was found for Healthy Start children. 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 11 per 1,000 for Healthy Start children.[xiii]

[3] 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. 2002 is the most recent full year for which data are available.

Table G. 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	12,919	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

Child maltreatment among families served by Healthy Start is lower than among non-served families in the same counties. Healthy Start is not able to reach all families with newborns within each county. 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 (as shown below and Table 10 in Appendix D).

Table H. Absence of Confirmed Cases Child Maltreatment Among Healthy Start and Non-Healthy Start Families

Children Aged 0–2	2001–02		2002-03	
	Healthy Start	Non Healthy Start	Healthy Start	Non Healthy Start
Number*	14,072	50,484	12,919	52,019
Free from maltreatment	98.8%	97.0%	98.8%	97.8%
Maltreatment rate per 1,000 children	12/1,000	30/1,000	12/1,000	22/1,000

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

The incidence rate for families screened and/or served by Healthy Start in participating counties is 12 per 1,000 children aged 0–2 years (See Table 11 in Appendix D). This group includes both lower and higher-risk families. In contrast, the incidence rate for non-served families (both lower and higher risk) in the same counties is substantially greater, at 22 per 1,000 children aged 0–2 years.

Type of maltreatment. Under Oregon law (ORS 419B.005), child abuse is defined in terms of physical assault, mental injury, sexual abuse or exploitation, neglect, and any threat of harm to the child's health and welfare. Of the Healthy Start children who were confirmed victims in 2002:

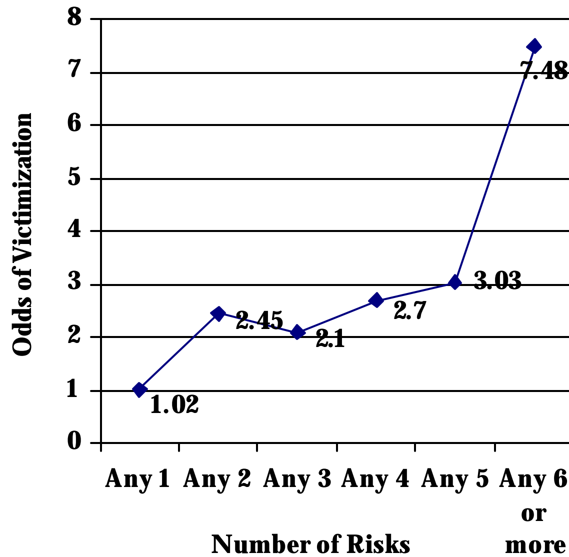
- 42% experienced threat of harm,
- 21% were neglected,
- 20% were physically abused,
- 4% suffered mental injury, such as exposure to violence or lack of bonding with a parent, and
- 13% had other forms of abuse or neglect.

It is important to note that threat of harm accounts for almost half of all abuse/neglect cases. This category includes all activities, conditions, and persons that place a child *at substantial risk* of physical abuse, neglect, or mental injury; for example, if there is domestic violence or sales of illegal drugs in the family's home.

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 12 in Appendix D). Risk characteristics include such factors as:

- ✓ being single at the child's birth,
- ✓ 17 years or younger,
- ✓ experiencing poverty,
- ✓ having a spouse/partner who is unemployed,
- ✓ not receiving early comprehensive prenatal care,
- ✓ unstable housing,
- ✓ experiencing marital or family conflict,
- ✓ a history of substance abuse or mental health problems, and
- ✓ having less than a high school education.

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



See Table 12 in Appendix D.

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 are 1.02 times greater for families with any one risk characteristic, but when families have any two risk characteristics, they are more than twice as likely to have a reported abuse incident, and the odds of abuse almost triple to 7.48 for families with 6 or more risk factors.

Even though escalating risk factors increase the probability for maltreatment, it should be noted that risk characteristics alone do not create 'destiny.' However, they do create situations where the barriers to be overcome are greater; these high-stress families are likely to have multiple, chronic stressors that need intensive, comprehensive services.

Additionally, analysis of Healthy Start data found that scores on the Kempe Assessment are strongly linked to rates of maltreatment. The rate of child abuse and neglect is 10 per 1,000 children for families who score in the "moderate" stress range. This rate climbs to 32 per 1,000 children for families with high stress, and to 78 per 1,000 for families at the highest stress levels.

97.6% of Healthy Start's Intensive Service families were free of maltreatment. Overall, 97.6% of the higher-risk families receiving Intensive Service with children aged 0–2 years were free from maltreatment during 2002, as shown below (see also Table 11 in Appendix D).

Table I. Child Maltreatment by Service Type

2001 and 2002 Births TYPE OF SCREEN/SERVICE	Number	YR 2002 Free from Maltreatment	Maltreatment rate per 1,000 children, aged 0–2 years
Basic Service	7953	99.4%	5/1,000
Intensive Service	3687	97.6%	24/1,000

The incidence rate for families who received Basic Service is lower (5/1,000) 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.

Lower incidence rates among high-risk families who do not receive Intensive Service may simply mean that child abuse is not being reported.

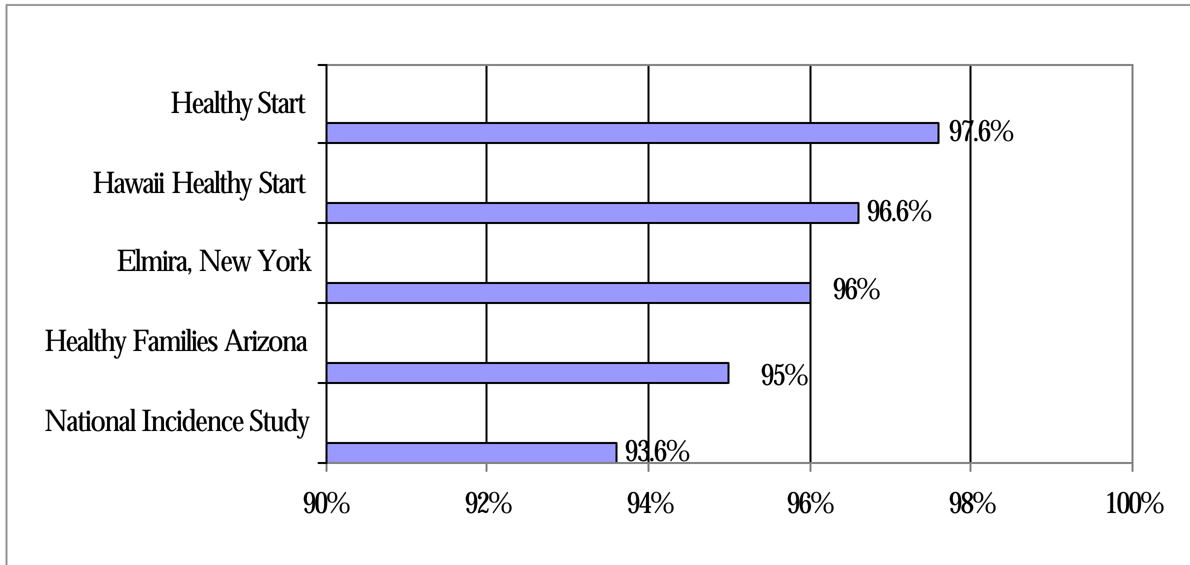
The incidence rate for higher-risk families who received Intensive Service (24/1,000) is greater than the rate for higher-risk families who declined Intensive (9/1,000). Both groups were identified as being at higher risk. This finding may be due to several factors. First, it may be that families who decline services have fewer needs or additional supports and therefore less need for Healthy Start services. Second, the lack of regular observation by a home visitor may also account for the lower rates of documented maltreatment, compared to similar families receiving Intensive Service. Because home visitors have regular contact with Intensive Service families, there is a greater chance that child maltreatment will be reported. In short, the lower rate among non-served higher-risk families does not mean that child maltreatment is not occurring, only that it may not be reported.

The percentage of higher-risk families free from maltreatment is comparable to rates found in other home visiting programs. The finding that 97.6% of higher-risk families (or 24 per 1,000 children) who receive Healthy Start's Intensive Service are free of maltreatment is consistent with other evidence of the effectiveness of home visiting to higher-risk populations (see Figure 6).

From a randomized trial of home visiting conducted in Elmira, New York, David Olds reports that 96% of poor, unmarried teens who were visited by a nurse for two years were free of maltreatment, in comparison to only 79% of poor unmarried teens who received no home visiting.[xiv]

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.[xv]

Figure 6. Higher-Risk Families Free of Maltreatment



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.[xvi]

Further, Oregon's maltreatment rate for higher risk families is less than half the national rate for higher-risk families (estimated in NIS-3 to be from 52 to 76 per 1,000 children, aged 0–2 years).

Early Comprehensive Prenatal Care

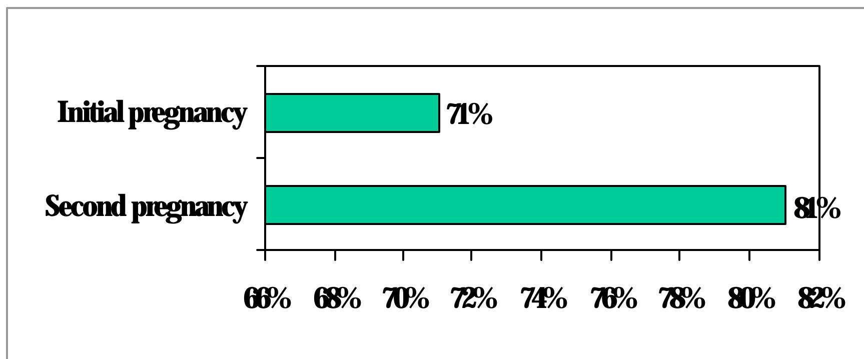
Early comprehensive prenatal care is associated with better developmental outcomes for infants and more positive outcomes for mothers. Early prenatal care begins in the first trimester of pregnancy. Comprehensive prenatal care includes medical, educational, social, and nutritional services. Early, comprehensive prenatal care is defined as receiving pregnancy-related care starting in the first trimester, and receiving a total of more than five visits to a medical professional during the pregnancy.

Outcome measured	Finding
Early comprehensive prenatal care for second pregnancies	81% of the mothers have received early comprehensive prenatal care for second pregnancies in contrast to only 71% for their initial pregnancies. This represents a 14% increase in the rate of early prenatal care for Healthy Start families.

See Table 14 in Appendix D.

Over two-thirds of Healthy Start's Intensive Service mothers received early comprehensive prenatal care for their first pregnancies (see Table 14 in Appendix D). 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 14 in Appendix D.

Among higher-risk mothers served by Healthy Start during FY 2002–03, rates of early comprehensive prenatal care increased by 14% for second (or later) pregnancies, compared to rates for their first pregnancies. During Intensive Service, 694 women became pregnant. Of these women, over two-thirds (71%) had received early comprehensive prenatal care for their first pregnancies. As shown above in Figure 7, 81% received early, comprehensive prenatal care for these second or later pregnancies.

Healthy Growth and Development

Healthy growth and development places children on a positive trajectory leading to readiness for school at age 5. Early and periodic screening for developmental delays provides the opportunity to identify developmental delays and initiate intervention. 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 4-6 month intervals.

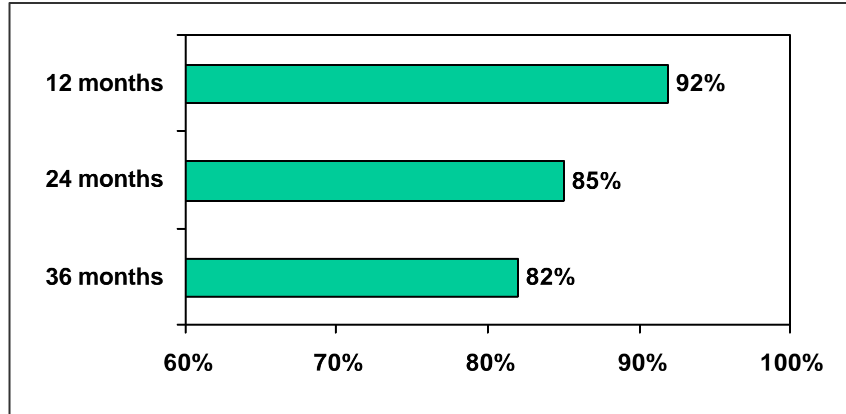
Outcome measured	Findings
Normal growth and development	Consistent with prior years, 87% of the children in higher-risk families receiving Intensive Services showed normal growth and development on their most recent Ages & Stages Questionnaire.
Early intervention for all children falling outside the normal range for development	95% of the children in higher-risk 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.

See Table 15 in Appendix D.

Together with parents, home visitors use the Ages and Stages Questionnaire (ASQ) [xvii] (originally titled the Infant/Child Monitoring Questionnaire) to monitor and screen the developmental progress of children in Healthy Start's higher-risk families. Screening is conducted during the first year at 4, 8, and 12 months, and subsequently at 18, 24, 30, 36 and 48 months of age.

Overall, 87% of the 2,060 Intensive Service children who received developmental screenings during FY 2002–03 were assessed as developing normally. As shown in Figure 8, 92% of the 12-month-olds, 85% of the two-year-olds, and 82% of the three-year-olds were within the normal range on the Ages and Stages Questionnaire (see Table 15 in Appendix D). 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).

Figure 8. Normal Child Growth & Development



See Table 15 in Appendix D.

Of those 268 Healthy Start children who were assessed as having a developmental delay, 120 (45%) were subsequently professionally diagnosed with a developmental disability, which translates into approximately 6% 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 enhances the probability of achieving the best possible outcomes by the time they enter school.

Adequacy of Health Care

Access to and utilization of well-child health care is critical to children's well-being and healthy growth and development. Many common conditions such as ear infections can have long-term consequences for children if left untreated.

Outcome measured	Findings
Adequacy of health care	96% of all children in higher-risk families receiving Intensive Services are linked to a primary health care provider. 90% of the children in higher-risk families receiving Intensive Services receive regular, well-child checkups.

See Table 16 in Appendix D.

Healthy Start works with parents to ensure access to health care. Home visitors emphasize the importance of children receiving regular well-child care and recommended immunizations. Using a Family Update form, visitors 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 (90%) of these higher risk Healthy Start children received regular well-child checkups during FY 2002–03. About 80% of higher-risk families who received Intensive Service are enrolled in the Oregon Health Plan.

Children who have regular well-child check-ups are rated as having better health than children who receive less health care.

At 6-month intervals, home visitors rate whether or not children are exposed to smoke in the home environment. During the current fiscal year, a slightly smaller percentage of Healthy Start children were free from passive smoke exposure (58% in 2002-03, compared to 63% in 2001-02) (see Table 16 in Appendix D).

Home visitors reported that 89% of the children from higher-risk families had good or excellent health and 84% 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 than children who received less health care ($p < .001$).

Hispanic children were generally perceived by workers as having better health and nutrition, compared to White/Caucasian children, and were far less likely to be exposed to passive smoke. Only 15.5% of Hispanic children were reported as having passive smoke exposure, compared to 43.3% of White/Caucasian children.

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.[xviii] Healthy Start children appear to be reaching this last goal.

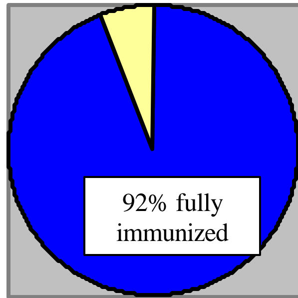
Outcome measured	Findings
Adequacy of immunizations	Healthy Start staff report that 91% of all the children in higher-risk families receiving Intensive Service are up-to-date with immunizations and another 7% have received some vaccines but are not fully up-to-date. Healthy Start staff report that 92% of the children in higher-risk families who have received Intensive Services for 24 months or more are fully immunized at 2 years of age.

See Table 16 in Appendix D.

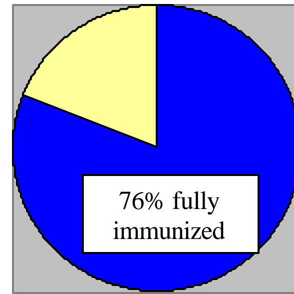
Healthy Start workers reported that 91% of Healthy Start babies were up-to-date on their immunizations, and an additional 7% have received some vaccines but are not fully up-to-date. Very few parents (<1%) have chosen *not* to immunize their child because of cultural or religious beliefs. The methods for collecting this information vary by site. In some counties, Healthy Start workers ask parents to share information from the child's immunization record; other sites rely on parent self-report.

The United States National Immunization Survey,[xix] an ongoing survey that provides estimates of vaccination coverage among children aged 19-35 months, showed that 76% of Oregon's two-year-olds were fully immunized. 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 9).

Figure 9. Percentage of Children with Immunizations at Two Years



Healthy Start Two-Year-Olds Receiving Intensive Services, 2002–03



Oregon Two-Year-Olds, 2001[4]

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[4] Oregon immunization rate for two-year-olds from the National Immunization Survey, 2001

Family Effectiveness As Child's First Teacher

A strong relationship exists between children's development and the environments in which they live.[xx] Positive learning environments in the home lead to readiness for school. When parents are encouraging, stimulating, responsive, and genuinely enjoy interacting with their children, children gain the skills and confidence to succeed in school when they reach kindergarten.

Outcome measured	Findings
Family effectiveness as child's first teacher	73% of the children experience above-average home learning environments as measured by the Home Observation for Measurement of the Environment (HOME) at 12 months. 76% of the parents show above-average responsivity and affection to their child as measured by the Home Observation for Measurement of the Environment (HOME) at 12 months. 73% of the parents show above-average involvement in child learning activities as measured by the Home Observation for Measurement of the Environment (HOME) at 12 months. 92% 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.

See Table 17 in Appendix D.

At 12 months and again at 24 months, home visitors use a standardized observation tool, the Home Observation for Measurement of the Environment (HOME) Inventory for Infants and Toddlers,[xxi] to review the home environment from the child's perspective. Numerous studies show the HOME Infant-Toddler Inventory to be a strong predictor of developmental outcomes for kindergarten children, especially in the cognitive and language areas.[xxii] Raters generate a numeric score, which is then 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).

Healthy Start children have supportive home environments. Almost three-fourths (73%) of Healthy Start's higher-risk families receiving Intensive Services 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, 79% provide above-average learning environments (see Table 17 in Appendix D). HOME scores tend to remain stable over the first two years of life. Parents who are providing a supportive learning environment for their child at 12 months are also likely to be effective as the child's first teacher at 24 months.

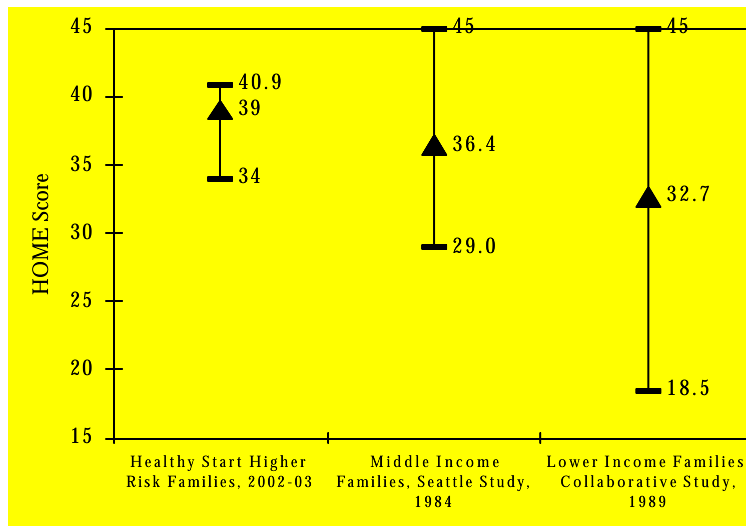
Three sub-scales of the HOME are most highly correlated with children's cognitive development: 1) parent responsivity to the child, 2) parent involvement and encouragement of the child and 3) availability of age-appropriate toys and learning materials. Analysis of the sub-scales shows that (note that these percentages are based on different groups of people and are not comparing changes over time for the same families):

- 76% of Healthy Start's higher-risk families are well above average in the degree of positive emotional and verbal responsivity they show to their children at 12 months of age. After 24 months, 82% of the families are well above average.
- 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, 79% are well above average.
- 73% 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, 78% of families are well above average at encouraging children to advance developmentally.

Based on HOME scores when the child is 12 months old, 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 are 18 years or older have intellectually more advantageous home environments than children whose mothers are 17 years or younger ($p < .0001$).

Home environments of Healthy Start one-year-olds compare favorably to others. The home environments of Healthy Start one-year-olds 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 Means with 1-Year HOME Means from Other Populations



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

The home environment of Healthy Start one-year-olds is similar to that provided by middle socioeconomic status (SES) families in the Seattle Study of healthy, normally developing children.[xxiii] 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.[xxiv]

Finally, it is worth noting that parents report that Healthy Start is extremely helpful in supporting the parenting role. Of families with an indicated need for parenting help at intake, 92% reported that Healthy Start "helped a lot" by providing good information about parenting by the time of the child's 6-month birthday. This was the area that received the ***highest rating*** in terms of how helpful the program was for families.

Family Literacy Activities

When families introduce children to the world of books early in their childhood, children are more likely to have appropriate language abilities when they enter school.[xxv] Thus, families who read or tell stories to their young children are giving them a head start toward success in school. Healthy Start families appear to be doing a good job promoting early childhood literacy activities.

Outcome measured	Findings
Family literacy activities	81% of the higher-risk Intensive Service families read or look at picture books with their 12-month-old child at least 3 times per week. At 24 months, 89% of the families read to their child at least 3 times per week. 97% 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, 99% of children achieve this goal. From the 12- to the 24-month assessment, there was a 22% increase in the number of families who have at least 10 books (of any type) in the home (55% vs. 67%). Between intake and 6 months, parents reported engaging in significantly more activities that support early literacy, including telling stories, reading books, and playing games with their children. At 6 months, most families reported doing these things at least several times per week.

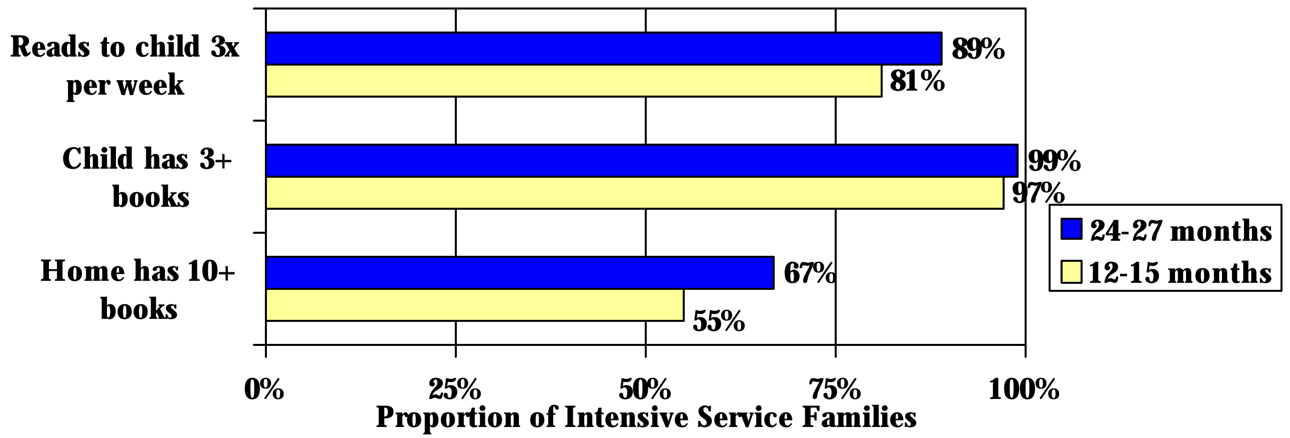
See Table 18 in Appendix D.

Families are involved in early literacy activities. Well over three-fourths (81%) of Healthy Start's higher-risk families "read" picture books with their one-year-olds at least three times per week. Reading to a toddler typically involves looking at pictures and naming objects. 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.[xxvi]

Almost all Healthy Start higher-risk families with one-year-olds (97%) have at least 3 books of their own. 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 22% (see Table 18 in Appendix D). Much of Healthy Start's success in encouraging early literacy can be attributed its partnerships with State and local libraries, and to programs' ongoing commitment to obtain books and distribute them to participating families.

Compared to White/Caucasian children, Hispanic children were less likely to have books read to them regularly (76% vs. 83%), and were less likely to have books available in the household. 5.2% of Hispanic children did not have three books of their own, compared to 1.4% of White/Caucasian families, and 67% did not have 10 books in their home (compared to 46% of White/Caucasian families).

Figure 11. Family Literacy Activities



See Table 18 in Appendix D.

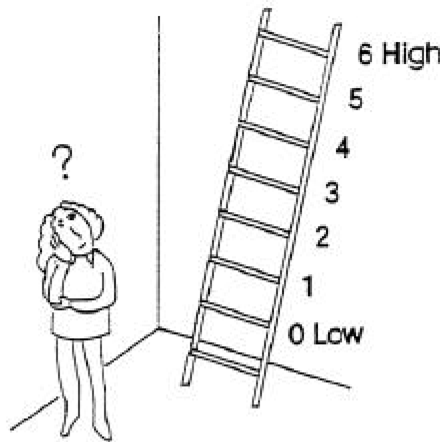
Adequacy of Parenting Skills

Parenting skills support children's healthy growth and development. Parent knowledge and skills lead to realistic expectations and developmentally appropriate support for children's learning and development.

Outcome measured	Findings
Adequacy of parenting skills	After 12 months of Intensive Service 83% of the parents in higher-risk families receiving Intensive Service report that they have improved their parenting skills, as measured on the Parenting Ladder.

See Table 19 in Appendix D.

Figure 12. Parenting Ladder



After 12 months of Intensive Service, parents rate their current knowledge and skills on a "Parenting Ladder" (see Figure 12). 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 since parents have shifted their frame of reference about their initial knowledge and skill level as a result of program participation.[xxvii]

Parenting skills improve. After 12 months of Intensive Service, 83% of higher-risk families report improved parenting skills over the time when their child was born (see Table 19 in Appendix D). Parents report similar gains for individual skills. After 12 months of Intensive Service:

- 74% report improved knowledge of child development
- 69% report that they feel more confident in knowing what is right for their child
- 63% report that they are better able to help their child learn

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.

Outcome measured	Findings
Quality of parent-child interactions	74% of the higher-risk families receiving Intensive Service consistently engage in positive parent-child interactions by 6 months, in contrast to 61% during the first month of life, as reported by home visitors, based on regular observation of family practices.

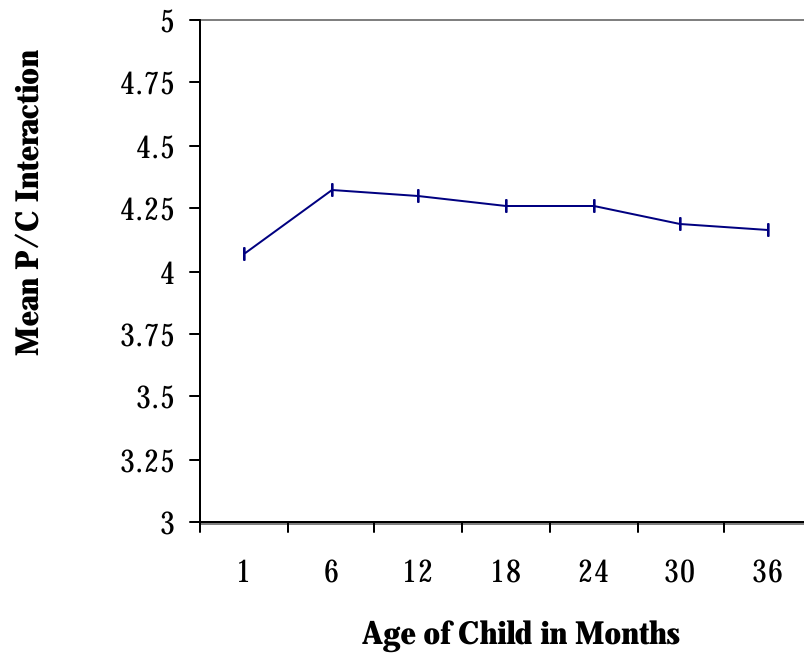
See Table 20 in Appendix D.

Positive parent-child interactions increase. 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.

During the first month of life, 61% 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 74% (see Table 20 in Appendix D). At 12 months, parent-child interactions continue to be positive and supportive for approximately the same percentage of families (72%). These results are consistent with prior years.

Parent-child interactions are affected by children's developmental stage. The mean ratings of *consistent* positive parent-child interactions are related to the child's age (see Figure 13). 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. Data from FY 2002–03 show fairly consistent mean ratings across the other age groups.

Figure 13. Mean Parent-Child Interaction by Age of Child



With continued support from Healthy Start, almost three-fourths of the higher-risk families maintain positive interactions with their children through the critical and demanding first three years of life.

Utilization of Appropriate Health Care

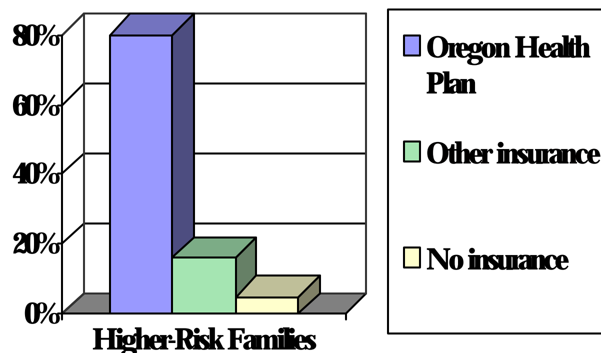
Health care is a basic necessity for all families. Those individuals without access to health care are more likely to have poor health than those who receive regular, preventive care. Health has an impact on a variety of life course outcomes. For example, adults with poor health are less likely to find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

Outcome measured	Findings
Utilization of appropriate health care	61% of the parents in higher-risk families receiving Intensive Service are linked to a primary health care provider, according to Healthy Start workers. 95% of the parents in higher-risk families receiving Intensive Service have some form of health insurance; 80% are on the Oregon Health Plan. 76% of the higher-risk families receiving Intensive Service never use emergency services for routine health care.

See Table 21 in Appendix D.

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.

Figure 14. Health Insurance Status of Intensive Service Families



Healthy Start works with families to ensure access to the Oregon Health Plan for all those who are eligible. Approximately 80% of the higher-risk families receiving Intensive Service were enrolled in the Oregon Health Plan during FY 2002-03 (see Figure 14). Only 5% have no health insurance.

Approximately 61% of the higher-risk families have a primary health care provider; this figure is somewhat lower than last year (staff reported that 77% of families in 2001-02 reported being linked to a primary health care provider). Further, Hispanic families were much less likely to have a primary health care provider compared to White/Caucasian parents: Only 48% of Hispanic parents were reported to have a primary health care provider, compared to 71% of White/Caucasian parents.

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 76% of higher-risk Healthy Start families

have never used emergency room services for routine health care. Another 21% have only used these services once or twice during the past year (see Table 21 in Appendix D).

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.

Outcome measured	Findings
Adequacy of basic resources: food, housing, transportation, health and dental care	According to Healthy Start staff, after 6 months of Intensive Service, Healthy Start families had: • An 82% decrease in the number of families needing WIC • A 70% decrease in the number of families needing health insurance • A 39% decrease in families needing educational assistance Between 30-50% of parents also reported that Healthy Start "Helped A Lot" to meet their needs for: • Basic household resources • Physical health problems • Emotional issues • Substance abuse problems • Help with domestic violence • Basic child resources • Education, job training, and employment

See Table 22 in Appendix D.

Generally, a significantly smaller percentage of families were seen as needing a variety of supports following 6 months of Healthy Start services. For example, out of 74 families who needed WIC services at intake, only 13 (17.6%) still were reported by workers as needing this service at the 6-month update. Similarly, while 117 were seen as needing Medicaid/OHP at intake, only 35 (29.9%) were reported as needing this service at the 6-month follow up.

These figures illustrate the work that Healthy Start workers are doing to refer families to needed services; however, it is unclear whether the workers' assessments of ongoing family need reflect the extent to which families actually maintain and follow-through with these referrals. For example, 130 families were seen as needing drug and alcohol counseling; of these families only 56 (43.0%) were rated as still needing this service at the 6-month follow up (see Table 22 in Appendix D). It seems likely that Healthy Start workers are making this type of referral for families; however, whether this means that these families are successfully engaging in substance abuse treatment services is unclear.

Healthy Start successfully helps meet families' needs for basic resources. At intake, 12% of higher-risk families had inadequate food in their household, compared to 4% after 12 months of Intensive Service. 14% had inadequate clothing or other material goods at intake, compared to 3% at 12 months, and 17% had inadequate child supplies (diapers, etc.) at intake, compared to 4% after 12 months of service. Further, after 12 months of service, 52% of Healthy Start families reported that their worker had helped them "a lot" with basic needs; 39% reported a lot of help with health-related issues; 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 basic resources; 36% had not received needed help with health issues, and 22% had not received needed help with education and training. Additionally, at 12 months, 33% of Healthy Start parents reported that their worker helped them "a lot" with basic child-related resources; only 7% 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 either 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 services at intake generally reported that Healthy Start had helped them to meet these needs by the time the child was 6 months of age. Results below show 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 emotional support, child-related materials and resources, and household resources; Healthy Start was seen as extremely helpful in these areas. While Healthy Start was seen as at least somewhat helpful in all of these areas, fewer families reported that services helped "a lot" in terms of some of the more difficult problems, such as domestic violence, substance abuse, and their general financial situation.

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

Issue or Need	% Reporting HS Helped "A Lot"	% Reporting HS Helped "A Little"	Total Number of Families
Emotional Issues	51%	35%	198
Basic Child Resources	49%	38%	201
Basic Household Resources	44%	45%	226
Criminal Activity	42%	16%	19
Physical Health Problems	39%	24%	107
Education, Job Training or Employment	38%	33%	181
Domestic Violence	37%	30%	30
Substance Abuse Problems	32%	32%	34
Financial Difficulties	29%	39%	200

Reduction in Family Risk Behaviors

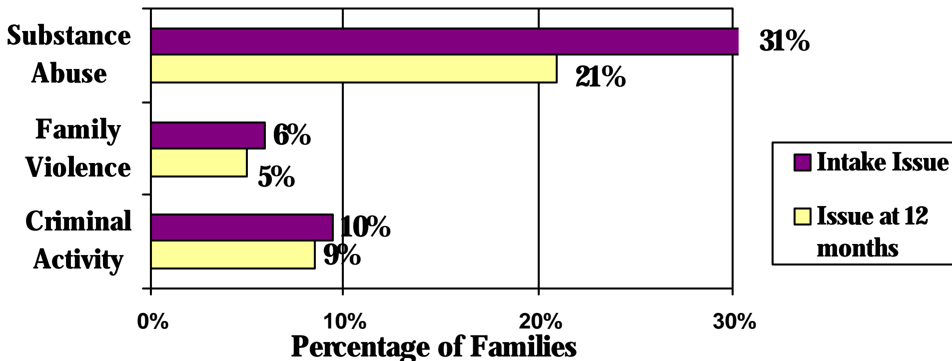
Risk factors such as substance abuse, domestic violence, and criminal activity have a negative impact both on the ability of families to provide physical and emotional care to their children and the children's brain development.

Outcome measured	Findings
Reduction in number of risk factors	The number of families with substance abuse decreased 20% from intake to the baby's first birthday. Statewide, there were no decreases in the rates of domestic violence or criminal activity. Healthy Start families showed a 32% reduction from intake to 12 months in the number of families experiencing 2 or more of these risks. Parents who remained in the program at least 6 months reported a significant decrease in parenting stress.

See Table 23 in Appendix D.

Reductions in risk processes were observed for Healthy Start's Intensive Service families. A sample of 585 higher-risk families, with information at intake and 12 months, was examined for issues relating to substance abuse, family violence, and criminal activity. As shown in Figure 15, there were small reductions in the number of families with these issues over the 12-month period.

Figure 15. Families with Risk Issues After 12 months of Intensive Service



See Table 23 in Appendix D.

For the subset of families with data available for each of these indicators, 31% of the families showed one or more of these risk factors at intake, most often substance abuse. By 12 months, only 21% of these families had one or more risks, a percentage decrease of 32% (see Table 23 in Appendix D).

Parents also complete a short version of the Parenting Stress Index (PSI).[xxviii] 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. High levels of parenting stress as measured by the PSI have been shown to be associated with higher likelihood of child abuse and neglect.

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 respond to stress effectively and maintain a stable home life, even in adverse circumstances.

Outcome measured	Finding
Coping strategies	After 12 months of Intensive Service, 83% of families were rated as having effective coping strategies, compared to 76% at the time of the child's birth.

At 6-month intervals, home visitors report on coping strategies and strengths for each parent, including such attributes as coping effectively with stress, managing anger constructively, understanding and respecting the child's needs, positive problem-solving skills, and the capacity to set realistic personal goals.

Coping strategies increase with the amount of service received. For families with ratings at both intake and 12 months, there is a statistically significant improvement in the workers' ratings of parents' use of effective coping strategies. After 12 months of Intensive Service, approximately 83% of Healthy Start's higher-risk families are reported to have effective coping strategies compared to 76% at the time of their child's birth.

After 12 months of Intensive Service,

- 78% of participating mothers cope effectively with stress
- 81% of participating mothers have good problem-solving skills
- 87% of participating mothers are able to set realistic personal goals for education or self-improvement

Family Satisfaction

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 6 months and then annually thereafter.

Outcome measured	Findings
Family satisfaction with Intensive Service	87% of higher-risk families receiving Intensive Service say Healthy Start has "helped a lot" in terms of meeting their child's needs; 12% say it helped "a little." Over three-fourths of families also report that Healthy Start helped them "a lot" in obtaining community services and dealing with serious family issues, a substantial increase from last year. 91% of parents report that Healthy Start home visitors "always" listen to what they have to say. Over 80% of parents agree or strongly agree that Healthy Start home visitors deliver services that are consistent with a strengths-based model of services.

See Table 24 in Appendix D.

Families generally report that they find Healthy Start services very helpful.[5] Almost all the parents (99%) reported that Healthy Start has helped them meet the needs of their child and understand their child's behavior and feelings (see Table 10 in Appendix D). About 87% rated Healthy Start as "helping a lot" with meeting their child's needs and 89% rated Healthy Start as "helping a lot" with understanding their child's behavior and feelings. 78% of families felt that Healthy Start had helped them to solve serious problems in their lives.

Families also rated the extent to which Healthy Start has helped meet their needs for community services such as education or childcare. More than three-fourths (78%), a substantial increase from last year (67%) reported that Healthy Start helped " a lot" in terms of assistance with community services; while 19% said Healthy Start "helped a little." Assistance in this area also depends on the availability of resources and the ability of the family to access the resources. For example, childcare may be available, but the family may not be able to afford what is available.

Healthy Start's family-centered services and supports are designed to facilitate family decision-making, capabilities, and competencies. Families are very satisfied with the treatment they receive through Healthy Start (see Table 24 in Appendix D).

More than three-fourths of the families say they are almost always treated well and respectfully:

- 91% feel that their home visitor *almost always* really listens to them.
- 83% *almost always* find the information they receive easy to understand.
- 72% say that, *almost always*, they can decide what help they receive from their visitor.

[5] 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.

- 79% say that, *almost always*, the visitor helps them find a solution to a crisis they are experiencing.

Parents also reported the extent to which Healthy Start workers delivered services in ways consistent with a strengths-based model of services. This measure reflects parents' perceptions of the extent to which services were strengths-oriented, culturally sensitive, and goals-oriented. These items are listed in Table K below. As can be seen, parents were overwhelmingly positive in their assessment of Healthy Start workers' ability to provide strengths-based, family-centered, culturally sensitive services that were also goal-oriented. Responses were slightly less positive for items related to the extent to which workers allow parents to decide on their own goals and the amount of help they provide in decision-making.

Table K. Parent Report of Home Visitor's Strengths-Based Service Delivery

My Home Visitor:	**Strongly Agree or Agree**	**Not Sure**	**Strongly Disagree or Disagree**	**Sample Size[6]**
Cultural Sensitivity				
1. Respects my family's cultural and or religious beliefs	94%	5%	1%	217
2. Provides materials that positively reflect our culture	93%	6%	1%	217
3. Gives me information that is easy to understand	99%	15%	0%	218
Strengths-Oriented/Family-Centered				
1. Gives me choices in the kinds of services I receive	98%	2%	0%	218
2. Respects me as a parent	97%	3%	1%	217
3. Seeks my input when assessing my child	97%	3%	0%	215
4. Helps me in decisions I make about myself and my family	81%	14%	6%	215
Goals Orientation				
1. Helps me think about what I want in the long term	97%	2%	1%	217
2. Helps me find a solution if I have a problem	95%	4%	1%	217
3. Lets me decide what goals I want to work towards	82%	17%	2%	1187

[6] All of the items in this table were added to the Parent Survey this year, with the exception of the final item in the table, which was an original item. Because this last item was on previous versions of the survey, there are many more respondents who have answered it.

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

> "The dedication my Healthy Start worker has shown is amazing. She is incredibly understanding and has shown so much compassion since I started seeing her, when my son was born."
>
> "My Healthy Start lady is the best! She has helped me with my parenting skills. She has also given me great moral support and praise, which has helped me to be a better mom and a more confident mom."

Parents Speak About Healthy Start

"[My worker] is awesome. She built me up so much. She made me feel confident and capable to succeed in life. She is the one who motivated me to go to school and make a better life for us. She believed in me, and helped me to believe in myself. She also gave me so many resources to understand my child's special needs."

Recommendations: FY 2002–03

The outcome evaluation shows clearly that many children and families benefit from Healthy Start services. Healthy Start appears to be especially effective in helping to link families to needed basic resources; supporting the development of positive home environments for children; supporting positive parent-child interactions; supporting parents in ensuring their children are fully immunized; increasing early, comprehensive prenatal care for subsequent pregnancies; and, perhaps most importantly, reducing the incidence of substantiated child abuse and neglect.

Despite these many successes, some of Healthy Start's higher-risk families continue to struggle, experiencing conditions that place both adults and children at risk for poor outcomes. Such families may face a myriad of issues that need to be addressed, and while supportive services like Healthy Start can ameliorate some of negative effects of these difficult circumstances, such programs cannot be expected to act as a "magic bullet".[xxix] Serving these families successfully may take longer, and involve providing a more intensive and comprehensive array of services than can be easily obtained in many communities.

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 very early in the critical early weeks of the child's development. In addition, this year brought expansion of Healthy Start to new counties, which required local and state coordination and implementation efforts and will contribute to a broader availability of Healthy Start services in coming years. Based on the findings from this fiscal year, we make the following recommendations.

1. **Continue to work to provide a continuum of non-stigmatizing Healthy Start service to all Oregon families with infants.** 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, 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.
2. **Refine the comprehensive screening and assessment system to ensure that all consenting families are offered service.** Healthy Start's comprehensive screening and assessment system continues to go through significant changes. Sites are developing strategies for effectively identifying and screening all first-birth families. Counties vary considerably in their ability to identify and screen first birth families; targeted technical assistance may be needed in particular counties to ensure successful screening processes. Given the significantly fewer families who were identified as being at higher risk this year (47% vs. 68% in FY 2001-02), the sensitivity of the screening tool should be monitored. For example, it may be important to compare the rates of high-risk families for counties using the screening tool as a parent-report instrument compared to those who use staff to complete the tool. Families potentially in need of services could go unidentified if the screening tool is not accurately identifying higher-risk families. Counties also 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). This second phase is critical to identify those families most in need of service.

3. **Continue to provide high quality long-term Intensive Services for higher-risk families throughout the early childhood years.** 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. To build on these successes, continued efforts should be made to reduce the attrition rate among higher-risk families. When families do leave before graduation, they should be linked whenever possible to other quality services within the early childhood system of supports to ensure the best outcomes for themselves and their children.

4. **Maintain and expand quality assurance mechanisms to ensure high quality service throughout the system.** Healthy Start's impact on the Oregon Benchmarks will depend ultimately on maintaining the quality and integrity of the Healthy Start services. Healthy Start uses a framework of research-based essential components to guide supports and services. In addition, quality assurance standards have been developed for Oregon's Early Childhood System of Supports and Services. Healthy Start has embarked on a systematic Quality Assurance initiative during FY 2002–03; the results of these efforts should be evaluated in next year's report. Further, quality assurance efforts should draw on the county-specific data contained in this report to provide technical assistance to counties whose outcomes are not meeting program standards. Integration of quality assurance efforts into all aspects of service will help to ensure that Healthy Start supports families in achieving positive outcomes. Reductions in OCCF staff and training resources will be a challenge that needs to be addressed in upcoming years to ensure continued high quality programming. The current effort to pursue a multi-site credential from Healthy Families America in 2004 and 2005 is likely to support a strong system of quality assurance, and should be supported.

5. **Continue to provide quality statewide training.** Resources have been used this year to develop statewide training and networking for Healthy Start staff and their supervisors. A statewide training committee comprised of local staff and program partners has been established and used as a vehicle to plan several training initiatives. For example, OCCF and Linn-Benton Community College have collaborated to provide on-line training in infant-toddler development to staff from Healthy Start and its collaborative partners. Although not a focus of evaluation this year, continuing emphasis on accessible, regular training will help to ensure that Healthy Start staff provide high quality services to families.

6. **Continue tracking Healthy Start activities, outputs, and outcomes through a common performance measurement system.** Performance measurement allows managers to be accountable for results. The Oregon Commission on Children and Families is to be commended for its leadership in establishing a standard system for data management that allows the effective tracking of Healthy Start activities and outcomes for sites across the state. Many improvements have been made to the performance measurement system over the past ten years. Nevertheless, the system continues to need

refinement to focus on the data elements that are the most powerful indicators of progress. In particular, Healthy Start should consider developing specific benchmarks it would like each site to achieve based on each site's current level of performance. Last year, in partnership with OCCF staff, the evaluation team began doing site visits to provide each site with its specific outcomes, and to begin to work with sites to address any identified areas in need of improvement. This process will be repeated in the coming year, and integrated with other statewide technical assistance site visits. Efforts should be continued to utilize evaluation outcome data to improve overall program quality.

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