Oregon's Healthy Start Maltreatment Prevention Report 2007-08

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OREGON'S HEALTHY START: MALTREATMENT PREVENTION REPORT 2007-08

One of the primary goals of Healthy Start is to ensure that children are free from maltreatment, including physical and emotional neglect and abuse. This report presents data on reported child maltreatment among families participating in Oregon's Healthy Start program, as well as those not served through Healthy Start. Information on other important outcomes of the Healthy Start program can be found in the Healthy Start Annual Status Report (www.oregon.gov/OCCF).

Child Maltreatment in Context

Statewide, the total number of reported victims of child abuse or neglect fell during 2007-08, after increasing steadily for the past several years. In 2007-08,[1] Oregon's Office of Child and Family Services (CAFS) reported that there were 10,716 victims ages 0-17 (compared with 12,043 in 2006-07 and 11,255 in 2005-06). This overall decrease in maltreatment victims is likely the result of a number of factors, including but not limited to: a relatively well-funded systems of services and supports for low-income families during this fiscal year; several demonstration and other programs specifically targeting the needs of substance abusing parents, especially methamphetamine users; partially restored funding for Healthy Start during the 2007-08 fiscal year; and other social and community factors.

[1] Note that CAFS data are reported based on the Federal Fiscal Year, while this Healthy Start report is based on Oregon's statewide fiscal year.

Key Factors Influencing Maltreatment

CHILDREN'S AGE

Youngest children are clearly the most vulnerable to abuse and neglect. For example, in Oregon during 2007:

- 49% of all substantiated victims of abuse or neglect were under age 6;
- 30% (3,172 victims) were under age 3;
- 14% (1,497 victims) were children under one year of age;
- Children ages 0 to 6 comprise 39% of the children served in foster care in Oregon;
- Of 12 child fatalities related to abuse and neglect in Oregon in 2007, 10 were younger than age 5 (ODHS, 2007).

Consistent with Oregon statistics, national data also show that very young children are the most likely to be abused, with some studies finding that infants under 1 year of age are more than twice as likely to suffer abuse than teenage children (English, 1998). The vulnerability of these youngest children underscores the importance of programs like Healthy Start that aim to prevent maltreatment in the earliest years of the child's life.

SUBSTANCE ABUSE

One of the key factors influencing child maltreatment is parental substance abuse. It has been estimated that 50% to 75% of all families involved with child welfare services nationally have a drug or alcohol problem (U.S. DHHS, 1999). In 2007 in Oregon, 39% of founded abuse reports involved suspected drug and/or alcohol abuse by the parents. Similarly, 55% of Oregon children in foster care had a parent with drug/alcohol abuse issues. Increased rates of maltreatment and foster care placements, both in Oregon and nationally, have been attributed in particular to increases in methamphetamine use and production during the past eight to 10 years. Methamphetamine is not just an Oregon phenomenon. While there are no current national statistics available, states and counties where methamphetamine is most prevalent report that the percentage of children who have entered foster care has increased significantly. This finding is even more striking given data suggesting that the number of children in foster care has decreased nationally. Methamphetamine has contributed to an increase in out-of-home placements and an increase in the number of children who cannot be reunified with their birth families. Effective prevention of child maltreatment thus requires not only effective identification and treatment of parents with substance abuse issues, but preventive efforts aimed to reduce alcohol and drug use.

FAMILY POVERTY & PARENTAL STRESS

While child abuse and neglect occur across the socioeconomic continuum, poverty has been consistently found to be a key risk factor for child abuse and neglect (Sedlak & Broadhurst, 1996; Lee & George, 1999). Research has also found that serious abuse and neglect are 22 times more likely in very poor families, with lowest income families disproportionately represented in national statistics (U.S. Department of Health and Human Services, 2002). The effects of poverty are difficult to isolate, however, as poverty is associated with multiple other stressors that increase the risk of abuse, such as homelessness, unemployment, single parenting, lower education, social isolation, and community violence (Brooks-Gunn & Duncan, 1997). Socioeconomic conditions that increase poverty, or increase the stressors associated with poverty (e.g., by decreasing support services to those most in need) are likely to be associated with increased rates of child maltreatment.

Theoretical models of child maltreatment often focus on the role of parenting stress as a key risk factor for maltreatment, emphasizing that the multiple chronic stressors of poverty contribute to higher parental stress and increased risk of abuse (Abidin, 1990; Rutter, 2007). Thus, comprehensive programs such as Healthy Start that help improve family self-sufficiency, increase parenting skills, provide social support, and link families to other needed services have been postulated to being critical to the prevention of maltreatment, especially among at-risk families.

CUMULATIVE RISK

While a number of independent risk factors have been associated with increased risk of maltreatment, what is particularly clear is that children in families with greater numbers of risks are most vulnerable (Appleyard, Egeland, van Dulmen, & Sroufe, 2005; Nair, Schuler, Black, Kettinger, & Harrington, 2002). This model of "cumulative risk" suggests that the odds of maltreatment increase as the number of family, social, and child risk factors increase, and has been supported in a number of large-scale studies. In Healthy Start, the role of cumulative risk has been documented in numerous evaluation reports, which consistently show that the odds of a founded maltreatment report increase (sometimes exponentially) as the number of family

risk factors increase (Green, Tarte, Lambarth, Snoddy, & Nuzzo, 2009).

Home Visiting Programs Can Prevent Maltreatment

There is growing evidence that home visiting is an effective means of preventing abuse and neglect. High-quality, intensive home visiting services delivered to those most at risk of poor child and family outcomes has been found to reduce the incidence of child maltreatment (Sweet & Appelbaum, 2004; Green et al., 2008; Harding, Galano, Martin, Huntington, & Schellengach, 2007; Olds et al., 1999). In their meta-analysis of more than 60 home visiting research studies, Sweet and Appelbaum (2004) concluded that programs that were more successful at reducing the risk factors for child maltreatment were those programs that:

1. Identified preventing child abuse as an explicit program goal;
2. Utilized paraprofessional staff (instead of either professional or non-professional staff);[2] and
3. Focused on high-risk parents.

Conversely, home visiting programs that have not been well implemented, and that are less successful at identifying and working with serious problems such as parental substance abuse, mental illness, and severe parenting stress have been less successful (Aos, Lieb, Mayfield, Miller, & Pennucci, 2004).

The need for well-implemented programs is illustrated by the divergent set of findings from evaluations of home visiting programs. Mitchell-Herzfeld, Izzo, Greene, Lee, and Lowenfels (2005), in their randomized study of Healthy Families New York (which, like Oregon's Healthy Start program, is an HFA-accredited multi-site system) found significant reductions in the use of harsh discipline techniques that are strongly related to maltreatment. They also found that Healthy Families parents were more likely than parents in the control group to have better birth outcomes, breastfeed their babies, and have health insurance for their children.

Several other states implementing accredited Healthy Families America programs have found evidence for its effectiveness in reducing child abuse and neglect. The State of Arizona Auditor General's report found that 97% of the Healthy Families Arizona higher risk families who received at least six months of home visitation were free of substantiated reports of abuse or neglect. This figure contrasts with 92% for comparison group families during a similar time period (Norton, 1998). Healthy Families Florida (Williams, Stern & Associates, 2005), also an HFA-accredited program, found significantly lower rates of maltreatment among children whose families received services consistent with the HFA model (frequent home visits, early onset of services, and expected duration of services) compared with families not served by the program.

In contrast, two other evaluations, the first of the Hawaii Healthy Start program and the second of Healthy Families Alaska, found no evidence that Healthy Families America home visiting reduced child maltreatment or associated risk factors (Duggan et al., 2004; Duggan et al., 2006). However, the process evaluations for both of these studies indicated significant implementation problems (Duggan et al., 2004, 2006). Further, neither the Hawaii nor the Alaska programs were accredited HFA statewide systems.

These studies, as well as studies of the Nurse-Family Partnership Program (Olds et al., 1999) suggest that quality of program

[2] Paraprofessionals were defined as individuals without formal training and who typically come from the same community as those being visited. Professionals had formal training and experience in help-giving; non-professionals had formal education but no prior home visiting training.

implementation can influence the success of home-visiting programs to achieve desired outcomes.

It is also important to recognize that while child maltreatment represents one extreme (negative) end of the continuum of parenting quality, many children who are not neglected or maltreated can benefit from programs such as Healthy Start. Early learning programs that help parents to provide a more nurturing and developmentally supportive environment for their children have been shown to have positive (and cost-beneficial) long-term outcomes, including school success and reduced juvenile justice involvement (Shonkoff & Phillips, 2000). The Healthy Start Annual Status Report (Green et al., 2009) presents results for parenting and child outcomes for Healthy Start families.

Finally, it should be noted that there is controversy over the use of actual reported maltreatment rates as an outcome in studies of the effectiveness of home visiting programs (Olds, Eckenrode, & Kitzman, 2005). The primary concern is that because home visitors are mandated reporters of maltreatment, the very act of providing home visits for very at-risk families may increase, rather than decrease, reported maltreatment. Home visitors work closely with very high-risk families and thus may identify neglect or abuse that would otherwise have gone unreported, a consequence sometimes referred to as a *"surveillance effect."* Because of this possibility, many studies have elected not to measure actual maltreatment rates. A more common approach is to measure a program's ability to strengthen family protective factors and reduce family risk factors that are associated with increased risk for maltreatment. Oregon's Healthy Start program does conduct an annual evaluation of these risk and protective factors and finds positive results (Green et al., 2009).

A further complication in evaluating child abuse prevention is the overall low incidence of child maltreatment in the population (State of Arizona Office of the Auditor General, 2000). For example, in Oregon, only about 2% to 3% of the age 0-3 population is maltreated. Detecting reductions in these so-called "low frequency events" is challenging for statistical reasons, and requires extremely large research samples. However, given the potential costs to individuals and society, even small reductions in maltreatment incidents can have significant and cost-beneficial long-term effects (Miller, Cohen, & Wierseman, 1996).

Because reducing incidents of child maltreatment is one of the primary goals of Oregon's Healthy Start program, the program has elected to examine actual reported maltreatment rates as a benchmark of program success. The reader should keep in mind, however, that for Healthy Start's high-risk families, rates of maltreatment may be higher than general state or community maltreatment rates both because of the families' higher risk status as well as because of the "surveillance" effects described above. This report presents the analyses of the effects of Oregon's Healthy Start program on child maltreatment for fiscal year 2007-08.

METHODOLOGY

Child Maltreatment Data

Through collaborative data-sharing agreements between the Oregon Commission on Children and Families (OCCF), NPC Research, the Oregon Department of Human Services, Center for Health Statistics (CHS), and the Oregon Department of Human Services, Children, Adults, and Families Division (CAF), data regarding substantiated reports of child abuse and neglect for Healthy Start children were obtained. NPC Research provides a dataset comprised of Healthy Start participant identification numbers to OCCF for matching with parent-level identifiers (parent and child birth date, race/ethnicity, county of birth, and child gender). This dataset is, in turn, provided to staff at the Center for Health Statistics, who add additional identifiers, and then submit the datafile to CAF staff, who match the Healthy Start sample with records of substantiated maltreatment reports. The dataset is then stripped of identifiers except for numeric Healthy Start ID numbers and returned to NPC Research for analysis.

Research Sample

HEALTHY START GROUP

The results presented in the next section of the report include data for Healthy Start children under the age of 3 during the current status report period (July 1, 2007, through June 30, 2008).[3] Maltreatment reports were included in the analysis if they occurred during this period. Analyses include all children served through Healthy Start's screening and referral process, as well as those served through Intensive Home Visiting.

[3] The analyses include children who were age 2 years by July 1, 2007, and who were **ever** served by Healthy Start; they may not have been served during FY 2007-08.

Because the outcome of interest for the gon Healthy Start program is *prevention* of child abuse and neglect, families who had open child welfare cases prior to being screened by Healthy Start were eliminated from these analyses. Additionally, families in which the Family Support Worker indicated that a Child Protective Services report had been made by the program at the time of family enrollment were also removed from these analyses. A total of 239 children (1% of the total sample) were removed for these reasons.

COMPARISON GROUP

The primary comparison group for this report is comprised of children up to 3 years of age who were *not served* by Healthy Start. Because Healthy Start screened only 40% to 49% of all eligible children during the FY 2005-07 biennium, children born during this period but not served by Healthy Start comprise a naturally existing, although not ideal, comparison group. Several differences between served and non-served families are important to note. First, the Healthy Start group includes primarily first-born children, while the general non-served population includes subsequent births. Parents of multiple children may be somewhat more likely to abuse or neglect their children (Berendes et al., 1998), although this finding has not been well studied.

Second, because of an increased emphasis on reaching and serving high-risk families, Healthy Start programs have focused their screening and outreach on higher risk populations. As described in the Healthy Start Annual Status Report (Green et al., 2009), families screened and served by Healthy Start are significantly higher on multiple risk indicators than the Oregon general population. For example, Healthy Start parents are significantly more likely to be teenage, single, unemployed, and have less than a high school education.

Finally, using this general population comparison group does not allow an analysis of the effects of Intensive Home Visiting services specifically. Because Healthy Start Intensive Services are offered only to those families at highest risk of maltreatment and other negative outcomes, the Intensive Service group is much higher in risk factors compared with the general population. However, in the general population, where there is likely to be combination of both higher and lower risk families, it is not possible to identify the high-risk families who are most similar to those served by Healthy Start. For this reason, it is most appropriate to use the entire Healthy Start population (both families who received Intensive Services and those who received only screening, information, and service referrals) as the point of reference for comparison.

RESULTS

Healthy Start vs. Non-Healthy Start Children

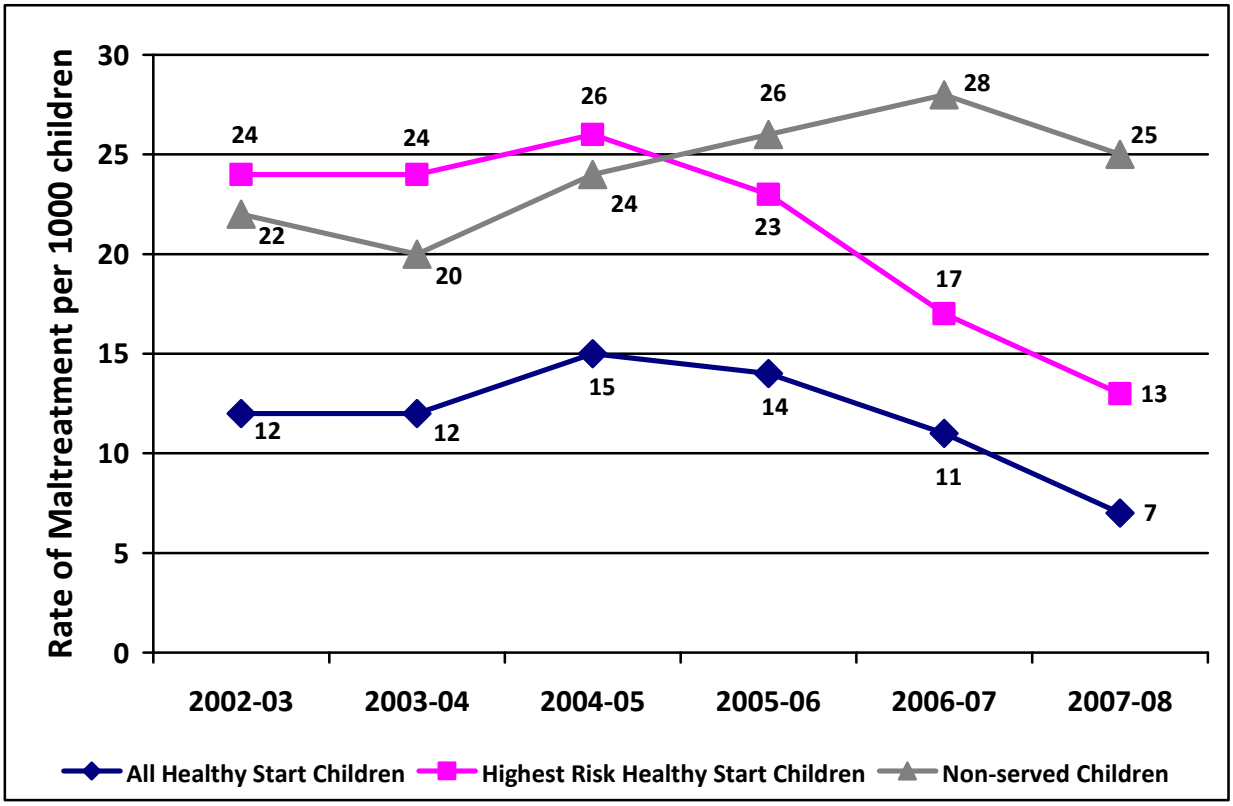
The first set of analyses compares all families served by Healthy Start (both screening- and referral-only and Intensive Service families) to all Oregon children up to 3 years of age who were not served by Healthy Start. As described previously, Healthy Start is not able to reach all families with newborns within each county. Hence, non-served families provide a naturally existing comparison group for examining the incidence of child abuse.

As shown in Figure 1, children served by Healthy Start had lower victimization rates compared with similar-age non-served children (7 per 1,000 compared with 25 per 1,000; county-level data are shown in Table 1 in Appendix A). The abuse rate for the Healthy Start group is the lowest yet documented by the evaluation, with **children served by Healthy Start two and a half times less likely to be victims of maltreatment**. Lower rates of maltreatment among the Healthy Start group in the past several years may be due, at least in part, to stronger adherence to the HFA program model associated with the accreditation process.

"Children in Healthy Start are 2½ times less likely to be maltreated than children not served by the program."

A comparison of child abuse statistics for the past eight years shows that the vast majority of Healthy Start children between 0 and 3 years of age do not have substantiated reports of child maltreatment. The percentage of Healthy Start children free from ment has been relatively stable (this year's reduction notwithstanding) ranging from 12 to 15 victims per 1,000 children. This year's drop in victimization rates among Healthy Start children follows the pattern of lower maltreatment rates seen in the general population, although the Healthy Start group showed a more dramatic reduction. The higher the program's capacity for serving the highest risk families with Intensive Home Visiting Services, the greater the potential for the program to make an identifiable impact on statewide rates of maltreatment. In 2007-08, Healthy Start served more Intensive Service families than in any prior year.

Figure 1. Rate of Maltreatment for Healthy Start vs. Non-Healthy Start Children



Intensive Service Families

As expected, and consistent with prior years, rates of maltreatment for Healthy Start Intensive Service families were higher (13 per 1,000) than those for families who were served only with screening, information, and referral services (7 per 1,000, see Table 2 in Appendix A). However, as shown in Figure 1, the maltreatment rate for Healthy Start Intensive Services families, who are by definition at high risk for maltreatment, is considerably ***lower*** than the rate for the general population of non-served Healthy Start families (13 per 1,000 vs. 25 per 1,000). This is striking, given the preponderance of risk factors that characterize Healthy Start Intensive Service families. These families, on average, had about three risk factors; families served with only screening, information, and referrals had just over one risk factor, on average. As shown in Figure 2, family risk status is strongly associated with increased incidence of maltreatment.

Moreover, it is notable that the rate of maltreatment among Healthy Start's highest risk Intensive Service families has decreased steadily over the past several years, and has decreased more than the rate of maltreatment among those receiving only screening/referral services. **These reductions in maltreatment among Intensive Service families mirror the timing of the program's accreditation by HFA and concurrent improvements in program quality.**

Maltreatment and Risk Factors

Child maltreatment rates are strongly related to families' level of risk as assessed by the New Baby Questionnaire (NBQ). As shown in Figure 2, and in Table 3 in Appendix A, the more risks families have, the more vulnerable their children are to abuse and/or neglect. Risk characteristics include such factors as being single at the child's birth, being 17 years or younger, experiencing poverty, having a spouse/partner who is unemployed, not receiving early comprehensive prenatal care, having unstable housing, experiencing marital or family conflict, having a history of substance abuse or mental health problems, and having less than a high school education.

Regardless of which specific risk factors are present, Healthy Start data have consistently found that as the number of risk factors increase, the likelihood of maltreatment increases. As can be seen in Figure 2, and Table 3 in Appendix A, the odds of abuse occurring increase dramatically as the number of risk factors increase. For example, families with just one risk factor were six times more likely to be maltreated, compared to those with no risk factors; those with two risk factors were 10 times more likely to have a founded maltreatment report, and families with six risk factors are more than 30 times more likely to have a founded report. This is consistent with the research literature that suggests that the more risk factors one has, the more likely it is that abuse will occur (Appleyard et al., 2005).

"Since beginning work on HFA accreditation in 2006, rates of maltreatment among Healthy Start families have fallen steadily."

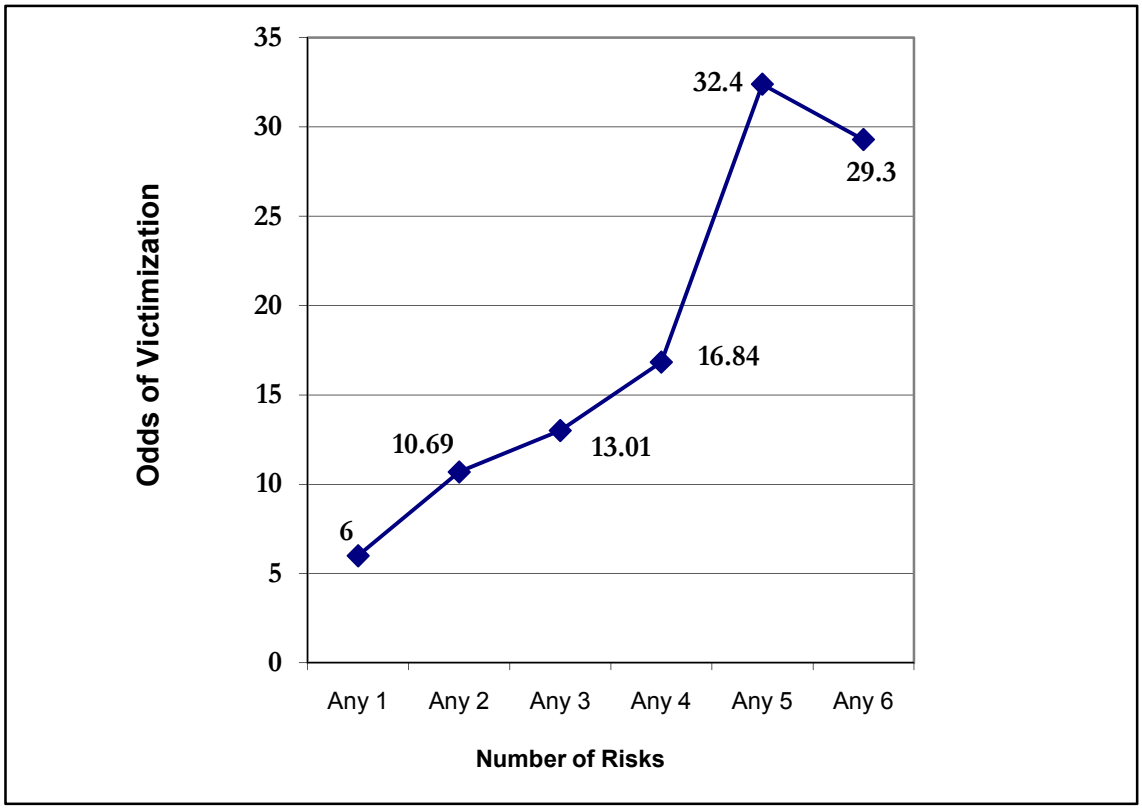
Analyses also showed that, controlling for other risk factors, some risk factors appear to increase the likelihood of abuse even further. Specifically, controlling for all other risk factors, families headed by a single parent and families in which the primary caregiver had less than a high school education/GED were more than twice as likely to have an abuse report as families without these risk factors. Additionally, there was a trend toward mothers reporting financial difficulties and those reporting depression to have increased odds of abuse ($p = .07$, $p = .08$, respectively).[4]

In addition to risk screening, families that are enrolled in Intensive Services are interviewed using an in-depth assessment tool focusing on family and parenting stress, called the Kempe Family Stress Interview (Korfmacher, 2000). Families whose Kempe assessments indicate that they are experiencing more family and parenting stress are more likely to engage in child maltreatment. Families assessed at low stress had a maltreatment rate of only 3 per 1000; families with moderate stress had a rate of 8 per 1000, and families with high stress had a rate of 20 per 1000. This year, in a finding that differs considerably from prior years, the rate of abuse in the highest risk categories was markedly lower (20 per 1000 for high-stress families, and 0 per 1000 — no abuse — for the highest stress families). See Table 4 in Appendix A.

This difference is likely due to the fact that Kempe Assessments were primarily conducted on families who had already been enrolled in the Intensive Service component this year. (In prior years, many of the Kempe Assessments were completed on families who were not enrolled in Intensive Services).

[4] Regression models predicting abuse status included all NBQ risk factors simultaneously (models also controlled for race and county of service); odds ratios for single parent, mother with less than a high school education or GED, were significant, $p < .01$.

Figure 2. Likelihood of Maltreatment by Number of Risks on the New Baby Questionnaire



Types of Maltreatment

Contrary to popular belief, the vast majority of reports of maltreatment do not involve physical or sexual abuse. In Oregon, during federal FY 2007-08, only 15.8% of reports involved physical or sexual abuse; more common were neglect (34% of founded reports) or "threat of harm" (48.7% of founded reports). A determination of "threat of harm" indicates that there is a substantial danger to the child, often because of witnessing domestic violence or being at substantial threat of harm due to parents' drug or alcohol issues. Threat of harm is the single most frequent type of maltreatment recorded in Oregon.

Among Healthy Start families, 8.4% of founded reports involved physical or sexual abuse, 32.8% involved child neglect, and 68.9% involved reported threat of harm.[5]

[5] Note that more than one type of abuse may be reported for each victim.

SUMMARY & DISCUSSION

Results for the 2007-08 fiscal year showed the largest difference in maltreatment rates between Healthy Start families and the Oregon general population ever documented by the evaluation. Importantly, this difference was concentrated among the higher risk Intensive Service families, who had an overall maltreatment rate of only 13 per 1000, compared with 25 per 1000 in the Oregon general population of 0- to 3-year-olds.

Ideally, it would be possible to compare the rates of child maltreatment for the higher risk families receiving Intensive Services to a similarly high-risk group of families who did not receive Intensive Services. At this time, such a comparison is not possible, given current evaluation structure and program resources. It is possible, however, to compare the maltreatment rates for Oregon's Intensive Service families to the rates found in other studies of high-risk populations. Generally, these comparisons suggest that Oregon's Healthy Start Intensive Service families have lower rates of abuse and neglect than these comparable populations. For example, a randomized trial of the Nurse-Family Partnership program (NFP) found that 96% of higher risk teenage mothers who were visited by a nurse for two years were free of maltreatment, compared with only 79% of impoverished, unmarried teens who received no home visiting (Olds, 1997). Among Healthy Start Intensive Service teenage parents, the percentage free from maltreatment (96.9%) is comparable to what was found for the NFP program's treatment group. It should be noted, however, that reported maltreatment rates vary across communities due to differences in such factors as child welfare reporting/investigation systems and community demographics, and thus these comparisons should be made with caution.

Most striking, perhaps, are the results in this year's report that show the maltreatment rates for Healthy Start higher risk, Intensive Service families dropping below the rate of maltreatment for the general 0-3 population for the third year in a row. Given the high-risk status of the Intensive Service group, this finding provides the strongest support to date for the efficacy of Healthy Start services in preventing maltreatment on those most at risk.

The lower maltreatment rates for Intensive Service families evidenced in the past three years coincides with the work begun in 2005-06 to make Oregon's Healthy Start an accredited HFA program. **Differences in maltreatment rates between Healthy Start children and non-served children during these three years were larger than in the years prior to implementation of the HFA model.** Specifically, participating in the Healthy Start program was associated with the following differences in maltreatment rate between children served by Healthy Start and Oregon's general 0-3 population:

- FY 2002-03: 45% difference in founded abuse reports
- FY 2003-04: 40% difference in founded abuse reports

- FY 2004-05: 38% difference in founded abuse reports
- FY 2005-06: 46% difference in founded abuse reports
- FY 2006-07: 61% difference in founded abuse reports
- FY 2007-08: 72% difference in founded abuse reports

In addition to HFA accreditation, FY 2007-08 brought a return to prior years' funding levels along with strong, ongoing technical assistance and training to ensure continued adherence to the HFA model. Quality assurance efforts have included regular program site visits, continued feedback and discussion of evaluation results to ensure that programs are meeting measurable standards of quality, and sustained in-person and other forms of one-on-one technical assistance provided by the OCCF central administration staff. These quality assurance efforts appear to have paid off in terms of increased success in reducing maltreatment among high-risk families.

These impressive results speak to the importance of ongoing program quality assurance work, feedback and utilization of evaluation information, and sustained funding for quality programs.

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APPENDIX A: HEALTHY START OF OREGON 2007-2008 MALTREATMENT REPORT DATA TABLES

Table 1. Children Under Age 3 Free from Maltreatment (FY 2007-08) for Healthy Start and Non-Healthy Start

	Healthy Start Children[1]				Non-Healthy Start Children[2]			
Site	Child abuse victims in FY 07-08[3]	Total Healthy Start children, age 0-3 yrs	% Free from maltreatment[4]	Incidence rate per 1,000	Child abuse victims in FY 07-08[3]	Number children, 0-3 yrs not served by Healthy Start	% Free from maltreatment[4]	Incidence rate per 1,000
Benton	0	396	100%	0	22	1,939	99%	11
Clackamas	8	1314	99%	6	68	10,613	99%	6
Clatsop	^	^	^	^	25	1,205	98%	21
Columbia	0	112	100%	0	26	1,401	98%	19
Coos	^	^	^	^	93	1,870	95%	50
Crook	^	^	^	^	12	586	98%	20
Curry	0	85	100%	0	^	^	^	^
Deschutes	^	^	^	^	99	5,290	98%	19
Douglas	6	540	99%	11	83	2,915	97%	28
Gilliam	0	2	100%	0	^	^	^	^
Grant	0	18	100%	0	15	155	90%	97
Harney	0	20	100%	0	11	218	95%	50
Hood River	^	^	^	^	8	829	99%	10
Jackson	9	726	99%	12	223	6,299	96%	35
Jefferson	0	95	100%	0	14	929	98%	15
Josephine	^	^	^	^	72	2,285	97%	32
Klamath	^	^	^	^	129	2,062	94%	63
Lane	10	1046	99%	10	293	10,074	97%	29

[1] **Total Healthy Start** children include screened/referred families (no home visiting) and Intensive Service families.

[2] **Non-Healthy Start Children** are the total number of children born in each county from 2005 to 2007 according to the Oregon Health Department (OHD) birth statistics (found at http://www.dhs.state.or.us/dhs/ph/chs/data/birth/birthdata.shtml) *minus* the number of children screened/served by Healthy Start. Similarly, child abuse victims among non-Healthy Start children are the total number of child maltreatment victims, age 0 – 3 years, for each county *minus* the number of Healthy Start victims.

[3] The Oregon Department of Human Services, Children, Adults, and Families Division (CAF) electronically checked records of 16,668 Healthy Start children born between July 1, 2005, and June 30, 2007, for confirmed incidents of child maltreatment during FY 2007-08. These results exclude 239 reports that occurred prior to the family's involvement with Healthy Start, and/or because the Family Support Worker indicated on the Family Intake Form that a Child Protective Services report had been made by the program at the time of enrollment.

[4] Percentages are affected by sample size and can be misleading when sample sizes are small.

^ Due to DHS restrictions on reporting data about small samples, these data are unavailable for this report.

Site	Healthy Start Children[1]				Non-Healthy Start Children[2]			
	Child abuse victims in FY 07-08[3]	Total Healthy Start children, age 0-3 yrs	% Free from maltreatment[4]	Incidence rate per 1,000	Child abuse victims in FY 07-08[3]	Number children, 0-3 yrs not served by Healthy Start	% Free from maltreatment[4]	Incidence rate per 1,000
Lincoln	^	^	^	^	29	1,131	97%	26
Linn	6	523	99%	11	199	4,008	95%	50
Malheur	0	56	100%	0	53	1,335	96%	40
Marion	22	1816	99%	12	505	13,177	96%	38
Morrow	^	^	^	^	16	393	96%	41
Multnomah	34	5270	99%	6	588	25,393	98%	23
Polk	^	^	^	^	86	2,154	96%	40
Sherman	0	10	100%	0	^	^	^	^
Tillamook	0	41	100%	0	19	792	98%	24
Umatilla	^	^	^	^	83	3,039	97%	27
Union	0	159	100%	0	27	817	97%	33
Wallowa	0	15	100%	0	^	^	^	^
Wasco	0	109	100%	0	26	761	97%	34
Washington	^	^	^	^	288	21,870	99%	13
Wheeler	0	2	100%	0	^	^	^	^
Yamhill	0	220	100%	0	56	3,691	98%	15
Total	**119**	**16,668**	**99%**	**7**	**3,192**	**127,873**	**98%**	**25**

[1] **Total Healthy Start** children include screened/referred families (no home visiting) and Intensive Service families.

[2] **Non-Healthy Start Children** are the total number of children born in each county from 2005 to 2007 according to the Oregon Health Department (OHD) birth statistics (found at http://www.dhs.state.or.us/dhs/ph/chs/data/birth/birthdata.shtml) *minus* the number of children screened/served by Healthy Start. Similarly, child abuse victims among non-Healthy Start children are the total number of child maltreatment victims, age 0 – 3 years, for each county *minus* the number of Healthy Start victims.

[3] The Oregon Department of Human Services, Children, Adults, and Families Division (CAF) electronically checked records of 16,668 Healthy Start children born between July 1, 2005, and June 30, 2007, for confirmed incidents of child maltreatment during FY 2007-08. These results exclude 239 reports that occurred prior to the family's involvement with Healthy Start, and/or because the Family Support Worker indicated on the Family Intake Form that a Child Protective Services report had been made by the program at the time of enrollment.

[4] Percentages are affected by sample size and can be misleading when sample sizes are small.

^ Due to DHS restrictions on reporting data about small samples, these data are unavailable for this report.

Table 2. Children Under Age 3 Free from Maltreatment by Service Type (FY 2007-08)

	Children in Healthy Start Screened/Referred Families[5]				Children in Healthy Start Intensive Service Families[6]			
Site	**Child abuse victims in FY 07-08[7]**	**Screened/ Referred Children 0-3**	**% free from maltreatment[8]**	**Incidence rate per 1,000**	**Child abuse victims in FY 07-08[7]**	**Intensive Service Children, 0-3 yrs**	**% free from maltreatment[8]**	**Incidence rate per 1,000**
Benton	0	354	100%	0	0	42	100%	0
Clackamas	^	^	^	^	^	^	^	^
Clatsop	^	^	^	^	0	23	100%	0
Columbia	0	83	100%	0	0	29	100%	0
Coos	0	57	100%	0	^	^	^	^
Crook	^	^	^	^	0	28	100%	0
Curry	0	57	100%	0	0	28	100%	0
Deschutes	0	597	100%	0	^	^	^	^
Douglas	6	455	99%	13	0	85	100%	0
Gilliam	0	1	100%	0	0	1	100%	0
Grant	0	13	100%	0	0	5	100%	0
Harney	0	8	100%	0	0	12	100%	0
Hood River	^	^	^	^	^	^	^	^
Jackson	7	557	99%	13	^	^	^	^
Jefferson	0	49	100%	0	0	46	100%	0
Josephine	^	^	^	^	0	82	100%	0
Klamath	^	^	^	^	^	^	^	^

[5] **Screened/Referred Families** are those families who were screened by Healthy Start and received basic information and referral services, but did not receive Intensive Home Visiting services. These families may or may not have been eligible to receive Intensive Services.

[6] **Intensive Service Families** include all families ever served in Intensive Services during FY 2005-2007; these families may not have been enrolled during 2007-08.

[7] The Oregon Department of Human Services, Children, Adults, and Families Division (CAF) electronically checked records of 16,668 Healthy Start children born between July 1, 2005, and June 30, 2007, for confirmed incidents of child maltreatment during FY 2007-08. These results exclude 239 reports that occurred prior to the family's involvement with Healthy Start, and/or because the Family Support Worker indicated on the Family Intake Form that a Child Protective Services report had been made by the program at the time of enrollment.

[8] Percentages are affected by sample size and can be misleading when sample sizes are small.

^ Due to DHS restrictions on reporting data about small samples, these data are unavailable for this report.

Site	Children in Healthy Start Screened/Referred Families[5]				Children in Healthy Start Intensive Service Families[6]			
	Child abuse victims in FY 07-08[7]	Screened/ Referred Children 0-3	% free from maltreatment[8]	Incidence rate per 1,000	Child abuse victims in FY 07-08[7]	Intensive Service Children, 0-3 yrs	% free from maltreatment[8]	Incidence rate per 1,000
Lane	7	882	99%	8	^	^	^	^
Lincoln	^	^	^	^	^	^	^	^
Linn	^	^	^	^	^	^	^	^
Malheur	0	19	100%	0	0	37	100%	0
Marion	20	1627	99%	12	^	^	^	^
Morrow	0	43	100%	0	^	^	^	^
Multnomah	30	4967	99%	6	^	^	^	^
Polk	^	^	^	^	0	53	100%	0
Sherman	0	9	100%	0	0	1	100%	0
Tillamook	0	22	100%	0	0	19	100%	0
Umatilla	0	119	100%	0	^	^	^	^
Union	0	138	100%	0	0	21	100%	0
Wallowa	0	13	100%	0	0	2	100%	0
Wasco	0	91	100%	0	0	18	100%	0
Washington	^	^	^	^	0	327	100%	0
Wheeler	0	1	100%	0	0	1	100%	0
Yamhill	0	186	100%	0	0	34	100%	0
Total	**91**	**14,495**	**99%**	**6**	**28**	**2,173**	**99%**	**13**

[5] **Screened/Referred Families** are those families who were screened by Healthy Start and received basic information and referral services, but did not receive Intensive Home Visiting services. These families may or may not have been eligible to receive Intensive Services.

[6] **Intensive Service Families** include all families ever served in Intensive Services during FY 2005-2007; these families may not have been enrolled during 2007-08.

[7] The Oregon Department of Human Services, Children, Adults, and Families Division (CAF) electronically checked records of 16,668 Healthy Start children born between July 1, 2005, and June 30, 2007, for confirmed incidents of child maltreatment during FY 2007-08. These results exclude 239 reports that occurred prior to the family's involvement with Healthy Start, and/or because the Family Support Worker indicated on the Family Intake Form that a Child Protective Services report had been made by the program at the time of enrollment.

[8] Percentages are affected by sample size and can be misleading when sample sizes are small.

^ Due to DHS restrictions on reporting data about small samples, these data are unavailable for this report.

Table 3. Likelihood of Child Maltreatment[9] Based on Number of Risks[10] (FY 2007-08)

	Parameter Estimate	Odds of Child Victimization[11]
Any one risk vs. none (Sample = 2,892)[12]	1.79	6.00*
Any two risks vs. none (Sample = 2,847)	2.37	10.69**
Any three risks vs. none (Sample = 2,455)	2.57	13.01**
Any four risks vs. none (Sample = 1,729)	2.82	16.84**
Any five risks vs. none (Sample = 999)	3.48	32.40**
Any six risks vs. none (Sample = 451)	3.38	29.30**

* $p < .01$; ** $p < .001$

[9] A logistic regression model was used to model the effects of the total number of risk characteristics shown by each family on the likelihood of child maltreatment for children age 0 to 3 years during FY 2007-08, for which there was child victimization information.

[10] The numbers of risk factors were recorded on the New Baby Questionnaire.

[11] Odds ratios show the likelihood of child maltreatment occurrence for families with risk characteristics in comparison to families with no risk characteristics. For example, among families screened by Oregon Healthy Start, children whose families have three risks at the time of birth are 13.01 times more likely to have been confirmed victims of child maltreatment than children whose families had no risks.

[12] Sample sizes reflect the number of families within the targeted risk grouping (e.g., 2,892 families had only one risk factor). 4,320 families had no risk factors.

Table 4. Child Maltreatment Victims by Stress Level[13]

	2004-05			2005-06			2006-07			2007-08		
	Number (Percent)	**Free From Abuse**	**Victims**	**Number (Percent)**	**Free From Abuse**	**Victims**	**Number (Percent)**	**Free From Abuse**	**Victims**	**Number (Percent)**	**Free From Abuse**	**Victims**
Kempe Assessment[14]												
Assessed at low stress	830 (18%)	99.4%	6/1,000	620 (16.5%)	99.2%	8/1,000	767 (19.1%)	99.7%	3/1,000	687 (23.1%)	99.7%	3/1,000
Assessed at moderate stress	2,046 (45%)	98.3%	17/1,000	1,766 (47.1%)	98.2%	18/1,000	1846 (46%)	99.3%	7/1,000	1,292 (43.4%)	99.2%	8/1,000
Assessed at high stress	1,508 (33%)	95.7%	43/1,000	1,270 (33.9%)	96.6%	34/1,000	1309 (32.6%)	96.7%	33/1,000	931 (31.3%)	98.0%	20/1,000
Assessed at severe stress	125 (3%)	91.2%	88/1,000	94 (2.5%)	92.6%	74/1,000	90 (2.2%)	96.7%	49/1,000	64 (2.2%)	100%	0/1,000
Total higher risk families interviewed	4,509	97.4%	26/1,000	3,750	97.7%	23/1,000	4,012	98.5%	15/1,000	2,974	99.0%	10/1,000

[13] Statistics describe confirmed reports of child maltreatment for Healthy Start children age 0 to 3 years where families have both screening and assessment information. First, families are screened using the New Baby Questionnaire. Families with positive screens who accept intensive service are interviewed by trained assessment workers using the Kempe Family Stress Assessment.

[14] Kempe Family Stress Assessments are rated on a scale of 0 - 100. Low family stress is rated as 0 - 20, moderate family stress as 25 - 35, high family stress as 40 - 60, and severe family stress as 65 or higher.