Healthy Start

2004-2005 Maltreatment Report

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Human services research designed to promote effective decision-making by policymakers at the national, state and community level

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HEALTHY START MALTREATMENT REPORT 2004-2005

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.occf.gov).

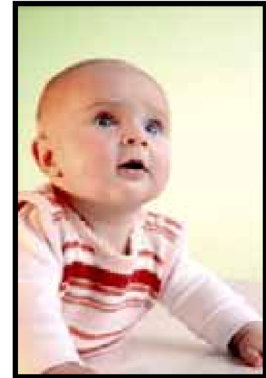
Child Maltreatment in Context

In Oregon, there were 10,662 reported victims of child abuse or neglect in FY 2003-04; in FY 2004-05 there were 11,255 total victims, an increase of 6% overall, and 7% for victims under the age of 3 years (OR DHHS, 2005). This reflects a trend over the past 4 years of increasing numbers of maltreatment reports 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 2005, 62% of Oregon children in foster care had a parent with drug 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 due to data demonstrating that in general from 2000 to 2004, the number of children in foster care 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, 50% of all substantiated victims of abuse or neglect were under age 6, and 30% were under age 3. Infants (children under 1 year of age) represent 15% of the overall victims, by far the largest single age group. Consistent with Oregon statistics, national data also find 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). Children ages 0 to 6 comprise 39% of the children served in foster care in Oregon. The recent 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 re-

search studies, Sweet & 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, & Lowenfels (2005), in their randomized study of Healthy Families New York, 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, Sterns & 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 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 parents who would never neglect or maltreat their child can benefit from programs such as Healthy Start by learning to provide a more optimum parenting environment for their children. The family environment, and the quality of parenting provided, represents perhaps the most important influence on young children's development, and is critically important to starting young children on a positive developmental pathway to better long-term life outcomes (Shonkoff & Phillips, 2000). The Healthy Start Annual Status Report (Green, Mackin, Tarte, Brekhus, & Andrews, 2006),

[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.

2006) presents results for these 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 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., 2006).

However, the Healthy Start program has elected to examine actual reported maltreatment rates because of the importance of this benchmark to understanding the role of Healthy Start in supporting Oregon's children. 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 2004-05.

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, office of Child, Adult, and Families (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 CAF, who matches the Healthy Start sample with its records of substantiated maltreatment reports. The dataset is then stripped of identifiers except for numeric Healthy Start ID number and returned to NPC Research for analysis.

It is important to note that there were several significant changes for the data-matching procedures for this report, in contrast to prior years. First, as just described, this year was the first year in which the approved data-sharing agreement allowed NPC Research to obtain individual-level (de-identified) data from CAF. This change is significant in that it allows the evaluation team to conduct much more sophisticated and detailed analyses linking other sources of Healthy Start evaluation data with maltreatment data. Second, data were matched based on victimization occurring during the Healthy Start fiscal year July 1, 2004, through June 30, 2005, rather than the calendar year, to ensure greater consistency of reporting with other Healthy Start results. Prior evaluations of Healthy Start of Oregon have used maltreatment reports based on a calendar, rather than a fiscal, year. Third, because NPC and OCCF created the Healthy Start file to be matched with CAF maltreatment data, identifying information was more complete than in prior years, when matching was based on information obtained from the Women & Children's Health Data System (WCHDS). Thus, the ability to successfully match Healthy Start participants with maltreatment records may have been improved due to more complete data available for Healthy Start families.

Research Sample

HEALTHY START GROUP

The results presented below utilized the substantiated report records for FY 2004-05 for the 18,640 Healthy Start children who were up to age 3 during this period. This analysis included all children served through Healthy Start's screening and referral process as well as those served through Intensive Home Visiting.

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.

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 41% of children during both FY 2003-04 and FY 2004-05, 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 unserved families are important to note. First, the Healthy Start group includes primarily first-born children, while the general unserved population includes subsequent births. Parents of multiple children may be somewhat more likely to abuse or neglect their children (Heinz 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 in the Healthy Start group as compared to the general population (Green et al., 2006). Thus, the Healthy Start group is relatively higher risk compared to those families who were not served.

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 separate 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 Table A, children served by Healthy Start had lower victimization rates compared to similar-aged unserved children (15 per 1,000 compared to 24 per 1,000; county-level data are shown in Table 1 in Appendix A). These rates are relatively similar to prior years' results, although rates are slightly higher in both the Healthy Start and the comparison groups.

In FY 2004-05, 98.5% of Healthy Start's children up to 3 years old were free from maltreatment. This result compares favorably to non-Healthy Start children, who were 97.6% free from maltreatment. A comparison of child abuse statistics for 4 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 those free from maltreatment has not varied markedly over the past 3 years, ranging from 99.1% in 1998, to 98.5% in FY 2004-05. However, because of the changes in data-matching procedures and the time period for maltreatment reports that occurred this year, comparisons with prior years' data should be made with caution.

Table A. Child Maltreatment Among Healthy Start and Non-Healthy Start Families

Children Aged 0 to 3	2003-03		2003-04		2004-05	
	Healthy Start	Non-Healthy Start	Healthy Start	Non-Healthy Start	Healthy Start	Non-Healthy Start
Number*	12,919	152,019	19,662	111,397	18,640	114,341
Free from maltreatment	98.8%	97.8%	98.8%	98.0%	98.5%	97.6%
Maltreatment rate per 1,000 children	12/1,000	22/1,000	12/1,000	20/1,000	15/1000	24/1000
% of first births funded for Healthy Start	47%	___	47%	___	41%	___

*Healthy Start serves primarily first-birth children. Statistics for non-served families include all children, ages 0 to 3 years, regardless of birth order.

Ideally, it would be possible to compare the rates of child maltreatment for the higher-risk families receiving Intensive Services to a similarly high-risk group of families who did not receive Intensive Services. At this time such a comparison is not possible, given current evaluation structure and program resources. However, in FY 2004-05, as a part of the ongoing credentialing efforts, a policy was instituted that would allow the evaluation to identify families who were eligible for Intensive Services but who were unable to be served due to funding constraints or other issues. This group will provide a stronger quasi-experimental comparison group in the future so that the evaluation can more directly examine the influence of Healthy Start on the maltreatment rates for the higher-risk Intensive Service families.

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 teenaged parents, the percentage free from maltreatment is lower for teen parents (97.1% free from maltreatment vs. 98.7% for non-teens), but are still somewhat higher than what was found for the NFP program's treatment group (96% free from maltreatment). 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 significantly 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 than those for families who were served only with screening, information, and referral services (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 quite comparable to the rate for the general population of unserved Healthy Start families (26 per 1,000 vs. 24 per 1,000). On average, Healthy Start Intensive Service families had three risk factors; families served with only screening, information, and referrals had just over one risk factor, on average. As shown below, family risk status is strongly associated with increased incidence of maltreatment.

Additionally, the data showed evidence of the expected "surveillance" effect – 4.4% of substantiated reports were made by Healthy Start workers, and workers made a total of 55 reports on 50 families.

Maltreatment and Risk Factors

Child maltreatment rates are strongly related to results from risk screening. As shown in Figure 1, 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 receiving early comprehensive prenatal care, having unstable housing, experiencing marital or family conflict, having a history of sub-

stance abuse or mental health problems, and having less than a high school education.

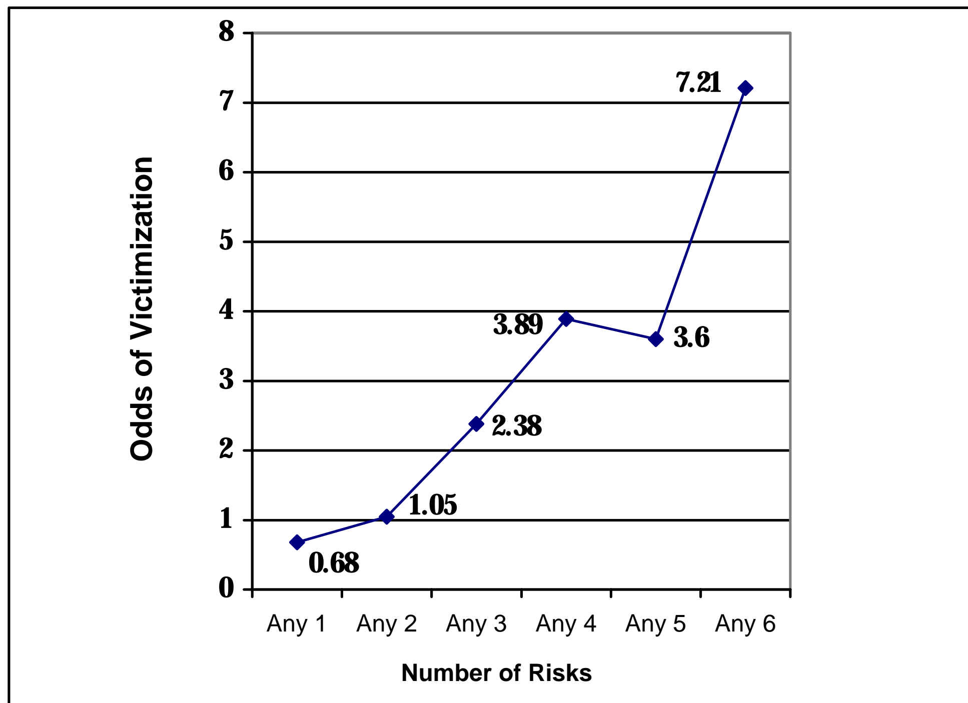
Regardless of which specific risk factors are present, Healthy Start data have consistently found that as the number of risk factors increase, the likelihood of maltreatment increases. As can be seen in Figure 1, and Table 3 in Appendix A, the odds of abuse occurring do not increase for families having one risk factor (vs. no risk factors), but when families have any three risk characteristics, they are more than twice as likely to have a reported abuse incident than families with no risk factors. The odds of abuse are seven times higher for families with six risk factors.

Results also show that that scores on the Kempe Assessment are strongly linked to rates of maltreatment. The rate of child abuse and neglect is 17 per 1,000 for children whose families score in the "moderate" stress range. This rate climbs to 43 per 1,000 children for families with high stress, and to 88 per 1,000 for families at the highest stress levels (see Table 4 in Appendix A).

Quality of Program Implementation and Maltreatment Rates

Because of the importance of program implementation, and because Oregon's Healthy Start program worked consistently during FY 2004-05 to improve the quality of program implementation, we conducted analyses to address the question of whether Healthy Start communities in which programs are better implemented have greater reductions in their child maltreatment rates.

Figure 1. Likelihood of Maltreatment by Number of Risks on Healthy Start OCP/NBQ Screen



In fall 2005 and winter 2006, Oregon's Healthy Start program established a Restructure Committee to examine program functioning and make recommendations regarding how to best improve program efficiency and make performance-based decisions about allocation of funds. As a part of this process, a set of program Performance Indicators was developed, based on data collected during the 2004-05 fiscal year. Performance Indicators included variables known to be important to program outcomes, as well as indicators specifically designed to address Oregon's service priorities. The indicators were:

1. The percentage of target families offered screening and the number of screens conducted;
2. The number of days between the child's birth and screening;
3. The number home visits provided to families per month during the first 6 months of service;
4. The percentage of families dropping out during the first 3 months of service;
5. The number of families engaged in services for 12 months or more;
6. The percentage of eligible births enrolled in Intensive Services; and
7. The average cost per Intensive Service family.

Counties were grouped into three categories, based on the number of performance indicators that met agreed-upon standards of acceptable implementation (based, where applicable, on Healthy Families America performance standards). Programs were grouped as follows:

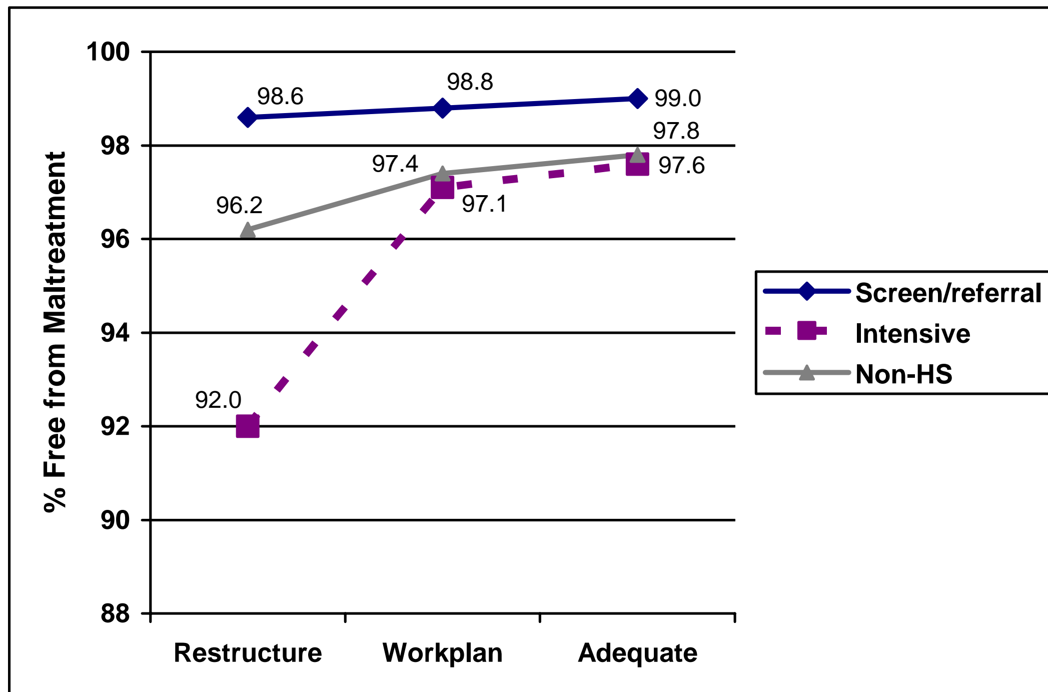
1. Adequate Performance (22 programs, 13,408 children): Programs performing adequately on 5, 6 or 7 of the indicators;
2. Monitored Workplan (9 programs, 5,048 children): Programs that had 3 or 4 out of 7 performance indicators that indicated adequate performance; and
3. Required Restructuring (4 programs, 148 children): Programs that had acceptable performance on 0, 1 or 2 of the 7 performance indicators.

Analyses were conducted comparing the maltreatment rates of counties in these three groups. As shown in Figure 2, counties with serious implementation problems ("Restructure" counties) had significantly higher rates of maltreatment than either Workplan or Adequately performing counties. This effect was significant, X^2(df 2) = 11.84, p<.01. Moreover, this difference was primarily for families in the Intensive Service group, suggesting that it is problems with the implementation of home visiting services that is influencing these rates, as opposed to differences in overall community rates for these counties. These differences strongly support the idea that quality program implementation is critical for program effectiveness. Those programs with the best implementation, and which were most consistent with HFA standards, were most effective in influencing maltreatment. Programs falling into the "Restructure" category were required to submit a plan to fundamentally revise their service delivery plan prior to receiving funding for FY 2005-06. OCCF is closely monitoring these programs' progress in order to ensure a high standard of program performance.

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 2004-05, only 17% of all reports involved physical or sexual abuse charges; the remaining were related to neglect (29%) or "threat of harm" (51%). 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.

Figure 2. Percent Free From Maltreatment by Program Implementation Group



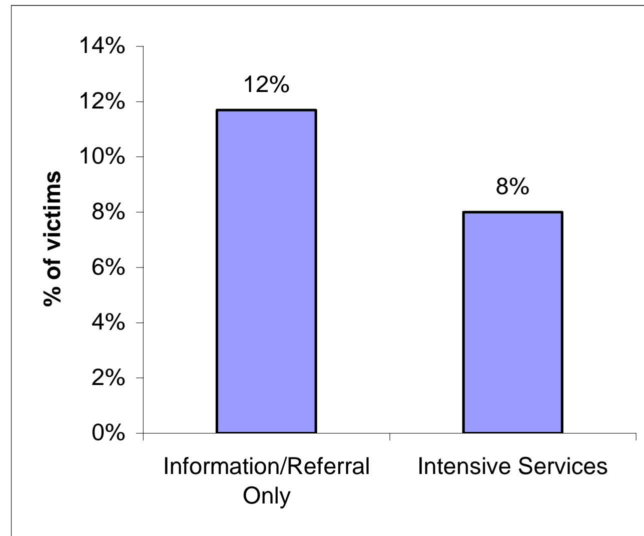
One benefit of Healthy Start may be to reduce the seriousness of maltreatment. That is, if maltreatment cannot be prevented in its entirety, the program may, through its early identification of family problems and required reporting of potentially dangerous situations, reduce the likelihood of the most serious forms of abuse. To examine this question, we analyzed the incidence of physical abuse reports for Healthy Start Intensive Service families vs. families who received only screening, information, and referral services.

Consistent with the notion that Healthy Start may reduce the incidence of more serious abuse, the percentage of victims who experienced physical abuse was somewhat lower for the Healthy Start Intensive Services group (8%) than for the Healthy Start Information/Referral group (12%), although this difference did not reach statistical significance due to the overall small number of victims who experienced physical abuse; see Figure 3). This finding suggests that Healthy Start Intensive Services may be serving a "harm reduction" function by intervening earlier in the course of abuse/neglect and decreasing the probability of more severe physical abuse.

However, it should be noted that the overall rates of physical abuse were quite low — only about 10% of all reports involve physical abuse. Most of Healthy Start's confirmed victims of abuse experienced threat of harm (76%). Victims also experienced neglect (42%), physical abuse (10%), mental injury (4%), and other forms of abuse (1%) including sexual abuse and abandonment.[1]

[1] Some children experience more than one type of abuse, so these percentages do not add to 100%.

Figure 3. Percentage of Victims Experiencing Physical Abuse by Healthy Start Service Group



SUMMARY & DISCUSSION

Overall, the findings from our analyses of the FY 2004-05 child maltreatment data indicate that children served by Healthy Start had a lower victimization rate than nonserved children, and that the maltreatment rates are similar to prior years, though rates are slightly higher in both groups, reflecting an increase in substantiated abuse reports throughout the state. The rate of children free from maltreatment who were involved in Healthy Start Intensive Services (97.4%) compares favorably to other studies of home visitation programs for at-risk families. As would be expected, Intensive Service families had both higher numbers of risk factors for child maltreatment (3 risk factors, compared to only 1 risk factor for families receiving screening and referral only) and higher rates of substantiated maltreatment. A surveillance effect was evident, demonstrating that some reports of maltreatment were actually made by the Healthy Start workers, due to their frequent contact and observation of the high-risk families they work with. Consistent with prior years, rates of maltreatment were also associated with the number of risk factors and the family's level of stress. For the first time, the evaluation was able to demonstrate a positive impact of program implementation: programs with better implementation had lower rates of child maltreatment.

While the overall increase in victimization in Oregon is cause for concern, it provides an important context in which to interpret this year's Healthy Start maltreatment data. Healthy Start, while serving many children and families, was funded to serve the smallest overall percentage of births per county in FY 2004-05 than in any previous year. Thus, the percent of families in each county who were served by Healthy Start was quite low. Further, Healthy Start is only one element in the child prevention and family support system in Oregon; other important Oregon services for at-risk families struggled under limited budgets during FY 2004-05, and reductions to services such as health insurance, mental health, and, perhaps most importantly, substance abuse treatment, have limited the ability of Healthy Start providers to successfully link Healthy Start clients to the network of services that are needed by the most at-risk families. Given these conditions, it is especially encouraging that Oregon's Healthy Start program continues to be associated with reducing the incidence of child maltreatment. Further, these data strongly support Oregon's decision to pursue HFA credentialing, as well as to move towards performance-based funding and monitoring. Program quality appeared to be strongly linked to the effectiveness of county-level programs to reduce maltreatment.

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APPENDIX A: HEALTHY START OF OREGON 2004-2005 MALTREATMENT REPORT DATA TABLES

Table 1. Children Aged 0 to 3 Free From Maltreatment (FY 2004-05) for Healthy Start and Non-Healthy Start

Site	Healthy Start Children				Non-Healthy Start Children			
	Child abuse victims in FY 04-05[1]	Total Healthy Start children, aged 0 to 3 yrs	% free from maltreatment[2]	Incidence rate per 1,000	Child abuse victims in FY 04-05	Number children, 0 to 3 yrs not served by Healthy Start	% free from maltreatment[2]	Incidence rate per 1,000
Benton	6	622	99.0%	10	23	1,641	98.6%	14
Clackamas	7	1,207	99.4%	6	94	10,771	99.1%	9
Clatsop	^	^	^	^	16	987	98.4%	16
Columbia	^	^	^	^	22	1,449	98.5%	15
Coos	6	76	92.1%	79	75	1,800	95.8%	42
Crook	^	^	^	^	21	596	96.5%	35
Curry	^	^	^	^	14	337	95.8%	42
Deschutes	13	1,335	99.0%	10	52	3,093	98.3%	17
Douglas	9	591	98.5%	15	72	2,518	97.1%	29
Gilliam	0	12	100.0%	0	^	^	^	^
Grant	^	^	^	^	^	^	^	^
Harney	^	^	^	^	8	198	96.0%	40
Hood River	^	^	^	^	15	703	97.9%	21
Jackson	26	958	97.3%	27	203	5,150	96.1%	39
Jefferson	^	^	^	^	36	882	95.9%	41
Josephine	^	^	^	^	45	1,896	97.6%	24
Klamath	^	^	^	^	98	2,042	95.2%	48
Lake	^	^	^	^	^	^	^	^
Lane	24	2,138	98.9%	11	234	7,952	97.1%	29

Note: The Oregon State Office of Services to Children and Families (SCF) electronically checked records of 18,640 Healthy Start children born between July 1, 2002, and December 31, 2004, for confirmed incidents of child maltreatment. These results exclude 171 cases because of prior involvement with DHS (to FY 2004-05, to the NBQ screening and/or as reported at the time of the Family Intake).

Total Healthy Start children include screened/referred families (no home visiting) and Intensive Service families (these results exclude 46 additional cases because of missing Healthy Start county of service). **Non-Healthy Start Children** are the total number of children born in each county between 2002 and 2004 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 to 3 years, for each county *minus* the number of Healthy Start victims.

[2]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 included in the overall results, but cannot be reported at the county level.

Site	Healthy Start Children				Non-Healthy Start Children			
	Child abuse victims in FY 04-05[1]	Total Healthy Start children, aged 0 to 3 yrs	% free from maltreatment[2]	Incidence rate per 1,000	Child abuse victims in FY 04-05	Number children, 0 to 3 yrs not served by Healthy Start	% free from maltreatment[2]	Incidence rate per 1,000
Lincoln	6	207	97.1%	29	38	1,092	96.5%	35
Linn	21	692	97.0%	30	143	3,348	95.7%	43
Malheur	^	^	^	^	42	1,294	96.8%	32
Marion	26	1,675	98.4%	16	421	11,802	96.4%	36
Morrow	0	85	100.0%	0	16	428	96.3%	37
Multnomah	46	3,471	98.7%	13	569	24,468	97.7%	23
Polk	15	877	98.3%	17	37	1,139	96.8%	32
Sherman	0	10	100.0%	0	0	42	100.0%	0
Tillamook	8	292	97.3%	27	11	407	97.3%	27
Umatilla	21	934	97.8%	22	76	2,154	96.5%	35
Union	^	^	^	^	24	652	96.3%	37
Wallowa	0	29	100.0%	0	^	^	^	^
Wasco	^	^	^	^	22	549	96.0%	40
Washington	^	^	^	^	232	21,308	98.9%	11
Yamhill	^	^	^	^	55	3,100	98.2%	18
Total	**277**	**18,640**	**98.5%**	**15**	**2,724**	**114,341**	**97.6%**	**24**

Note: The Oregon State Office of Services to Children and Families (SCF) electronically checked records of 18,640 Healthy Start children born between July 1, 2002, and December 31, 2004, for confirmed incidents of child maltreatment. These results exclude 171 cases because of prior involvement with DHS (to FY 2004-05, to the NBQ screening and/or as reported at the time of the Family Intake).

Total Healthy Start children include screened/referred families (no home visiting) and Intensive Service families (these results exclude 46 additional cases because of missing Healthy Start county of service). **Non-Healthy Start Children** are the total number of children born in each county between 2002 and 2004 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 to 3 years, for each county *minus* the number of Healthy Start victims.

[2]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 included in the overall results, but cannot be reported at the county level.

Table 2. Children Aged 0 to 3 Free from Maltreatment by Service Type (FY 2004-05)

Lower Risk Screened/Referred vs. Higher Risk Intensive Service[3]

Site	Children in Healthy Start Screened/Referred Families				Children in Healthy Start Intensive Service Families			
	Child abuse victims in FY 04-05[1]	Screening/ referral children, 0 to 3 years	% free from maltreatment[2]	Incidence rate per 1,000	Child abuse victims in FY 04-05[1]	Intensive Service children, 0 to 3 yrs	% free from maltreatment[2]	Incidence rate per 1,000
Benton	^	^	^	^	^	^	^	^
Clackamas	^	^	^	^	^	^	^	^
Clatsop	^	^	^	^	^	^	^	^
Columbia	^	^	^	^	^	^	^	^
Coos	^	^	^	^	^	^	^	^
Crook	^	^	^	^	^	^	^	^
Curry	^	^	^	^	^	^	^	^
Deschutes	7	1,162	99.4%	6	6	173	96.5%	35
Douglas	^	^	^	^	^	^	^	^
Gilliam	0	10	100.0%	0	0	2	100.0%	0
Grant	^	^	^	^	^	^	^	^
Harney	^	^	^	^	^	^	^	^
Hood River	^	^	^	^	^	^	^	^
Jackson	6	454	98.7%	13	20	504	96.0%	40
Jefferson	^	^	^	^	^	^	^	^
Josephine	^	^	^	^	^	^	^	^
Klamath	^	^	^	^	^	^	^	^

Note: The Oregon State Office of Services to Children and Families (SCF) electronically checked records of 18,640 Healthy Start children born between July 1, 2002, and December 31, 2004, for confirmed incidents of child maltreatment. These results exclude 46 cases because of missing Healthy Start county of service. Another 171 cases are excluded because of prior involvement with DHS (to FY 2004-05, to the NBQ screening and/or as reported at the time of the Family Intake).
Screened/referred families (with no home visiting) include families who screened negative on the New Baby Questionnaire (NBQ); families who screened positive on the NBQ, but had a score of less than 25 on the Kempe Family Stress Inventory (KFSI), or no further assessment was conducted (due to full caseloads or parental decline of the assessment). These families did not receive on-going home visits. **Intensive Service** include those families who screened positive on the New Baby Questionnaire and who scored 25 or higher on the Kempe (KFSI). Intensive service families accepted and received on-going home visits.
[2] Percentages are affected by sample size and can be misleading when sample sizes are small.
[3] Families receiving screening/referral only had about one risk factors on the NBQ, significantly fewer than Intensive Service families (about 3 risk factors).
^ Due to DHS restrictions on reporting data about small samples, these data are included in the overall results, but cannot be reported at the county level.

Site	Children in Healthy Start Screened/Referred Families				Children in Healthy Start Intensive Service Families			
	Child abuse victims in FY 04-05[1]	Screening/ referral children, 0 to 3 years	% free from maltreatment[2]	Incidence rate per 1,000	Child abuse victims in FY 04-05[1]	Intensive Service children, 0 to 3 yrs	% free from maltreatment[2]	Incidence rate per 1,000
Lake	^	^	^	^	^	^	^	^
Lane	^	^	^	^	^	^	^	^
Lincoln	^	^	^	^	^	^	^	^
Linn	^	^	^	^	^	^	^	^
Malheur	^	^	^	^	^	^	^	^
Marion	18	1,187	98.5%	15	8	488	98.4%	16
Morrow	0	43	100.0%	0	0	42	100.0%	0
Multnomah	27	2,570	98.9%	11	19	901	97.9%	21
Polk	9	715	98.7%	13	6	162	96.3%	37
Sherman	0	2	100.0%	0	0	8	100.0%	0
Tillamook	^	^	^	^	^	^	^	^
Umatilla	13	824	98.4%	16	8	110	92.7%	73
Union	^	^	^	^	^	^	^	^
Wallowa	0	19	100.0%	0	0	9	100.0%	0
Wasco	^	^	^	^	^	^	^	^
Washington	^	^	^	^	^	^	^	^
Yamhill	^	^	^	^	^	^	^	^
Total	**138**	**13,318**	**99.0%**	**10**	**139**	**5,322**	**97.4%**	**26**

Note: The Oregon State Office of Services to Children and Families (SCF) electronically checked records of 18,640 Healthy Start children born between July 1, 2002, and December 31, 2004, for confirmed incidents of child maltreatment. These results exclude 46 cases because of missing Healthy Start county of service. Another 171 cases are excluded because of prior involvement with DHS (to FY 2004-05, to the NBQ screening and/or as reported at the time of the Family Intake).
Screened/referred families (with no home visiting) include families who screened negative on the New Baby Questionnaire (NBQ); families who screened positive on the NBQ, but had a score of less than 25 on the Kempe Family Stress Inventory (KFSI), or no further assessment was conducted (due to full caseloads or parental decline of the assessment). These families did not receive on-going home visits. **Intensive Service** include those families who screened positive on the New Baby Questionnaire and who scored 25 or higher on the Kempe (KFSI). Intensive service families accepted and received on-going home visits.

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

[3] Families receiving screening/referral only had about one risk factors on the NBQ, significantly fewer than Intensive Service families (about 3 risk factors).

^ Due to DHS restrictions on reporting data about small samples, these data are included in the overall results, but cannot be reported at the county level.

Table 3. Likelihood of Child Maltreatment Based on Number of Risks[1] (FY 2004-05)

	Parameter Estimate	Odds of Child Victimization[3]
Any one risk vs. none (Sample = 3,447)[2]	-.383	.682
Any two risks vs. none (Sample = 2,929)	.047	1.05
Any three risks vs. none (Sample = 2,436)	.867	2.38**
Any four risks vs. none (Sample = 1,852)	1.36	3.89**
Any five risks vs. none (Sample = 1,063)	1.28	3.60**
Any six risks vs. none (Sample = 505)	1.98	7.21**

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

Note: 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 2004-05, for which there was child victimization information.

[1] The number of risks was measured by the Oregon Children's Plan assessment or by the New Baby Questionnaire.

[2] Sample sizes reflect the number of families within each risk grouping (e.g., 3,447 families had only one risk factor).

[3] 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 2.38 times more likely to have been confirmed victims of child maltreatment than children whose families had no risks.

Table 4. Child Maltreatment Victims by Stress Level

	2001			2002			2003			2004		
	Number (Percent)	No Abuse	Victims	Number (Percent)	No Abuse	Victims	Number (Percent)	No Abuse	Victims	Number (Percent)	No Abuse	Victims
Kempe Family Stress Assessment												
Assessed at low stress	379 (13%)	100.0%	0/1,000	667 (18%)	99.0%	10/1,000	986 (19%)	99.4%	6/1,000	830 (18%)	99.4%	6/1,000
Assessed at moderate stress	1,285 (45%)	98.8%	12/1,000	1,554 (43%)	99.0%	10/1,000	2,207 (44%)	98.7%	13/1,000	2,046 (45%)	98.3%	17/1,000
Assessed at high stress	1,116 (39%)	96.0%	40/1,000	1,247 (35%)	96.6%	34/1,000	1,690 (34%)	96.0%	40/1,000	1,508 (33%)	95.7%	43/1,000
Assessed at severe stress	99 (3%)	89.2%	108/1,000	129 (4%)	92.4%	78/1,000	150 (3%)	92.6%	74/1,000	125 (3%)	91.2%	88/1,000
Total higher-risk families interviewed	2,879	97.5%	25/1,000	3,597	97.9%	27/1,000	5,033	97.7%	23/1,000	4,509	97.4%	26/1,000

Note: Statistics describe confirmed cases 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 are interviewed by trained assessment workers using the Kempe Family Stress Assessment.

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. Families with moderate to higher levels of stress (25 or higher) are offered Healthy Start's intensive visiting services.