Healthy Start of Oregon, Annual Report on Maltreatment Prevention 2006-07

Submitted to:

Mickey Lansing, Executive Director
Oregon Commission on Children and Families
530 Center St. NE, Suite 405
Salem, OR 97301

Submitted by:

Beth L. Green, Ph.D.
Callie H. Lambarth, M.S.W.
Jerod M. Tarte, M.A.
Ashley M. Snoddy

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NPC RESEARCH
4380 SW Macadam Ave., Suite 530
Portland, OR 97239
(503) 243-2436
www.npcresearch.com

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Beth L. Green, Ph.D.

Callie H. Lambarth, M.S.W.

Jerod M. Tarte, M.A.

Ashley M. Snoddy

NPC Research
healthystart@npcresearch.com

For questions about this report or project, please contact Beth Green at (503) 243-2436 x107, green@npcresearch.com

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Informing policy, improving programs

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HEALTHY START OF OREGON, ANNUAL REPORT ON MALTREATMENT PREVENTION 2006-07

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

In Oregon, there were 11,255 reported victims of child abuse or neglect in 2005-06; in 2006-07 there were 12,043 total victims, an increase of 7% overall. This finding reflects a trend over the past 5 years of increasing numbers of maltreatment reports and victims in Oregon. The increase in child maltreatment has been attributed to two primary factors:

1. The dramatic increase in methamphetamine abuse among Oregon families;
2. The reduction in funding for DHS child welfare, and other, services during the 2004-06 biennium.

Substance abuse in general, and methamphetamine in particular, is a critical issue for child protection. In 2006, 42% of founded abuse reports involved suspected drug and/or alcohol abuse by the parents. Similarly, 61% of Oregon children in foster care had a parent with drug/alcohol abuse issues. Of the 1,450 children in foster care on a given day in Multnomah County, half come from homes with methamphetamine-addicted parents (Whelan & Boggess, 2005).

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 generally 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. In California, for example, 71% of counties have reported an increase in out of home placements due to methamphetamine use (Generations United, 2006).

In Oregon, 49% of all substantiated victims of abuse or neglect were under age 6, and 29% (3,522 victims) were under age 3. Infants (children under 1 year of age) represent 14% of the overall victims, by far the largest single age group. Children ages 0 to 6 comprise 40% of the children served in foster care in Oregon. In addition, of the 17 child fatalities related to abuse and neglect in Oregon in 2006, 15 were younger than age 5.

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 teenaged children (English, 1998). The increases in community rates of substance

abuse and child maltreatment provide an important context for evaluating the Healthy Start program. At the same time that the challenge of reducing maltreatment appears to be increasing, however, 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; Olds et al., 1999). In their meta-analysis of over 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)[1]; 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 6 months of home visitation were free of substantiated reports of abuse or neglect. This figure contrasts with 92% for comparison group families during a similar time period (Norton, 1998). 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 to 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 implementation can influence the success of

[1] 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.

home-visiting programs to achieve desired outcomes.

Further, it is 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 seek to improve the ability of parents to support their children to succeed later in school have been shown to have positive (and cost-beneficial) long-term outcomes. (Shonkoff & Phillips, 2000). The Healthy Start Annual Status Report (Green et al., 2008) presents results for these other, broader outcomes for Healthy Start families.

Finally, it should be noted that there is troversy 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 at-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., 2008).

A further complication 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 to 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, & Wiersema, 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 2006-07.

METHODOLOGY

Child Maltreatment Data

Through a collaborative data-sharing agreement between the Oregon Commission on Children and Families (OCCF), NPC Research, and the Oregon Department of Human Services, Children, Adults, and Families Division (CAF), data regarding the incidence of 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 CAF, 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, 2006, through June 30, 2007).[1] 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.

Because the outcome of interest for the Oregon 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 259 children (2% of the total sample) were removed for these reasons.

COMPARISON GROUP

The primary comparison group for this report is children up to 3 years of age who were *not served* by Healthy Start. Because Healthy Start screened only about 40% of all eligible children during both FY 2004-05 and FY 2005-06, 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 reductions in funding for Healthy Start, programs have focused their screening and outreach on higher-risk populations, as evidenced by the higher preponderance of risk factors such as teenage parents, single parents, and unemployed parents

[1] The analyses include children 0 to 3 during FY 2006-07 who were ever served by Healthy Start; they may not have been served during FY 2006-07.

in the Healthy Start group as compared to the general population (Green et al., 2008). Thus, the Healthy Start group is relatively higher risk compared to non-served families.

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 to 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

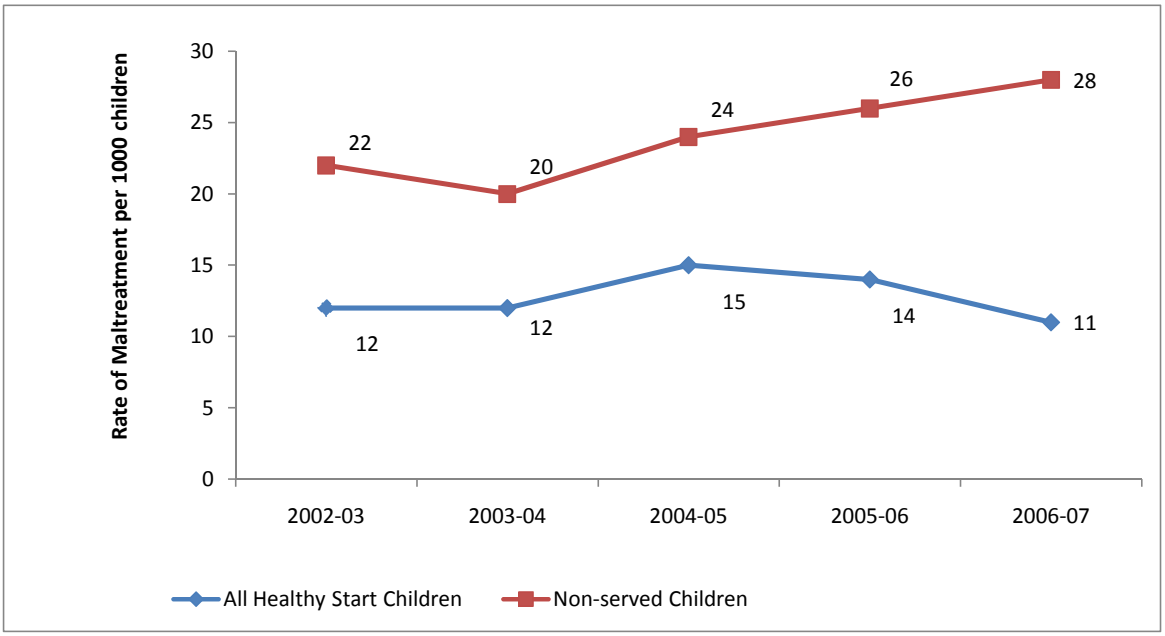
Healthy Start vs. Non-Healthy Start Children

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 to similar-aged non-served children (11 per 1,000 compared to 28 per 1,000; county-level data are shown in Table 1 in Appendix A). These rates are relatively similar to prior years' results, showing that children served by Healthy Start are half as likely as those not served 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.

A comparison of child abuse statistics for the past 8 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 maltreatment has not varied markedly over the past several years, ranging from 12/1,000 in FY 2002-03, to 11/1,000 in FY 2006-07; however, the rate of maltreatment in the non-served population appears to be increasing from 20/1,000 in 2003-04 to 28/1,000 in 2006-07.

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



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 teenaged mothers who were visited by a nurse for 2 years were free of maltreatment, compared to only 79% of impoverished, unmarried teens who received no home visiting (Olds, 1997). Among Healthy Start Intensive Service teenaged parents, the percentage free from maltreatment (96.9%) is comparable to what was found for the NFP program's treatment group. Further, in a randomized trial of Hawaii's Healthy Start program, 96.6% of the children in higher-risk families served by paraprofessional home visitors were free from maltreatment during the first year of life in contrast to only 93.2% of a control group who were not visited (Center on Child Abuse Prevention Research, 1996). 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.

Intensive Service Families

As expected, and consistent with prior years, rates of maltreatment for Healthy Start Intensive Service families were higher (17 per 1,000) than those for families who were served only with screening, information, and referral services (10 per 1,000, see Table 2 in Appendix A). However, it is important to note that 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 (17 per 1,000 vs. 28 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.

Additionally, it should be noted that Healthy Start FSWs made reports to DHS on 24 families during FY 2006-07. It is not possible to know which, if any, of these resulted in founded DHS maltreatment incidents.

Maltreatment and Risk Factors

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

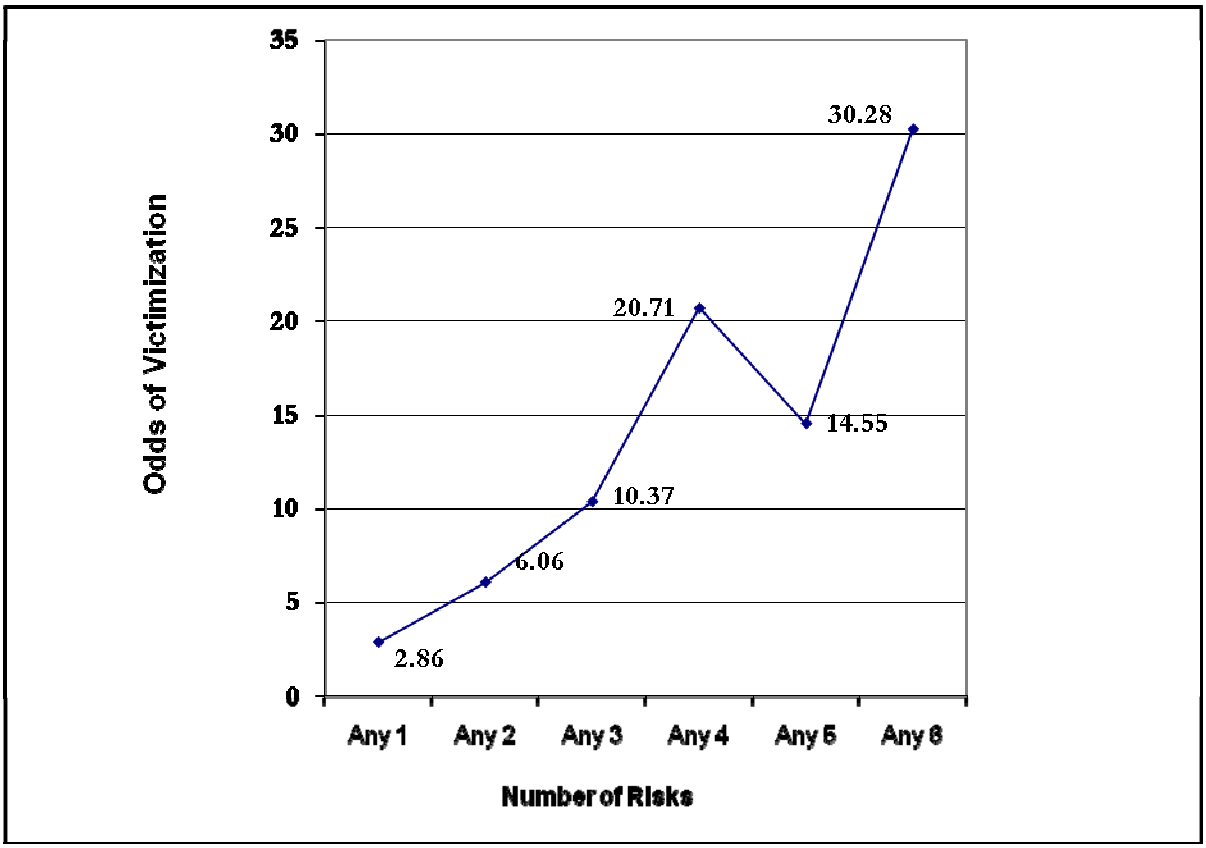
ceiving early comprehensive prenatal care, having unstable housing, experiencing marital or family conflict, having a history of substance abuse or mental health problems, and having less than a high school education.

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 two risk factors are about 6 times more likely to have a founded maltreatment report, compared to families with no risk factors, while families with six risk factors are almost 30 times more likely to have a founded report.

Further, analyses showed that, controlling for other risk factors, some risk factors appear to increase the likelihood of abuse even further. Specifically, families headed by a single parent, families with both parents unemployed, and families with a drug or alcohol problem were more than twice as likely to have an abuse report as families without these risk factors. Regression model predicting abuse status and including all NBQ risk factors simultaneously; odds ratios for single parent, unemployed parents, and drug abuse were all significant, $p < .01$.

Results also show that scores on the Kempe Assessment are strongly linked to rates of maltreatment. The rate of child abuse and neglect is 7 per 1,000 for children whose families score in the "moderate" stress range. This rate climbs to 33 per 1,000 children for families with high stress levels, and to 49 per 1,000 for those with severe stress (see Table 4 in Appendix A).

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 FY 2006-07, only 14.7% of all victims experienced physical or sexual abuse; more common were neglect (33% of victims) or "threat of harm" (50.2% of victims). 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, 11.3% of victims had reported physical or sexual abuse, 43% had reported neglect, and 67% had reported threat of harm.

SUMMARY & DISCUSSION

Overall, the findings from our analyses of the FY 2006-07 child maltreatment data indicate that children served by Healthy Start had a lower victimization rate than non-served children. The rate of children free from maltreatment who were involved in Healthy Start Intensive Services (17/1,000) compares favorably to other studies of home visitation programs for at-risk families. A surveillance effect was evident, demonstrating that some reports of maltreatment were actually made by the Healthy Start workers, due to their frequent contact with and observation of the higher-risk families with whom they work. Consistent with prior years, and with research linking risk factors to maltreatment rates, families with more risk factors and higher scores on the Kempe Assessment were more likely to have had a report of maltreatment.

The 2006-07 fiscal year was a time of reduced funding for Healthy Start, so the overall positive results in terms of continuing reductions in the rates of child maltreatment are striking. While the rates of maltreatment have generally increased in Oregon, the maltreatment rates among Healthy Start families has declined. This has continued despite the across the board budget cuts for all Healthy Start programs.

Further, other important services for Oregon's at-risk families struggled under limited budgets during FY 2006-07. Reductions to services such as health insurance, mental health, and, perhaps most importantly, substance abuse treatment, limited the ability of Healthy Start providers to successfully link families to needed services. Given this statewide context, it is especially encouraging that Oregon's Healthy Start program continues to be associated with supporting positive family outcomes and reducing the incidence of child maltreatment.

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APPENDIX A: HEALTHY START OF OREGON 2006-2007 MALTREATMENT REPORT DATA TABLES

Table 1. Children Under Age 3 Free from Maltreatment (FY 2006-07) for Healthy Start and Non-Healthy Start

	Healthy Start Children[1]				Non-Healthy Start Children[2]			
Site	**Child abuse victims in FY 06-07[3]**	**Total Healthy Start children, aged 0-3 yrs**	**% Free from maltreatment[4]**	**Incidence rate per 1,000**	**Child abuse victims in FY 06-07[3]**	**Number children, 0-3 yrs not served by Healthy Start**	**% Free from maltreatment[4]**	**Incidence rate per 1,000**
Benton	0	461	100.0%	0	34	1,872	98.2%	18
Clackamas	7	1,115	99.4%	6	109	10,677	99.0%	10
Clatsop	^	^	^	^	37	1,186	96.9%	31
Columbia	^	^	^	^	34	1,322	97.4%	26
Coos	0	40	100.0%	0	84	1,862	95.5%	45
Crook	^	^	^	^	20	548	96.4%	36
Curry	0	103	100.0%	0	13	312	95.8%	42
Deschutes	^	^	^	^	91	4,737	98.1%	19
Douglas	7	505	98.6%	14	85	2,855	97.0%	30
Gilliam	0	5	100.0%	0	^	^	^	^
Grant	^	^	^	^	10	164	93.9%	61
Harney	0	23	100.0%	0	8	201	96.0%	40
Hood River	0	64	100.0%	0	17	829	97.9%	21
Jackson	16	561	97.1%	29	288	6,024	95.2%	48
Jefferson	^	^	^	^	16	901	98.2%	18
Josephine	^	^	^	^	74	2,157	96.6%	34

[1] **Total Healthy Start** children include screened/referred families (no home visiting) and Intensive Service families. These results exclude 109 additional cases because of missing Healthy Start county of service.

[2] **Non-Healthy Start Children** are the total number of children born in each county from 2004 to 2006 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, aged 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 13,853 Healthy Start children born between July 1, 2004, and June 30, 2006, for confirmed incidents of child maltreatment during FY 2006-07. These results exclude 259 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 06-07[3]	Total Healthy Start children, aged 0-3 yrs	% Free from maltreatment[4]	Incidence rate per 1,000	Child abuse victims in FY 06-07[3]	Number children, 0-3 yrs not served by Healthy Start	% Free from maltreatment[4]	Incidence rate per 1,000
Klamath	^	^	^	^	122	2,112	94.2%	58
Lane	11	717	98.5%	15	331	9,946	96.7%	33
Lincoln	7	260	97.3%	27	41	1,107	96.3%	37
Linn	10	458	97.8%	22	198	3,856	94.9%	51
Malheur	0	48	100.0%	0	65	1,273	94.9%	51
Marion	15	1,609	99.1%	9	519	12,649	95.9%	41
Morrow	^	^	^	^	29	406	92.9%	71
Multnomah	46	3,884	98.8%	12	608	25,081	97.6%	24
Polk	^	^	^	^	109	2,177	95.0%	50
Sherman	^	^	^	^	0	37	100.0%	0
Tillamook	0	55	100.0%	0	14	774	98.2%	18
Umatilla	^	^	^	^	102	2,747	96.3%	37
Union	^	^	^	^	34	766	95.6%	44
Wallowa	0	24	100.0%	0	10	159	93.7%	63
Wasco	0	101	100.0%	0	39	625	93.8%	62
Washington	^	^	^	^	321	21,625	98.5%	15
Yamhill	0	230	100.0%	0	73	3,332	97.8%	22
Total	**151**	**13,853**	**98.9%**	**11**	**3,540**	**124,363**	**97.2%**	**28**

[1] **Total Healthy Start** children include screened/referred families (no home visiting) and Intensive Service families. These results exclude 109 additional cases because of missing Healthy Start county of service.

[2] **Non-Healthy Start Children** are the total number of children born in each county from 2004 to 2006 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, aged 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 13,853 Healthy Start children born between July 1, 2004, and June 30, 2006, for confirmed incidents of child maltreatment during FY 2006-07. These results exclude 259 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 Aged Under Age 3 Free from Maltreatment by Service Type (FY 2006-07)

	Children in Healthy Start Screened/Referred Families[5]				Children in Healthy Start Intensive Service Families[6]			
Site	**Child abuse victims in FY 06-07[7]**	**Basic service children, 0-3 years**	**% free from maltreatment[8]**	**Incidence rate per 1,000**	**Child abuse victims in FY 06-07[7]**	**Intensive Service Children, 0-3 yrs**	**% free from maltreatment[8]**	**Incidence rate per 1,000**
Benton	0	423	100.0%	0	0	38	100.0%	0
Clackamas	7	970	99.3%	7	0	145	100.0%	0
Clatsop	^	^	^	^	0	23	100.0%	0
Columbia	^	^	^	^	^	^	^	^
Coos	0	26	100.0%	0	0	14	100.0%	0
Crook	^	^	^	^	0	24	100.0%	0
Curry	0	81	100.0%	0	0	22	100.0%	0
Deschutes	0	578	100.0%	0	^	^	^	^
Douglas	^	^	^	^	^	^	^	^
Gilliam	0	2	100.0%	0	0	3	100.0%	0
Grant	0	5	100.0%	0	^	^	^	^
Harney	0	10	100.0%	0	0	13	100.0%	0
Hood River	0	54	100.0%	0	0	10	100.0%	0
Jackson	10	429	97.7%	23	6	132	95.5%	45
Jefferson	0	24	100.0%	0	^	^	^	^
Josephine	^	^	^	^	^	^	^	^

[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 2004-2006; these families may not have been enrolled during 2006-07.

[7] The Oregon Department of Human Services, Children, Adults, and Families Division (CAF) electronically checked records of 13,853 Healthy Start children born between July 1, 2004, and June 30, 2006, for confirmed incidents of child maltreatment during FY 2006-07. These results exclude 259 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.

Site	Children in Healthy Start Screened/Referred Families[5]				Children in Healthy Start Intensive Service Families[6]			
	Child abuse victims in FY 06-07[7]	Basic service children, 0-3 years	% free from maltreatment[8]	Incidence rate per 1,000	Child abuse victims in FY 06-07[7]	Intensive Service Children, 0-3 yrs	% free from maltreatment[8]	Incidence rate per 1,000
Klamath	0	240	100.0%	0	^	^	^	^
Lane	7	552	98.7%	13	^	^	^	^
Lincoln	6	209	97.1%	29	^	^	^	^
Linn	9	424	97.9%	21	^	^	^	^
Malheur	0	10	100.0%	0	0	38	100.0%	0
Marion	14	1,353	99.0%	10	^	^	^	^
Morrow	^	^	^	^	0	15	100.0%	0
Multnomah	40	3,536	98.9%	11	6	348	98.3%	17
Polk	^	^	^	^	0	47	100.0%	0
Sherman	^	^	^	^	0	3	100.0%	0
Tillamook	0	28	100.0%	0	0	27	100.0%	0
Umatilla	0	146	100.0%	0	^	^	^	^
Union	^	^	^	^	0	20	100.0%	0
Wallowa	0	19	100.0%	0	0	5	100.0%	0
Wasco	0	72	100.0%	0	0	29	100.0%	0
Washington	^	^	^	^	^	^	^	^
Yamhill	0	201	100.0%	0	0	29	100.0%	0
Total	**112**	**11,591**	**99.0%**	**10**	**39**	**2,262**	**98.3%**	**17**

[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 2004-2006; these families may not have been enrolled during 2006-07.

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

Table 3. Likelihood of Child Maltreatment[9] Based on Number of Risks[10] (FY 2006-07)

	Parameter Estimate	Odds of Child Victimization[11]
Any one risk vs. none (Sample = 2,505)[12]	1.05	2.86**
Any two risks vs. none (Sample = 2,496)	1.80	6.06***
Any three risks vs. none (Sample = 2,164)	2.34	10.37***
Any four risks vs. none (Sample = 1,525)	3.03	20.71***
Any five risks vs. none (Sample = 851)	2.68	14.55***
Any six risks vs. none (Sample = 485)	3.41	30.28***

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

[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 aged 0 to 3 years during FY 2006-07, 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 10.37 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., 2,505 families had only one risk factor). 3,574 families had no risk factors.

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

	2003-04			2004-05			2005-06			2006-07		
	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	986 (19%)	99.4%	6/1,000	830 (18%)	99.4%	6/1,000	620 (16.5%)	99.2%	8/1,000	767 (19.1%)	99.7%	3/1,000
Assessed at moderate stress	2,207 (44%)	98.7%	13/1,000	2,046 (45%)	98.3%	17/1,000	1,766 (47.1%)	98.2%	18/1,000	1846 (46%)	99.3%	7/1,000
Assessed at high stress	1,690 (34%)	96.0%	40/1,000	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
Assessed at severe stress	150 (3%)	92.6%	74/1,000	125 (3%)	91.2%	88/1,000	94 (2.5%)	92.6%	74/1,000	90 (2.2%)	96.7%	49/1,000
Total higher-risk families interviewed	5,033	97.7%	23/1,000	4,509	97.4%	26/1,000	3,750	97.7%	23/1,000	4,012	98.5%	15/1,000

[13] Statistics describe confirmed reports of child maltreatment for Healthy Start children aged 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.