Illinois Child Endangerment Risk Assessment Protocol:

A Technical Report Concerning the Implementation and Validation of the Protocol

August 14, 1998

Report Edited by:

Tamara Fuller, M.A.
Project Coordinator

and

Susan J. Wells, Ph.D.
Principal Investigator

A Project of the

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The Children and Family Research Center is an independent research organization created jointly by the University of Illinois at Urbana-Champaign and the Illinois Department of Children and Family Services to provide an independent evaluation of outcomes for children who are the responsibility of the Department. Funding for this work is provided by the Department of Children and Family Services, under a cooperative agreement detailing the independent reporting responsibilities of the Center.

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EXECUTIVE SUMMARY

This is the technical report corresponding to the third annual report to the Illinois General Assembly concerning the evaluation of the Child Endangerment Risk Assessment Protocol (CERAP). The report summarizes ongoing research regarding implementation and validation of the CERAP. In the 1997 report to the legislature, members of the DCFS Risk Assessment Protocol Advisory Committee outlined a set of goals for FY1998, which included:

- Further examination of the implementation of the CERAP, including an analysis of CERAP use by follow-up caseworkers
- Further examination of the rates of maltreatment recurrence in the second year following CERAP implementation
- An additional record review analysis of a sample of cases in which indicated re-reports of maltreatment occurred to explore the relationships among CERAP use, case characteristics, service provision, and maltreatment recurrence

DCFS, in conjunction with the Children and Family Research Center, has implemented efforts toward achieving these goals in the following manner:

- Review of 1,671 CERAP records for 561 intact and substitute care cases served by DCFS and private service provider agencies to evaluate the implementation of the CERAP over the life of a case
- Examination of the reduction in recurrences of abuse and neglect for the children already reported the Department through continued evaluation of CERAP
- Comparison of cases where abuse or neglect recurred with those where there were no subsequent indicated reports to determine the relationship between the use of the CERAP and safety for the children served

CERAP IMPLEMENTATION

DCFS managers and supervisors read 561 cases to determine if investigators and caseworkers were completing the CERAP Safety Determination Form when necessary and in its entirety. The times, or milestones, at which a CERAP should be completed are:
1) within 24 hours of a report; 2) within 5 working days of case opening; 3) every 6 months for intact families; 4) before starting unsupervised visits for children in substitute care; 5) before an administrative case review when at least one child is at home and another is in care; 6) prior to returning a child home from substitute care; 7) prior to case closing; and 8) whenever a child is in jeopardy.

Record review identified these important facts about CERAP completion by workers:

- **CERAP is most likely to be completed: during investigation, before closing a case and when a child's safety appears to be in jeopardy.**
- **93% of intact family cases (250/269) with an alleged report of abuse or neglect had a CERAP completed during the investigation.**
- **90% of substitute care cases (57/63) and 81% of intact family cases (26/32) had a CERAP completed when a child's safety appeared to be in jeopardy.**
- **87% of substitute care cases (90/103) had a CERAP completed prior to closing the case.**
- **Completion rates at other milestones were lower, usually between 50-60%.**

For those CERAP forms completed, 86% to 94% had a completed Safety Factor Identification checklist, and 91% to 95% had a Safety Decision. The CERAP forms were less likely to contain a completed safety protection plan, with completion rates ranging between 38% and 73% completion. Safety plans often included mention of the specific activities to be completed by each individual (59% in substitute care cases and 73% among intact family cases), but were less likely to include an identification of specific individuals to monitor compliance with the safety plan (38% versus 39% for intact family and substitute care cases, respectively).

Risk factors most frequently identified by workers as present in both intact and substitute care family cases included: 1) Insufficient Supervision, 2) Drug or Alcohol Abuse by Parent/Caretaker, and 3) Parent/Caretaker Has Caused Previous Harm. These

risk factors were present in over 20% of the completed CERAP forms. Additional risk factors that were present in 10% or more of the forms included:
1) Parent/Caretaker Has Caused Moderate to Severe Harm to the Child; 2) Parent Unable to Meet Basic Needs of Child; 3) Suspicion of Sexual Abuse; 4) Mental Illness or Developmental Disability of Parent; and 5) Domestic Violence.

RECURRENCE OF CHILD ABUSE AND NEGLECT

Recurrence of child abuse and neglect in the 60 days after a child's first report decreased by 28.6%. Reduction in recurrence of abuse and neglect was studied by tracking those children who were reported for the first time between December 1994 and November 1997. The rate of maltreatment recurrence (during the first 60 days after an initial report) in the year prior to CERAP implementation was compared to the rate of maltreatment recurrence during the two years after implementation. The rate of maltreatment recurrence continued to decline during the second year following CERAP implementation, dropping 11.8% for a total reduction in recurrence of 28.6%. Additional analyses revealed that this decrease is not accounted for by changes in policy regarding risk of harm/inadequate supervision or substance exposed infants that occurred after the CERAP was implemented.

The decrease in recurrence in Illinois is not accounted for by a systematic decrease in recurrence nationally. Recurrence rates during the same time period were analyzed for six additional states. Delaware, Florida, Louisiana, Massachusetts and Vermont showed no changes in recurrence rates, while Illinois and New Jersey each had lower recurrence rates. Several possible explanations exist for the decrease in recurrence in New Jersey, including a change in policy concerning Child Protective Services investigations within the time period of interest. These findings therefore support the proposition that there is no national trend suppressing recurrence and thereby causing the decreases in recurrence that Illinois observed.

RISK FACTORS FOR SHORT TERM RECURRENCE OF CHILD ABUSE OR NEGLECT

Intact families who re-abused or neglected their children within 60 days after being reported to DCFS were compared to families who did not have indicated re-reports in that time period. The study included 171 families who experienced indicated re-reports of maltreatment

and 179 who did not. Seventeen variables were tested to determine the relationship of CERAP completion and safety assessment, demographic information, case characteristics, and service provision to recurrence of maltreatment.

When taken all together, the factors that were most predictive of a second indicated report of abuse or neglect within 60 days were:

- **No CERAP completed**
- **Prior indicated reports on perpetrators**
- **More than 4 family problems**
- **No services provided during the first 60 days after case opening**

Results indicated that cases with no CERAP in their record for the "within 5 working days of case assignment" milestone were almost *four times* more likely to have an additional indicated report within 60 days as cases that did have a completed CERAP for this milestone. Thus, something associated with the process of CERAP completion at this milestone seems to be associated with a lower risk of short-term maltreatment recurrence. In addition, one risk factor identified in previous research (history of previous reports) again proved useful in identifying those cases most likely to experience maltreatment recurrence. Analyses also revealed that families that have multiple problems, such as drug or alcohol abuse, domestic violence, unemployment, or homelessness, are over twice as likely to experience maltreatment recurrence than families without several coexisting problems. Finally, the results seem to indicate that providing at least one service to families during the first 60 days after case opening protects them against short-term maltreatment recurrence.

Even though the factors listed above are important in identifying the risk of recurrence, they explain only a small percent of the reasons behind recurrent child maltreatment. Valid and reliable prediction of abuse or neglect is not yet possible given current knowledge in the field. However, instruments such as the CERAP provide valuable guidance to workers and increase their ability to identify those cases at higher risk for abuse and neglect and its recurrence. Ultimately, information gained from such instruments allow casework priorities and services to be set and assigned to fullest advantage.

Illinois Child Endangerment Risk Assessment Protocol

Implementation Evaluation

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Introduction

The Illinois Department of Children and Family Services (DCFS) Office of Quality Improvement (OQI), in conjunction with the Operations Division, evaluated the implementation of the Child Endangerment Risk Assessment Protocol (CERAP). Last year's report focused on the Child Protection Division; this report, therefore, focuses on the other two types of direct service cases, Intact Families and Substitute Care. This report evaluates the implementation of the CERAP Safety Determination form by DCFS and private agency workers. The study examines two questions:

- Is the CERAP Safety Determination form completed when a case milestone occurs?
- If so, is it completed (a) according to the guidelines and (b) in its entirety?

A total of 800 cases statewide were randomly drawn: 400 cases from Substitute Care (child cases) and 400 cases from Intact (family cases). Managers and supervisors from the Operations and Child Protection Divisions were trained to review the 800 sampled cases. Reviewers read cases from outside their region to avoid any conflict of interest. Child Protection and Operations staff shared the tasks of distributing and collecting the data collection forms for this study. All instruments were then sent to OQI for data entry and analysis.

Of the total number of 400 Intact Family cases, 273 (68.25%) were used for this report. Of the 127 cases not utilized, 10 could not be located, 14 were eliminated at the data entry stage, and 103 cases were not returned to OQI. It should be noted that the majority of cases not returned were cases assigned to private agencies and one of the Cook County regions, therefore, the representativeness of the original sample is weakened.

Of the total number of 400 Substitute Care cases, 288 (72%) were used for this report. Of the 112 cases not utilized, 5 could not be located, 72 cases were eliminated at the data entry stage, and 35 cases were not returned to OQI.

Data Collection Measures

Two data collection instruments were created for this study: 1) the Control Form; and 2) the Study Form. One Control Form per case was used to collect information about which CERAP milestones had occurred and the number of CERAP forms found in the case record for each milestone.

A Study Form was used for each milestone that had occurred regardless of whether a CERAP Form was found in the record. The intention of the Study Form was to review the CERAP Form found in the record for each milestone that occurred. It was also used to record the absence of the CERAP Form when it should have been completed. Therefore, multiple

Study Forms per case were possible. Finally, the actual CERAP Forms found in the case records were copied and the data entered into the computer along with data of the Control Form and Study Forms.

The total number of Control Forms was 561, representing 273 Intact Family cases and 288 Substitute Care cases. The total number of Study Forms was 1671, representing 1362 Intact Family cases and 309 Substitute Care cases. The total number of CERAP Forms was 1122, representing 946 from the Intact Family cases and 176 from the Substitute Care cases. The average number of CERAP Forms found were 3.39 for Intact Family cases and .73 for Substitute Care cases.

Results

CERAP completion by milestone. Table 1 displays the total number of Study Forms completed. As mentioned above, reviewers completed 1362 forms for the Intact Family cases and 309 forms for the Substitute Care cases. Of the 1362 Study Forms completed for the Intact Family cases, 1023 were completed for a CERAP Form found in the record, and 339 (24.8%) were completed for no CERAP Form found in the record. For the Substitute Care sample, 123 (39.8%) of the 309 Study Forms were completed when no CERAP Form was found but one should have been.

Table 1 also displays the number of Study Forms completed for each milestone. The milestones most likely to occur for the Intact Family sample were (1) every 6 months (N=558), (2) within 24 hours of investigation (N=269), and (3) within 5 working days after assignment (N=238). However, when one looks only at the CERAP forms found in the record, a different pattern emerges. The milestones that occurred for which a CERAP Form was most likely to be present in the record, were: (1) within 24 hours of investigation (93%), (2) when the child's safety was in jeopardy (90%), and (3) prior to closing the case (87%).

For Substitute Care cases, the milestones most likely to occur were (1) within 5 working days after assignment (N=102) and (2) within 24 hours of investigation (N=77). Again, a different pattern emerges when one looks at those Substitute Care cases in which a CERAP Form was found. The milestones which occurred that were most likely to have a CERAP Form present in the record were (1) prior to closing the case (100%), (2) when the child's safety is in jeopardy (81%), (3) before an Administrative Case Review (ACR) when at least one child is in the home (77%), and (4) within 24 hours after the investigation (69%).

Table 1. Number of Study Forms Completed by Intact Families vs. Substitute Care Cases:
Status of CERAP Form in Case Record

	Intact Families	Substitute Care	Total
Number of Study Forms Completed (N=1671)*			
1. CERAP found in record	1023	186	1209
2. No CERAP found in record	339	123	462
Total	1362	309	1671
INTACT FAMILIES			
	Status of CERAP Form		
Milestone Checked on Study Form	Found	Not Found	Total
1. Within 24 hours	250 (93%)	19 (7%)	269
2. Within 5 working days	174 (73%)	64 (27%)	238
3. Every 6 months for Intact Families	374 (67%)	184 (33%)	558
4. Commencement of unsupervised visits	9 (50%)	9 (50%)	18
5. Before an ACR - one child in home, one in care	26 (50%)	26 (50%)	52
6. Prior to return home	31 (66%)	16 (34%)	47
7. Prior to closing the case	90 (87%)	13 (13%)	103
8. When child's safety is in jeopardy	57 (90%)	6 (10%)	63
Total	1011	337	1348
Missing			14
SUBSTITUTE CARE			
	Status of CERAP Form		
Milestone Checked on Study Form	Found	Not Found	Total
1. Within 24 hours	53 (69%)	24 (31%)	77
2. Within 5 working days	46 (45%)	56 (55%)	102
3. Every 6 months for Intact Families	11 (46%)	13 (54%)	24
4. Commencement of unsupervised visits	12 (48%)	13 (52%)	25
5. Before an ACR - one child in home, one in care	24 (77%)	7 (23%)	31
6. Prior to return home	4 (50%)	4 (50%)	8
7. Prior to closing the case	5 (100%)	0 (0%)	5
8. When child's safety is in jeopardy	26 (81%)	6 (19%)	32
Total	181	123	304
Missing			5

*A Study Form was completed for every CERAP form found in the record as well as for every CERAP form the reviewer determined should have been in the record. Multiple Study Forms are possible per record since these forms are completed for every milestone on the CERAP form that occurred during the life of the case record.

CERAP item completion. Table 2 displays information on the CERAP Forms found in the records and reviewed by staff. The reviewers first determined whether the CERAP Form was completed according to guidelines. The CERAP Form was completed according to guidelines for 74% of the Intact Family and 54.8% of the Substitute Care cases, which makes sense given that the rates reported for no CERAP Forms found for these two groups were 24.8% for Intact Family and 39.8% for Substitute Care.

The completion rates were generally high for the items on the CERAP Forms. Workers are to check off the milestone which occurred that necessitated the completion of the CERAP Form. These milestones were completed for 82.5% and 82.9% for Intact Family and Substitute Care cases, respectively.

Workers are then required to review 14 safety factors and determine if they are present or not. All 14 safety factors were completed (checked yes or no) in 93.8% and 86.1% for Intact and Substitute Care cases, respectively. Workers are also required to provide a description of the safety factors and any mitigating circumstances for the milestone completed. A description of the safety factors and mitigating factors were present in 90.5% and 87.8% of the Intact and Substitute Care cases, respectively. Based on this information, workers determine whether the child is safe or unsafe. This safety decision was checked for 94.9% and 90.5% of the Intact and Substitute Care cases respectively. Only cases in which the child has been determined to be unsafe is a safety protection plan needed. Safety plans appeared on the CERAP form for 89.5% and 77.9% of the Intact and Substitute Care cases, respectively. Signatures of both the worker and the supervisor are required on all CERAP forms. Both signatures appeared on 87.8% and 82.6% of the Intact and Substitute Care cases respectively. Both signatures are also required to be dated; dates for both signatures occurred for 83.3% and 86.0% of the Intact and Substitute Care cases, respectively.

For those cases in which a safety plan is required, several specific steps must be completed. First, the safety plan should identify specific individuals' responsibilities in relation to the plan. The safety plans in 72.9% and 58.8% of the Intact Family and Substitute Care cases, respectively, stated specific individuals and their responsibilities in relation to the plan. Second, the safety plan should include specific actions to be carried out. In 73.4% and 63.2% of the Intact and Substitute Care cases, respectively, the reviewers determined that specific actions were included in the safety plans. Third, the safety plan should identify individuals to monitor compliance with the safety plan. In 37.8% and 39.1% of the Intact and Substitute Care cases, respectively, the reviewers determined that individuals responsible for monitoring the safety plan were identified.

Table 2. Rate of Completion of Items on CERAP Form as Indicated on the Study Form by Intact Families vs. Substitute Care*				
	Intact Families		Substitute Care	
	Yes %	N	Yes %	N
1. Was the CERAP form completed according to guideline (time parameter or situation) of the milestone? 2. If no to #1, was the CERAP form completed at a later time for that milestone?	74.0%	1305*	54.8%	272*
If "No" to both # 1 & 2, the remainder of study form is not completed				
Check yes or no to indicate whether or not the section was completely filled out:				
3a. Was the Milestone checked off?	82.5	949**	82.9	146**
3b. Was the Safety Factor Identification section completed?	93.8	930	86.1	144
3c. Was there a description of the Safety Factors & Mitigating Circumstances?	90.5	941	87.8	147
3d. Was the Safety Decision checked off?	94.9	946	90.5	147
3e. Was the Safety Protection Plan completed?***	89.5	332	77.9	68
3f. Were the Signatures of the Worker and Supervisor present?	87.8	945	82.6	144
3g. Were both Signatures Dated?	88.3	938	86.0	143
4. Does the safety plan identify specific individuals responsibilities in relation to the plan?****	72.9	336	58.8	68
5. Did the safety protection plan include specific actions to be carried out?	73.4	334	63.2	68
6. Did the safety protection plan identify individuals to monitor compliance?	37.8	333	39.1	69

* The N for Intact Families is 1305 which excludes 63 cases in the milestone "child's safety is in jeopardy". Similarly, the N for Substitute Care is 272 excluding 31 cases for the same milestone. This is the one milestone that calls for a subjective opinion if it occurred or not, unlike the other milestones, which have objective criteria to make the decision. Therefore, the Advisory Committee made an a priori decision not to include these CERAPs in the data analysis.

**For questions #3 through 3g, the N for Intact Families is 966 and 149 for Substitute Care. These numbers represent the total Ns (1305 & 272) minus the forms in which a CERAP did not appear in the record (339 & 123 respectively). At times the N is lower due to missing information.

***Not all CERAPs required a safety plan, therefore, the base number is lower.

**** The Ns for questions 4 through 6 is lower because safety plans are not necessary for all cases; these questions were only for cases in which a safety plan was completed.

Safety factor specification. There are a total of 14 factors to be reviewed by the worker in the completion of the CERAP form. Table 3 displays which factors were checked on the CERAP Forms found in the Intact and Substitute Care samples. In the majority of cases (61.7%, N=692), there were no safety factors checked off on the CERAP form. For the remaining CERAP forms, one safety factor was checked in 21.7% (N=243) of the cases, two factors in 9.4% (N=106) of the cases, three factors in 4.0% (N=45) of the cases, and four or more factors in 3.2% (N=36) of the cases.

In general, the three factors most likely to be checked were (1) drug or alcohol abuse by the parent/caretaker (26%), (2) the parent/caretaker has caused previous harm to the child (24%), and (3) inadequate supervision of the child (22%). When one looks at the Intact Family and Substitute Care cases separately, these same three factors also appear to be the most frequent three choices, with the exception of "not sufficient supervision of the child" for the Intact Family cases (17%) when compared to the Substitute Care cases (42%).

Table 3. Factors Checked on CERAP Forms by Intact Families vs. Substitute Care (N=1122)*

	Intact Families (N=344)	Substitute Care (N=86)	Total** (N=430)
FACTORS			
1. Violent and Out of Control	6% (20)	20% (17)	9% (37)
2. Describe Child in Negative Terms	8% (27)	6% (5)	7% (32)
3. Have Caused Moderate to Severe Harm to Child	16% (56)	16% (14)	16% (70)
4. Whereabouts of Child Unknown or Likely to be	3% (10)	6% (5)	4% (15)
5. Not Sufficient Supervision of Child	17% (58)	42% (36)	22% (94)
6. Unable to Meet Child's Medical Needs	8% (26)	11% (9)	8% (35)
7. Parent/Caretaker has Caused Previous Harm	23% (78)	27% (23)	24% (101)
8. Child Fearful of Parent/Caretaker	5% (17)	9% (8)	6% (25)
9. Parent Unable to Meet Basic Needs of Child	16% (55)	15% (13)	16% (68)
10. Suspicion of Sexual Abuse	13% (45)	6% (5)	12% (50)
11. Drug or Alcohol Abuse by Parent/Caretaker	24% (81)	36% (31)	26% (112)
12. Mental Illness/Dev. Disability of Parent	8% (29)	16% (14)	10% (43)
13. Domestic Violence	10% (34)	12% (10)	10% (44)
14. Other Factors	9% (32)	11% (9)	10% (41)

* There were 692 (61.7%) CERAP forms in which no factors were checked; 243 (21.7%) 1 factor; 106 (9.4%) 2 factors; 45 (4.0%) 3 factors; and 36 (3.2%) 4 or more factors. Therefore, the N for this table is 430.

** Percentages are based on column totals and are not meant to be additive but reflect the percentage of these factors occurring for Intact Families, Substitute Care, and the Total Number of cases.

Illinois Child Endangerment Risk Assessment Protocol

Outcome Evaluation

Year Two Follow-up

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Introduction

This report analyzes the impact of implementation of the Child Endangerment Risk Assessment Protocol (CERAP) on the safety of children investigated for child abuse and neglect. CERAP was initiated in 1994 as a response to concerns about the immediate safety of children in a home being investigated for abuse or neglect. It consists of a focused system for assessing safety, using empirically-based factors found to correlate with the risk or abuse and/or neglect, and documenting a safety plan for each child in the house. Investigative workers have been provided intensive training with the protocol and must pass a certification test proving mastery of the protocol.

Safety is assessed using data from the statewide Child Abuse and Neglect Tracking System (CANTS) database and is defined in terms of the recurrence of an indicated report of maltreatment within 60 days of an initial report. The current analysis builds upon the results of last year's report, which found a significant reduction in short-term recurrence following the CERAP safety protocol implementation. Several alternative explanations for the reduction were assessed. One way to promote safety for children is to take them into protective custody and place them outside the home. However, the reduction in recurrence found in the first year follow-up was not attributable to an increase in the use of protective custody. In addition, the first year's work tested the possibility that the reduction could have been due to policy changes also implemented in the time period when CERAP began. One involved substance-affected infants; the other involved risk of harm/inadequate supervision while in the care of a relative. Neither policy change was proven to be related to the reduction in recurrence. Each of these alternative explanations for the reduction in recurrence is tested again this year.

The first section of the report presents frequency counts of children involved in child abuse and neglect reports, and the second section presents a statistical analysis of changes in short-term maltreatment recurrence rates over the two years after implementation of CERAP.

Comparison of Service Volumes

Services are described in this study by four indicators: total children reported, children with an allegation, children indicated, and children taken into protective custody. Table I shows the counts for each indicator for the year before implementation of CERAP and the two years post-implementation. The counts are based on the latest extract of data from the CANTS database, which has a total of 552,532 records for the three years. Since implementation of CERAP occurred December 1, 1995, the years being compared differ slightly from a calendar year. The pre-implementation year includes all reports from 12/1/94 through 11/30/95; the first year post-implementation includes 12/1/95 through 11/30/96, and the second year post-implementation includes 12/1/96 through 11/30/97.

Total Children Reported: This is the number of children who are identified in investigated reports of alleged abuse. There are some reports of alleged abuse of children, such as calls to the hot line, which do not meet the criteria of suspected maltreatment and are not included in the CANTS data. Each time a child appears in an investigated report, he or she is included in the count, so individual children may be counted more than once if they are identified in more than one report. The number of children identified in reports of alleged maltreatment represents the total number of children included on the CANTS database for each year.

Children with an Allegation: The second count is the number of children reported for whom there was an alleged maltreatment. Each time a child appears in a report and is alleged to have suffered maltreatment, he or she is included in the count. This count excludes children who may have been named in a report (such as siblings or relatives) but were not alleged victims of maltreatment. For all three years, the percentage of children with an alleged maltreatment compared to the total reported ranges from 71 to 72 percent.

Children Indicated: The third count is the number of children reported for whom at least one alleged maltreatment event was found to be "indicated" (substantiated). These children are considered to be the victims of maltreatment. A child may be reported, investigated, and substantiated more than once. Initial indicated maltreatment for a

child and recurrent indicated maltreatment for a child are considered as separate events and thus a child with recurring, substantiated maltreatment will be counted more than once. Each event is considered as an indicated maltreatment for a reported child and thus is included in the count.

Protective Custody Taken: The fourth count is the number of children taken into protective custody. Once a report of maltreatment is substantiated, some children are removed from their homes and taken into protective custody by the Division of Child Protection (DCP), police, or a physician. Since a child may have been included in more than one report, he or she may have been taken into protective custody more than one time, and each instance of protective custody is included in the count.

TABLE I. THREE-YEAR TRENDS IN CHILDREN REPORTED

	1995 data year (12/94-11/95)	1996 data year (12/95-11/96)	1997 data year (12/96-11/97)
1. Total Children Reported	185,445	173,498	162,537
2. Children with an Allegation	133,861	124,207	115,541
3. Children Indicated	49,786	42,297	38,303
4. Protective Custody Taken	8,171	7,044	6,077

All counts show an overall reduction in service volume over the past three years:

- 6% decrease in the number of children reported between 1995 and 1996 *and* between 1996 and 1997
- 7% decrease in the number of children with an allegation of maltreatment between 1995 and 1996 *and* between 1996 and 1997
- 15% decrease in the number of children with an indicated allegation between 1995 and 1996, and a 9% decrease between 1996 and 1997
- 14% decrease in the number of children taken into protective custody between 1995 and 1996 *and* between 1996 and 1997

However, when the numbers of children with indicated allegations and protective custody are considered as a *proportion* of the children with allegations, the changes over time are smaller. These percentages are shown in Table II.

TABLE II. PERCENTAGE CHANGE – ALL REPORTS

	1995 data year (12/94-11/95)	1996 data year (12/95-11/96)	1997 data year (12/96-11/97)
Children Indicated/ Total Children Reported	26.8%	24.4%	23.6%
Children Indicated/ Children with Allegations	37.2%	34.1%	33.2%
Protective Custody Taken/ Children Indicated	16.4%	16.7%	15.9%

The change in these proportions over the three years are:

- 8% decrease in the proportion of children with indicated allegations to children with allegations between 1995 and 1996, and a 3% decrease between 1996 and 1997
- 2% increase in the proportion of children taken into protective custody to children with indicated allegations between 1995 and 1996, and a 5% decrease between 1996 and 1997

The decreases in children with indicated reports and of children taken into protective custody from 1995 to 1996 and 1996 to 1997 are all statistically significant at the .001 level using the Mann-Whitney U test done on monthly increments. While the increase in the number of children taken into protective custody as a percentage of children with indicated reports between 1995 and 1996 was not statistically significant, the decrease in that proportion between 1996 and 1997 was significant (Mann-Whitney U test, monthly intervals, .001 level).

Tables III and IV present the same basic counts and percentages of children reported, indicated, and taken into protective custody, but only for the first report received on each child in the time period 12/1/94 through 11/30/95. This table represents only the first report per child in this time period, not a count of all reports for all children. These first reports include all initial

investigations (which are defined as a Sequence A report in the CANTS database), as well as subsequent investigations, as long as they are the first for a child within this time period. The total number of children represented in first reports is 383,225 for the three-year period.

TABLE III. THREE-YEAR TRENDS IN FIRST REPORTS IN TIME PERIOD

	1995 data year (12/94-11/95)	1996 data year (12/95-11/96)	1997 data year (12/96-11/97)
1. Total Children Reported	141,347	112,932	100,237
2. Children with an Allegation	100,476	79,589	69,967
3. Children Indicated	35,623	25,542	21,622
4. Protective Custody Taken	5,275	3,837	3,1583

As with the overall reporting rates, the numbers of first reports received have decreased steadily, revealing the following changes:

- 20% decrease in the number of children reported between 1995 and 1996, and an 11% decrease between 1996 and 1997
- 21% decrease in the number of children with an allegation of maltreatment between 1995 and 1996, and a 12% decrease between 1996 and 1997
- 28% decrease in the number of children with an indicated allegation between 1995 and 1996, and a 15% decrease between 1996 and 1997
- 27% decrease in the number of children taken into protective custody between 1995 and 1996, and an 18% decrease between 1996 and 1997

TABLE IV. PERCENTAGE CHANGE IN FIRST REPORTS

	1995 data year (12/94-11/95)	1996 data year (12/95-11/96)	1997 data year (12/96-11/97)
Children Indicated/ Total Children Reported	25.2%	22.6%	21.6%
Children Indicated/ Children with Allegations	35.4%	32.1%	30.9%
Protective Custody Taken/ Children Indicated	14.8%	15.0%	14.6%

The changes in the proportions for first reports in the time period show:

- 9% decrease in proportion of children with indicated allegations to children with allegations between 1995 and 1996, and a 4% decrease between 1996 and 1997
- 1% increase in the proportion of children taken into protective custody to children with indicated allegations between 1995 and 1996, and a 3% decrease between 1996 and 1997

Finally, for all reports that represent both a first report received within the time period and a Sequence A initial report on a child, Tables V and VI show the same four service volumes and percentage changes:

TABLE V. THREE-YEAR TRENDS IN SEQUENCE A REPORTS

	1995 data year (12/94-11/95)	1996 data year (12/95-11/96)	1997 data year (12/96-11/97)
1. Total Children Reported	107,445	93,048	86,483
2. Children with an Allegation	76,022	65,461	60,177
3. Children Indicated	23,908	19,076	17,017
4. Protective Custody Taken	2,801	2,176	1,894

The changes in counts for Sequence A reports reveal decreases in all four indicators:

- 13.4% decrease in the number of children reported between 1995 and 1996 and a 7.1% decrease between 1996 and 1997
- 13.9% decrease in the number of children with an allegation of maltreatment between 1995 and an 8.1% decrease between 1996 and 1997
- 20.2% decrease in the number of children with an indicated allegation between 1995 and 1996, and a 10.8% decrease between 1996 and 1997
- 22.3% decrease in the number of children taken into protective custody between 1995 and 1996 and a 13.0% decrease between 1996 and 1997

TABLE VI. PERCENTAGE CHANGE IN SEQUENCE A REPORTS

	1995 data year (12/94-11/95)	1996 data year (12/95-11/96)	1997 data year (12/96-11/97)
Children Indicated/ Total Children Reported	22.3%	20.5%	19.7%
Children Indicated/ Children with Allegations	31.5%	29.1%	28.3%
Protective Custody Taken/ Children Indicated	11.7%	11.4%	11.1%

The changes in the proportions for Sequence A reports are as follows:

- 7.6% decrease in proportion of children with indicated allegations to children with allegations between 1995 and 1996, and a 2.8% decrease between 1996 and 1997
- 2.6% decrease in the proportion of children taken into protective custody to children with indicated allegations between 1995 and 1996 *and* between 1996 and 1997

The decreases in the counts of children with indicated reports and of children taken into protective custody, from 1995 to 1996 and 1996 to 1997, are all statistically significant at the .001 level using the Mann-Whitney U test done at one monthly increments. While the increase in the proportion of children taken into protective custody as a percentage of children with

indicated reports between 1995 and 1996 was not statistically significant, the decrease in that proportion between 1996 and 1997 was significant (Mann-Whitney U test, monthly intervals, .001 level). This statistically significant decrease in the proportion of cases taken into protective custody would allow more children to be vulnerable to recurrent maltreatment. It would not contribute to the decrease in recurrence found for that period.

Recurrence Analysis

Short-term recurrence rates continue to decrease over both years following implementation of the Safety Protocol. Table VII presents the recurrence rates based on the 383,225 cases in the First Reports file.

TABLE VII. RECURRENCE – FIRST REPORTS

	Total	Number Recurrent*	Crude Rate	Percent Reduction From previous yr
1995	141,347	3,851	2.7%	
1996	112,932	2.290	2.0%	25.9%
1997	100,237	1,712	1.7%	15.0%

*The number recurrent is of children with an indicated report occurring within 60 days of the first report in the time period.

First Reports was further refined by selecting only the Sequence A reports and only the cases not taken into protective custody. This file, called Sequence A Non-Protective Custody Reports and containing 279,688 child reports, is the basis of the recurrence analysis. Since the CERAP protocol targets children's safety in initial investigations, and since cases with more than one investigation start from a point of higher recurrence rates, by definition, Sequence A cases remaining in their home provide the clearest picture of the impact of the CERAP implementation.

Table VIII presents the recurrence rates based on the 279,688 cases in the Sequence A non-Protective Custody Reports file.

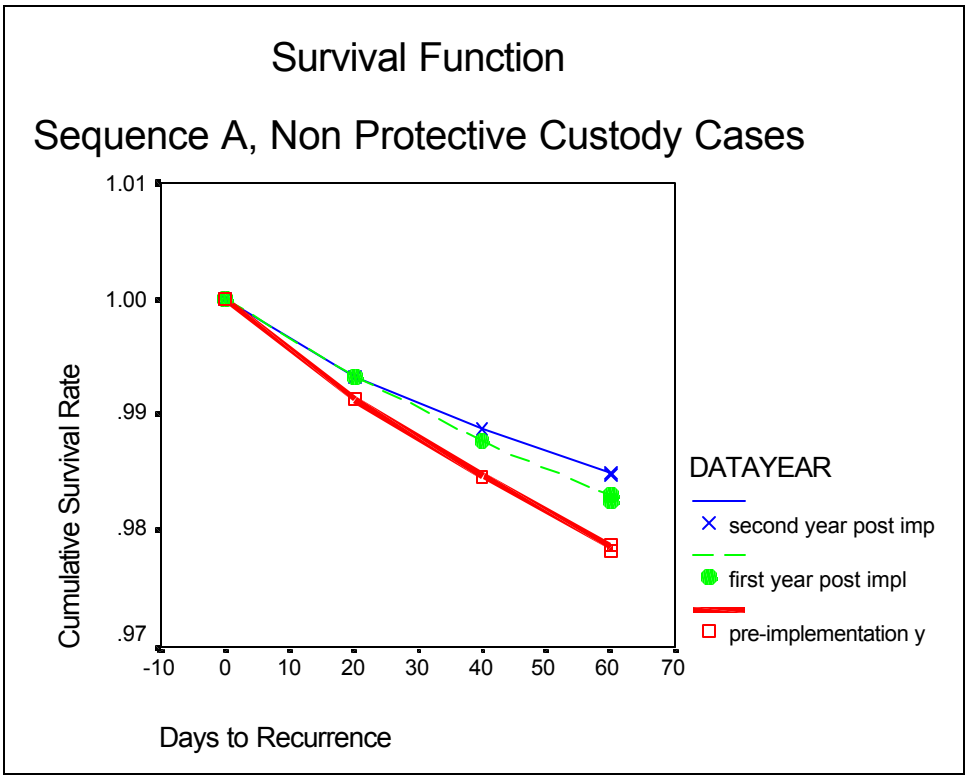
TABLE VIII. RECURRENCE – SEQUENCE A NON-PROTECTIVE CUSTODY

	Total	Number Recurrent*	Crude Rate	Percent Reduction from previous yr
1995	104,231	2,240	2.1%	
1996	90,870	1,561	1.7%	19.0%
1997	84,587	1,285	1.5%	11.8%

These data reflect small changes when compared to the same statistics reported last year. Specifically, the number of cases recurring within 60 days for 1995 has remained the same. However, the number of cases recurring within 60 days in 1996 is now higher than reported in last year's analysis. This is due to the use of a more recent data extract. Investigations opened in 1996 that were still pending as of the date of the previous data extract (March 1997) have since been classified as either Indicated or Unfounded. Thus, in addition to the 1,478 cases found to recur in last year's analysis of 1996 data, an additional 83 cases changed classification from "Pending" to "Indicated" for a new total as of March 1998.

Because of these changes, the reduction in recurrence rate from 1995 to 1996 is smaller, dropping from 23.8% to 19%. However**, the overall reduction from pre-implementation to the end of the second year post-implementation is 28.6%**. It must be kept in mind, however, that when CANTS data are extracted in the future, it is likely that some cases currently pending will be found to be indicated, and the 28.6% reduction will be similarly reduced.

The data from the three years are also compared using survival analysis, a time-series procedure that provides a continuous view of the likelihood of recurrence of a defined problem within a defined period of observation. In this case, the defined problem is an indicated maltreatment and the period of observation is 60 days. The following graph plots the survival curves (proportion of children with no recurring abuse or neglect) and provides a visual representation of the way recurrence rates have dropped over the three years.



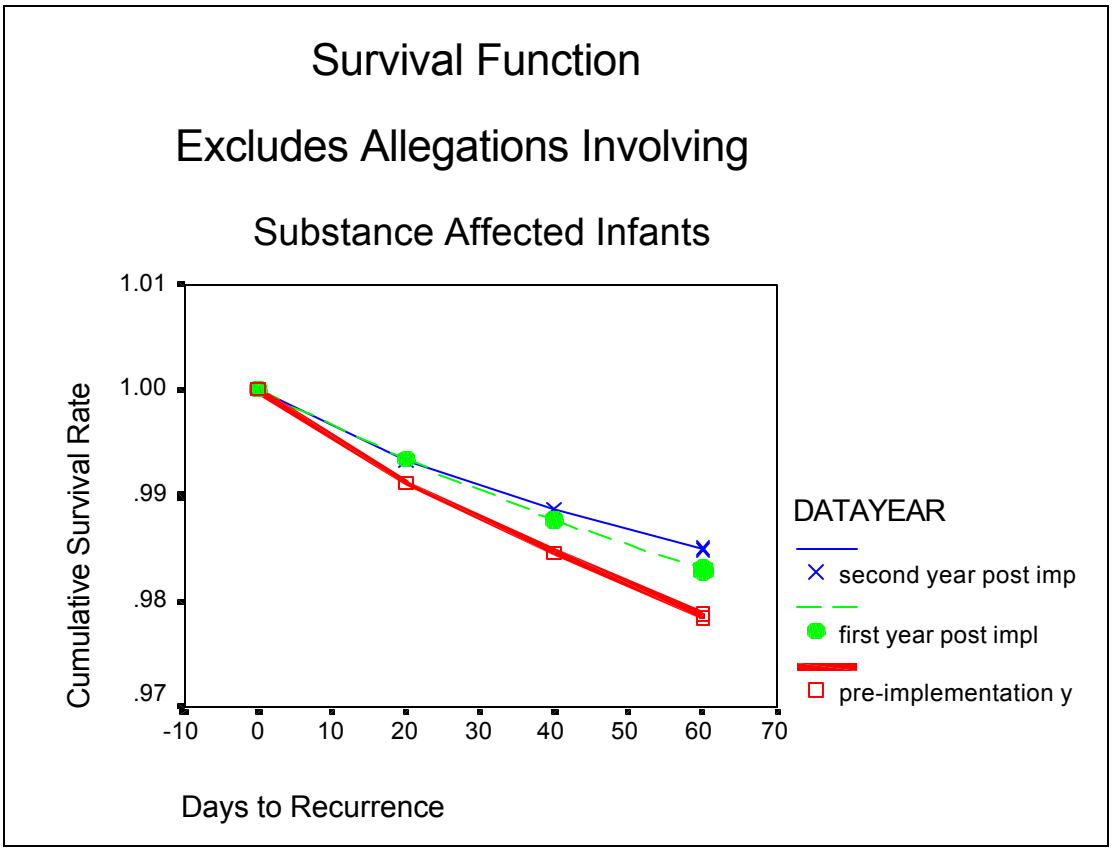
Both changes (reductions) in recurrence rates are statistically significant, using the results of the Kaplan-Meier Survival analysis:

Statistic Used	1995-1996 change, statistical significance	1996-1997 change, statistical significance
Log Rank	.0000	.0010
Breslow	.0000	.0011
Tarone-Ware	.0000	.0011

To confirm last year's finding that the reduction in short-term recurrence was not explained by policy changes involving substance-abuse affected infants or cases which had only allegations of risk of harm/inadequate supervision with a relative as caregiver, a separate analysis was done controlling for each of those possible causes. That analysis revealed very little change in recurrence rates from the primary analysis on Sequence A, Non-Protective Custody cases. These results are shown in Table IX, which excludes substance-affected infants, and in Table X, which excludes allegations of risk of harm/inadequate supervision only with relative caregivers. While the absolute numbers in Table IX change, the percentage reductions do not. In Table X, the only difference from Table VIII is the larger reduction of 22.7% rather than 19.0%, from 1995 to 1996. This reduction is due to an increase in the recurrence rate for 1995, when these cases are excluded, not a change in the recurrence rate for 1996. This difference is not significant by a chi-square statistical test. Thus, policy changes connected with those two types of allegations were not responsible for the reduction in short-term safety found.

TABLE IX. RECURRENCE – EXCLUDING ALLEGATIONS INVOLVING SUBSTANCE AFFECTED

	Total	Number Recurrent	Crude Rate	Percent Reduction from previous yr
1995	102,906	2,200	2.1%	
1996	89,831	1,528	1.7%	19%
1997	83,707	1,262	1.5%	11.8%

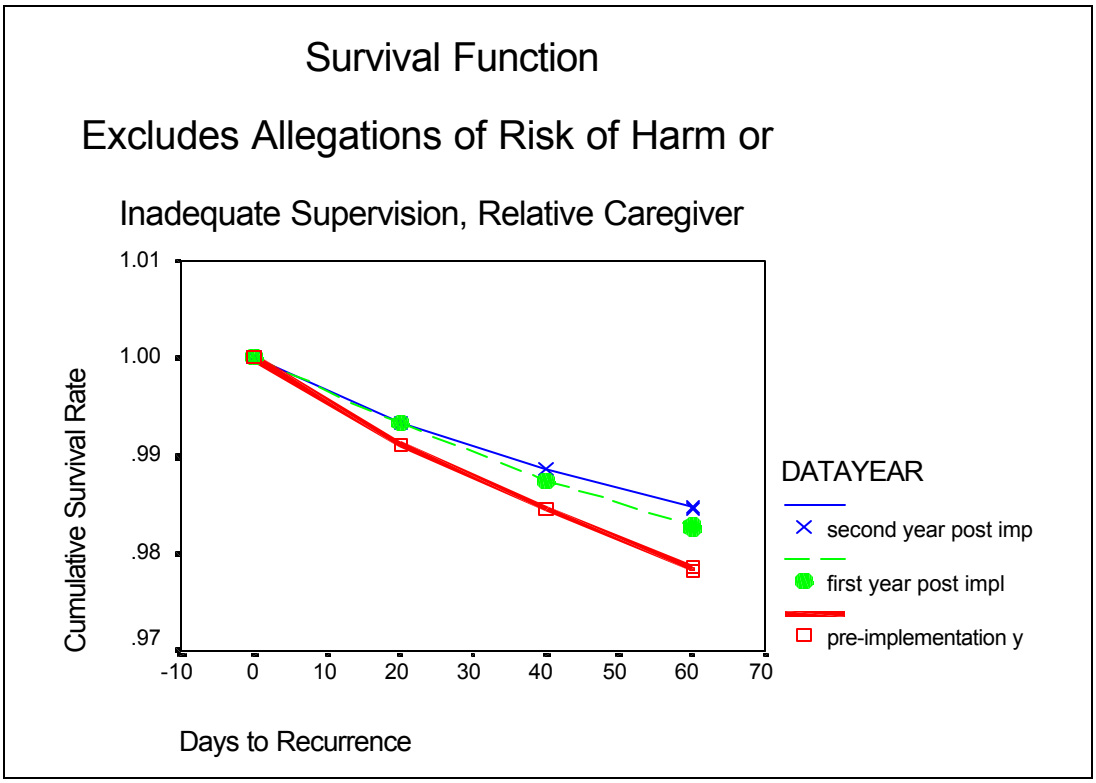


Both reductions in recurrence rates are statistically significant, using the results of the Kaplan-Meier Survival analysis:

Statistic Used	1995-1996 change, statistical significance	1996-1997 change, statistical significance
Log Rank	.0000	.0014
Breslow	.0000	.0015
Tarone-Ware	.0000	.0015

TABLE X. RECURRENCE – EXCLUDING ALLEGATIONS OF RISK OF HARM/INADEQUATE SUPERVISON WITH RELATIVE CARETAKERS

yr	Total	Number Recurrent	Crude Rate	Percent Reduction From previous
1995	101,917	2,203	2.2%	
1996	88,949	1,538	1.7%	22.7%
1997	82,565	1,263	1.5%	11.8%



Both reductions in recurrence rates are statistically significant using the results of the Kaplan-Meier Survival analysis:

Statistic Used	1995-1996 change, statistical significance	1996-1997 change, statistical significance
Log Rank	.0000	.0012
Breslow	.0000	.0013
Tarone-Ware	.0000	.0012

Summary

Results from the two-year follow-up evaluation of the CERAP Safety Protocol's impact were consistent with first year findings. Recurrence of moderate to severe maltreatment for at-risk children continued to show significant reduction two years post-implementation. Overall reduction, from pre-implementation to the end of the second year post-implementation, is 28.6%. Assessment of possible alternative explanations for the reduced recurrence rates indicated that they were unlikely to have produced the results that were found.

Illinois Child Endangerment Risk Assessment Protocol

National Child Abuse and Neglect Data System
Illinois Technical Assistance

Multi-state Comparison Analysis of Short-term Recurrence Rates for the Pre- and Post-CERAP Implementation Period

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Introduction

One possible explanation for the reduction in short term recurrence rates associated with the CERAP Safety Protocol implementation is that recurrence was in general decline throughout the United States or in other states that were similar to Illinois during the implementation period. To explore this alternative explanation, data was provided through the National Child Abuse and Neglect Data System (NCANDS) Detailed Case Data Component (DCDC) (U.S. Department of Health and Human Services, National Center on Child Abuse and Neglect, 1996). The NCANDS data system is a program of the Administration on Children, Youth and Families Children's Bureau. Details of the NCANDS DCDC data system are described elsewhere (National Center on Child Abuse and Neglect, 1997). The case level data used in this analysis were supplied by those states voluntarily participating in the DCDC, including Illinois.

Hypothesis

The basic hypothesis explored in this analysis is that rates of short-term recurrence among the comparison states are not different in the period prior to CERAP implementation when compared to the post-implementation period. A further modification of the hypothesis is that any observed change in the pre- and post-implementation recurrence rates cannot be attributed to policy and practice changes within a given state.

Methods and Limitations

At present, DCDC data are available beginning in calendar year 1994 and continuing through calendar year 1996, a time frame which is consistent with the implementation period for CERAP. For this period, eleven to fifteen states have been able to provide DCDC data. However, in order for a state to be included in the comparative analysis described here three conditions must have been met:

1. The state must have been able to provide DCDC data for each calendar year 1994, 1995, and 1996.

2. The state must have the capacity to identify the same child whenever that child appears as a new report of substantiated or indicated child maltreatment (i.e., each child is uniquely identified).
3. The encrypted, unique child identifiers provided by the participating state to the DCDC must remain consistent from year to year (e.g., the identifier from 1994 corresponds to the same child in 1996).

Of the fifteen states that have participated in the DCDC to date, seven meet the requirements for the comparative analysis: Delaware, Florida, Illinois, Louisiana, Massachusetts, New Jersey, and Vermont. For the seven states included in the analysis, children who sustained substantiated or indicated maltreatment were selected. These data were organized so that subsequent indicated or substantiated maltreatment reports for each child for the entire three year period were identified. The time between each new maltreatment report date event, if any, was calculated.

Once these data sets were assembled, additional restrictions were imposed to limit the recurrence time periods to sixty days between one new maltreatment report event and the next (the sixty day short term recurrence operational definition for child safety). Children with recurrence after sixty days or with no recurrence were considered censored, that is, they did not recur during the sixty day observation period.

DCDC data are submitted annually by participating states for the prior calendar year. The submissions are defined in relation to the calendar year of the disposition date, which generally corresponds to the date that a child protective service investigation is concluded. Consequently, reports with dates late in the calendar year may not appear in the annual submissions since the disposition dates are for the subsequent year. Therefore, the tail end of calendar year 1996 (October, November, and December) does not represent a complete census of all reports received in 1996. In contrast to 1996, since data from 1994, 1995, and 1996 are merged, the complete census for all reports made in 1994 and 1995 is available. To insure that time periods for the pre- and post-CERAP implementation are comparable in this analysis, further restrictions were applied to the report dates. Specifically, the pre-implementation period was restricted to children with report dates between December 1, 1994 and September 30, 1995. The post implementation period was restricted to December 1, 1995 through September 30, 1996.

An important limitation of DCDC data is that the report date may not correspond to the date of the actual incident. While this may lead to an inaccurate representation of the time to recurrence, the assumption made here is that such inaccuracies are random and statistically balanced from year to year; therefore, comparisons of recurrence rates are valid. Another limitation is that the specific methods employed by a state to link children across time and to track subsequent reports are different. One consequence of these differences is that the overall rates of recurrence from state to state will vary. The assumption made concerning this limitation is that each state employs the same method from year to year, and therefore recurrence comparisons within a state are valid. Both of the assumptions regarding the limitations are subject to verification, however, the verification is beyond the scope this analysis.

The specific procedure used to examine the DCDC data and test the hypothesis was the Kaplan-Meier survival technique.

Results and Discussion

Table A depicts the results of the statistical examination of the data comparing the recurrence rates before and after the CERAP implementation date. For the states of Delaware, Florida, Louisiana, Massachusetts, and Vermont, rates of short-term recurrence are not significantly different. For Illinois and New Jersey, the post implementation period exhibits lower recurrence rates.

The results from Illinois are as expected, in that short term recurrence is lower, *confirming the results found in the analysis of Illinois CANTS data.* Similarly, the states of Delaware, Florida, Louisiana, Massachusetts, and Vermont exhibit results consistent with the hypothesis *that rates would not change in the comparison states.* However, the results from the comparison state of New Jersey do not meet the hypothesized expectation.

Table A – Comparison of Reports for Nine Month Pre and Post CERAP Implementation

Pre Implementation Period: December 1, 1994 to September 30, 1995
Post Implementation Period: December 1, 1995 to September 30, 1996

Delaware –		Total	Number Events	Number Censored	Percent Censored
ANTICN01	1.00	3310	26	3284	99.21
FLG12195	Pre Implementation Period	1566	13	1553	99.17
FLG12195	Post Implementation Period	1744	13	1731	99.25
Tarone-Ware Statistic and (Significance) 0.08 (0.7801)					

Florida -		Total	Number Events	Number Censored	Percent Censored
ANTICN01	1.00	86297	1954	84343	97.73
FLG12195	Pre Implementation Period	44029	1035	42994	97.65
FLG12195	Post Implementation Period	42268	919	41349	97.83
Tarone-Ware Statistic and (Significance) 2.984 (0.0841)					

Illinois –		Total	Number Events	Number Censored	Percent Censored
ANTICN01	1.00	53366	2954	50412	94.46
FLG12195	Pre Implementation Period	29097	1669	27428	94.26
FLG12195	Post Implementation Period	24269	1285	22984	94.71
Tarone-Ware Statistic and (Significance) 4.84 (0.0279)					

Louisiana –		Total	Number Events	Number Censored	Percent Censored
ANTICN01	1.00	14358	483	13875	96.64
FLG12195	Pre Implementation Period	7812	263	7549	96.63
FLG12195	Post Implementation Period	6546	220	6326	96.64
Tarone-Ware Statistic and (Significance) 0.00 (0.9743)					

Massachusetts -		Total	Number Events	Number Censored	Percent Censored
ANTICN01	1.00	29962	3562	26400	88.11
FLG12195	Pre Implementation Period	15072	1809	13263	88.00
FLG12195	Post Implementation Period	14890	1753	13137	88.23
Tarone-Ware Statistic and (Significance) 0.25 (0.6143)					

New Jersey –		Total	Number Events	Number Censored	Percent Censored
ANTICN01	1.00	54160	3068	51092	94.34
FLG12195	Pre Implementation Period	28318	1758	26560	93.79
FLG12195	Post Implementation Period	25842	1310	24532	94.93
Tarone-Ware Statistic and (Significance) 34.49 (0.0000)					

Vermont -		Total	Number Events	Number Censored	Percent Censored
ANTICN01	1.00	1486	57	1429	96.16
FLG12195	Pre Implementation Period	785	37	748	95.29
FLG12195	Post Implementation Period	701	20	681	97.15
Tarone-Ware Statistic and (Significance) 3.45 (0.0634)					

One possible explanation for the New Jersey findings is that the state has implemented a diversified or dual track approach to Child Protective Service (CPS) investigation/assessment within the time period of interest. While the implementation of these new practices was not coordinated and may not coincide with the implementation of CERAP, the observed change in short term recurrence may be due to changes in the data submission to NCANDS that corresponds to the calendar year. Thus, the observed change in recurrence for New Jersey may be due to the change in the calendar year.

References

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U.S. Department of Health and Human Services, National Center on Child Abuse and Neglect. (1996). Child abuse and neglect case-level data 1993: Working paper 1. (Washington, DC: U. S. Government Printing Office.

Illinois Child Endangerment Risk Assessment Protocol

A Case Control Study of Short-term Recurrence Among Intact Family Cases

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Background and Research Questions

Previous evaluation efforts concerning the Illinois Child Endangerment Risk Assessment Protocol (CERAP) have examined its reliability, implementation, and usefulness in predicting risk to children reported to DCFS as abused or neglected. Among other things, results of these evaluations have indicated that recurrence of child maltreatment during the two year period following CERAP implementation has decreased considerably. However, questions remain about the differences between families who subsequently re-abuse or neglect their children in comparison to those who don't, particularly in families where no children are placed.

These cases are important to examine in depth, not only because of the real-life consequences that occur for the children in these homes, but also because these are the cases that are viewed by the public as "system failures." The CERAP Advisory Committee wished to gain additional information about these cases and the factors, if any, that are associated with the recurrence of indicated maltreatment.

A small body of past research has been conducted on the prediction of maltreatment recurrence. One study (Johnson & L'Esperance, 1984) examined the prediction of the recurrence of physical abuse. From a sample of 120 randomly selected cases of physical abuse in Alameda County, California, they compared 55 cases of indicated physical abuse that had subsequent indicated reports of abuse within two years of the initial referral to 65 cases of indicated physical abuse with no subsequent referral within two years. Information from the case records was collected on 105 possible correlates of re-abuse; of these factors, five were accurate in distinguishing those cases in which re-abuse occurred from those in which it did not. The correlates predicting recurrence included the five factors listed below:

1) Amount of time the abused child spends with the abusing adult (access to the child)
2) Mother figure's parenting skill in terms of physical care of the child and affect towards the child
3) Reasonableness of the caretaker's expectations of the abused child
4) Family's ability to use agency resources
5) Presence of more than one child in the home.

Another study (Baird, 1988) examined data on over 100 variables for 550 families randomly selected from those referred to the Family Services Section of the Alaska Department

of Health and Social Services. Information was collected from the date of the referral through the following 12 months. Results of this study suggested that the factors that predicted abuse were not identical to those that predict neglect. Among the strongest predictors of recurrence of abuse were 1) prior reports of abuse, 2) prior placements, 3) number of children in the home, 4) negative social relationships, 5) number of current problems, 6) number of adults in the home, and 7) history of drug or alcohol abuse. Among the strongest predictors of neglect recurrence were 1) single parent home, 2) age of the youngest caretaker, 3) number of children in the home, 4) prior referrals, 5) prior placements, and 6) number of problems noted.

Since that early study, Baird and associates have conducted a number of analyses in different states. Due to variations among states in populations served, geography, customs, and state laws, the predictors may be somewhat different from place to place. They are now beginning to look at validating their findings to determine how well their models predict outcomes.

One of the most comprehensive studies to date (Marks & McDonald, 1989) reviewed 600 cases of abuse or neglect and determined which factors were predictive of subsequent reports of physical abuse, sexual abuse, and neglect. Among the variables predictive of the recurrence of physical abuse were age of the child, lack of supervision, access of perpetrator to the child, and number of incidents of abuse. Among the factors related to recurrence of sexual abuse were negative caretaker attitude toward intervention, unrelated adult male in the home, perpetrator living in the home, and neglect also reported. Recurrence of neglect was related to several variables, including age of the child, caretaker expectations of the child, lack of adequate housing, prior reports of neglect, and having a "dirty home." "Dirty home" is often the designation for unsafe conditions in the home, either due to health hazards or structural problems.

Prompted by the findings of these studies, the following questions guided the present study design:

- Does the CERAP identify which families are at greater risk to experience a subsequent indicated report of maltreatment within a short period of time, for example in 60 days?
- Are there other types of information about the case, such as type of abuse, number of previous indicated reports, that are associated with subsequent indicated reports?
- Do service characteristics, for example, amount of contact with caseworkers, number of services provided, influence the relationship of these variables and recurrence of maltreatment?

Methods

Research design. To examine these questions, a case control design was utilized. A case control design is often used in epidemiological research to compare healthy or control cases to "sick" cases and examine the factors that increase a person's chances of being sick. In our design, the *control group* consists of 179 intact family cases that had no indicated re-reports of maltreatment within 60 days of case opening; the *case group* consists of 171 intact family cases who had a subsequent indicated report of maltreatment within 60 days of case opening. We originally sought 200 cases in each category. For a variety of reasons, some case records were not available; therefore, the counts presented here represent 90% and 86% of each group, respectively.

Intact family cases were chosen for study because these are cases in which the Department has had some contact with the family and yet the children remain in the home environment. These children can be viewed as at high-risk for future maltreatment and, as such, are of special interest to the Department.

Sample definition and selection. Assistance in sample definition and selection was obtained from the Chapin Hall Center for Children at the University of Chicago. The sample was drawn from the CYCIS (Child and Youth Centered Information System) database, which contains information on all DCFS cases opened for services. For sample selection purposes, an intact family case was defined as one in which no children were placed outside the home within seven days of case opening. This definition was chosen because sometimes cases are opened

with the children all at home and placement is made during the investigation. These placements may not show up in the data before it is downloaded for our analysis or the placement may be planned during the investigation but not actually take place until a few days after case opening. By allowing a seven-day window, we hoped to avoid inadvertently including placement families in our study.

Based on the study definition of intact families, there were 10,851 intact family cases opened for services between August 1, 1996 and July 31, 1997. Three hundred thirty-five of these cases (approximately 3%) had an additional indicated report of maltreatment within 60 days of case opening. Case identification numbers and region and field office location information was obtained for the entire population of re-reported cases as well as a randomly selected sample of 250 intact family cases with no re-reports of maltreatment within the first 60 days after case opening. Cases in each group were oversampled to replace those that were unavailable for review.

Development of the evaluation instrument. An instrument was developed to assess several domains of interest. These domains are defined in the following manner:

- Demographic information: birthdates of parents and children, race and gender of all involved persons, type of household (e.g., single parent living alone, etc.), and public services utilized by the family
- Case characteristics: type(s) of maltreatment, types of injuries, identity of perpetrator(s), number and types of previous indicated reports, number and type of family problems and unexpected life events
- CERAP completion: time of completion, number and type of safety factors identified, family strengths and mitigating circumstances, safety decisions, and safety protection plans
- Service characteristics: number of caseworkers, frequency of contact with caseworker, and number and types of services provided
- Indicated re-reports: date of re-report, type of maltreatment, identity of perpetrator, type of injuries, and whether any children were placed outside the home following the re-report.

This instrument was piloted using intact family cases at a local DCFS field office. Inconsistencies and problems were corrected and refined until the instrument was effective. Copies of the evaluation instrument were then circulated to members of the CERAP Advisory Committee for comments and revision.

Training the case readers. Once the evaluation instrument had been developed and revised, several case readers were hired and trained in its use. These case readers all held a masters-level degree (e.g., MSW or MA) in a human service field (e.g., social work or counseling) and had some previous casework experience. Each case reader received at least 20 hours of training at a local DCFS field office using actual intact family case files. Readers were also trained regarding issues of confidentiality of the data they were collecting, and each signed a confidentiality agreement. Once adequate levels of proficiency had been reached on use of the evaluation form, each reader rated the same case file so that inter-rater agreement could be computed. Interrater agreement between readers ranged from .85 to .95 and averaged .92, which is considered excellent.

Data analysis. The focus of this report is the recurrence of maltreatment within 60 days of a prior indicated report. This is a dichotomous event that is coded as a "yes" or a "no." It should be noted that recurrence as defined for this study is not limited to a recurrence of the same type of abuse or neglect. The search for the best predictors of maltreatment recurrence was complicated by several issues. Multicollinearity of predictor items decreases the chances of any one predictor obtaining statistical significance in a multivariate analysis, which can lead to the erroneous conclusion that none of the predictors are important. The sequential process employed here to identify significant predictors reduces the chances of this occurring (see Marks & McDonald, 1989, for a complete description.) The specific steps in this process are as follows:

1) Examine the zero-order correlations between predictor variables
2) Examine the univariate relationships between predictor variables and the outcome variable using Chi-Square analyses
3) Select indicators for the multivariate analyses which maximize sample size and minimize multicollinearity (e.g., if two predictor variables are highly correlated ($r > .4$), the item with the strongest relationship with the outcome measure and the least missing data would be selected for inclusion in the multivariate analysis.)
4) Combine best predictors from each cluster to form best overall prediction model.

Results

Sample profile. The sample drawn for the present study was *not* a simple random sample of intact family cases; we oversampled the number of cases with indicated re-reports of maltreatment within 60 days of case opening (49% in our sample versus 3% in the population of intact family cases.) To account for this, frequency figures presented in the following sections were weighted (when appropriate) by the population percentages; both weighted and raw frequency figures are given, respectively. In addition, comparison of sample to population figures is presented when available.

Demographics. The largest percentage of family cases included in the study consisted of a single-parent living with children (42.2%; 38.3%), followed closely by two-parent families (27.5%; 28.6%). Other living arrangements included single parents living with their children and a significant other (11.4%; 15.0%), single parents living with their children and extended family (10%; 10.6%), two parents living with children and extended family (3.4%; 2.6%), children living with extended family (2.7%; 1.7%), and other (3.8%; 4%). Over half of the families in the study (55.8%; 54%) received some type of public assistance (e.g., food stamps, cash grants, Medicaid, etc.). The majority of the families were white (55%; 58.2%), followed by African-American (36%; 32.1%), Hispanic (9%; 8.3%), Asian (.4%; .6%), and other (.5%; 1.1%). These figures are similar to the intact family population figures, although our sample had more white families and fewer African-American families: white (47.8%), African-American (42.3%), Hispanic (8.3%), Asian (.4%), and other or unknown (1.2%). Approximately one third of the cases reviewed were located in Cook County regions (37.5%; 32%), and the remainder of the

cases was distributed among the downstate regions (central 27.5%; 32.3%, northern 24.2%; 27.7%), and southern 10.5%; 8.0%). When these figures are compared to intact family population figures (45.4% Cook County, 14.2% Northern, 28% Central, 12.4% Southern), it appears that our sample slightly underrepresents cases from Cook County and overrepresents cases from the Northern region.

Case characteristics. Neglect was the most frequent type of indicated maltreatment (45%; 46%), followed by physical abuse (21%; 23%), sexual abuse (12%; 11.8%), substance exposed infants (10.7%; 10.9%), emotional maltreatment (4.3%; 3.7%), and other types of maltreatment or endangerment (7%; 4.6%). The majority of the cases did not report any type of injuries associated with the maltreatment (74.6%; 74%), while 12% (13%) reported minor cuts or bruises, 6.7% (6.3%) reported severe bruises, 1.7% (1.4%) reported burns, 1% (1%) reported bone fractures, and 4% (4%) reported other types of injuries.

The identity of the perpetrator in most cases was the mother (60%; 60%), followed by fathers (30%; 30%), paramours (3%; 5%), siblings (3.3%; 2.3%), and others (3.7%; 3%). Most of the time it was the first indicated report for the perpetrator (73%; 62.3%). The majority of the families had multiple problems, such as physical or mental health problems, unemployment, alcohol or drug abuse, domestic violence, or criminal arrests. In fact, over half (42.5%; 51%) of the families had four or more serious family problems.

CERAP completion. The majority (59.6%) of the cases reviewed had a CERAP completed at some time for the milestone checked "within 5 working days of case assignment." The remainder of the cases (40.5%) did not have a CERAP completed for this milestone. This completion rate is much lower than that reported in earlier evaluations (see CERAP Implementation Study), which report completion rates among intact family cases for this milestone to be approximately 73%. However, when completion rates in the present sample were adjusted to reflect the effects of oversampling, our completion rates were identical to those reported in earlier reports (73%).

Of the 206 cases that had a completed CERAP checked "within 5 days of case assignment," almost all had a completed safety checklist (98.5%; 98.6%) and a safety decision (96.8%; 96.4%). Of those safety decisions, the majority were judged to be "safe" (87%; 82.6%), while 13% (17.4%) were judged "unsafe." When the caseworker finds the circumstances to be "unsafe," a safety protection plan must be developed that describes a) what actions have or will

be taken to protect each child in relation to the current safety concerns, b) who is responsible for implementing each plan component, and c) how the plan will be monitored and by whom. Of the 35 CERAPs that had a safety decision of "unsafe," twenty-nine (82.9%) described the actions to be taken to address each safety concern, twenty-eight (80%) mentioned the person(s) responsible for each plan component, fourteen (40%) described how the plan would be monitored, and twelve (34.3%) mentioned who was responsible for monitoring the plan. Finally, 178 of the 206 CERAPs (87%) were signed by both the worker and supervisor.

Of the 204 CERAPs that had a completed safety checklist, 49.5% had no safety factors checked "yes" (present), 34.3% had one safety factor checked "yes," 11.8% had two factors checked "yes," and approximately 5% had three or more factors checked "yes."

Service characteristics. Most of the families in our sample had only one caseworker during the first sixty days after case opening (83%; 80%); another 16.4% (18%) had two caseworkers during that time, and only a few (.6%; 2%) had three or more. Caseworkers met with their clients fairly frequently during the first 60 days after case opening: 9% (6.7%) met more than once a week, 19% (18.6%) met once a week, 33% (28%) met once every two weeks, 24% (23.7%) met once a month, 9% (13%) met once every two months, and 6% (9.3%) never met with their clients during the first 60 days of service. Many clients (30%; 39%) did not receive any services during the first 60 days after case opening.

Indicated re-reports of maltreatment. Of the 350 cases in the sample, 171 (48.9%) had indicated re-reports of maltreatment within 60 days after case opening. Forty-eight (28.2%) of these re-reports resulted in one or more children being placed outside the home.

Relationships among the predictor variables. The bivariate correlations among the predictor variables are shown in Table 1.

TABLE 1

CORRELATIONS AMONG THE PREDICTOR VARIABLES

	race	public assist.	single-parent house	type of abuse	injuries	identity of perpetrator	prior reports	number family probs	life events	CERAP completed	number of safety factors	safety decision	family strengths noted	number of workers in 60 days	contact with worker	total number of services	region
race	1.00	-.197**	.258**	-.190**	-.029	-.096	.050	.160*	-.079	-.003	.086	.103	.001	-.039	.011	.002	.167*
public assist		1.00	-.290**	.182**	.064	.085	-.010	-.022	.138	.023	.015	.037	-.013	.086	-.066	.096	.002
single-parent house			1.00	-.072	-.012	-.301**	-.119	.159*	-.048	-.005	-.102	.000	-.078	-.030	.044	.051	-.017
type of abuse				1.00	.352**	.053	-.167*	-.134	.100	-.054	-.103	-.040	-.004	-.019	.005	.083	-.045
injuries					1.00	-.081	-.067	-033	.086	-.085	-.065	-.057	-.021	.008	-.001	-.021	-.015
identity of perpetrator						1.00	-.031	-.173**	.043	-.008	.028	.022	-.035	-.028	.054	-.044	-.060
prior reports							1.00	.221**	-.108	-.071	.017	.072	.137	.030	-.081	-.005	.115
number of family probs								1.00	-.003	.030	.104	.136	.172	.031	-.142*	.141*	.177**
life events									1.00	.034	.071	.015	.012	-.140*	-.046	.127	.056
CERAP completed										1.00	a	a	a	-.028	-.259**	.110	.061
number of safety factors											1.00	.361**	.338**	-.098	.093	.045	.001
safety decision												1.00	.256**	-.048	.145	-.064	.046
family strengths noted													1.00	-.041	.015	.009	.222**
number of workers in 60 days														1.00	-.047	.047	-.283**
contact with worker															1.00	-.305**	-.166*
total number of services																1.00	.060
region																	1.00

*p < .01

**p < .001

a = cannot be computed because at least one of the variables is a constant

Factors associated with short-term recurrence of maltreatment. The association between each predictor variable and the occurrence of indicated re-reports was examined using Chi-Square tests (see Table 2). Results of these analyses reveal that nine of the seventeen predictor variables were significantly related to recurrence of maltreatment: DCFS region, prior indicated reports on the perpetrator, number of family problems, CERAP completion, number of safety factors checked "yes," safety decision, family strengths noted, frequency of contact with caseworker, and total number of services given during the first 60 days after case opening.

Logistic regression analyses. A maximum likelihood logistic regression was used to calculate the relative and cumulative impact of each variable with maltreatment recurrence. All the variables and interactions that were significant at the $p < .05$ level were put into the initial model; stepwise analyses were then utilized to eliminate those variables that did not significantly add to the amount of variance explained by the model. Using this procedure, the final logistic model indicated that only four variables uniquely added to the prediction of maltreatment recurrence: CERAP completion, prior indicated reports on the perpetrator, services provided during the first 60 days after case opening, and number of family problems (see Table 3). However, even the combined total of these variables in the final model explained only a small part (approximately 25%) of the variance in the recurrence of maltreatment.

TABLE 2
UNIVARIATE RELATIONSHIPS BETWEEN PREDICTOR VARIABLES AND INDICATED RE-REPORTS OF MALTREATMENT

PREDICTOR VARIABLE	X^2	df	p
1. Demographic variables			
race	**6.201**	**4**	**.185**
public assistance	**1.963**	**1**	**.161**
single parent home	**3.396**	**1**	**.065**
region	**12.505**	**5**	**.028***
2. Case characteristics			
type of abuse	**6.957**	**5**	**.224**
injuries involved	**.916**	**1**	**.338**
perpetrator identity	**6.782**	**4**	**.148**
prior reports on perp	**13.154**	**1**	**.000*****
number of family problems	**13.960**	**6**	**.030***
unexpected life events	**.147**	**1**	**.701**
3. CERAP completion			
CERAP completed	**23.680**	**1**	**.000*****
safety decision	**6.768**	**1**	**.009****
# safety factors checked yes	**27.000**	**3**	**.000*****
family strengths noted	**1.924**	**1**	**.165**
4. Service characteristics			
number of caseworkers	**1.280**	**2**	**.527**
amount of contact with worker	**17.493**	**5**	**.004****
services given	**11.838**	**1**	**.001****

*p<.05
**p<.01
***p<.001

TABLE 3
LOGISITIC REGRESSION MODEL FOR PREDICTION OF RECURRENCE

VARIABLE	BETA	p
No CERAP completion	1.36	.000
Prior report on perpetrator	.88	.000
More than 4 family problems	.83	.000
No services provided	.66	.007

Odds Ratios. For those variables that were significantly related to the recurrence of maltreatment, adjusted odds ratios were calculated to estimate the relative odds of maltreatment recurrence in the presence of each variable when all of the other significant variables are held constant (e.g., Runyan et al., 1982). The results of these analyses are presented in the table below.

TABLE 4
ESTIMATED RISK OF MALTREATMENT RECURRENCE
IN THE PRESENCE OF SPECIFIC VARIABLES

VARIABLE	ADJUSTED ODDS RATIO	95% CI
No CERAP completion for "within 5 days of case assignment" milestone	3.92	(2.40, 6.40)
Prior report on perpetrator	2.42	(1.37, 3.94)
More than 4 family problems	2.29	(1.41, 3.71)
No services provided during first 60 days after case opening	1.94	(1.20, 3.15)

These results indicate that cases in which no CERAP was completed for the "within 5 working days of case assignment" milestone were approximately four times more likely to have a subsequent indicated report of maltreatment within 60 days than were cases in which a CERAP

was completed for that milestone. Cases in which the perpetrator had prior indicated reports with the Department were approximately two and a half times more likely to have a subsequent indicated report than were cases in which it was the perpetrator's first indicated report. Multi-problem families (i.e., those with more than four identified problems) were over two times more likely to be re-reported within 60 days, as were families who received no services within the first 60 days after their case was opened.

Discussion and Conclusions

Although subject to certain limitations, the findings of the present study suggest answers to the research questions posed in the introduction. Each question will be explored in turn, along with the limitations of the current study and suggestions for future research.

CERAP completion and maltreatment recurrence. Analyses revealed that cases in which there is no CERAP completed for the "within 5 days of case assignment" milestone are at higher risk for subsequent indicated reports within 60 days than those that have a CERAP completed for this milestone. Although certain sections of the CERAP, such as the safety decision or number of individual safety factors that were checked "yes," were individually correlated with subsequent reports, they did not uniquely predict re-reports when entered into a logistic regression model.

It is not entirely clear why the presence of a CERAP is associated with lower risk of subsequent maltreatment. It may be that the process of completing the CERAP Safety Determination Form encourages caseworkers to think about their clients' needs and goals, which leads to more appropriate service delivery. Indeed, exploratory analyses revealed that cases in which the worker had completed the CERAP had more frequent contact with the caseworker and received more services in the first 60 days. However, there could be multiple reasons why a worker did not complete a CERAP that may also affect client contact and the number of services provided (e.g., the worker might be unable to locate the family, or they may refuse contact, etc.). Unfortunately, the method used in the current study (i.e., case record review) cannot provide a definitive answer to the question of *why* many case records contained no CERAP for the "within five working days of case assignment" milestone or why completing the CERAP seemed to provide a measure of protection against subsequent indicated reports. Follow-up analyses revealed that there appeared to be regional differences in CERAP completion and that workers who had more contact with their clients were more likely to complete a CERAP as well.

Variables such as client race, type of maltreatment, presence of injuries, or presence of previous indicated reports on the perpetrator did *not* predict CERAP completion. Future research may want to explore worker reasons for completing the CERAP at different milestones.

Case characteristics and maltreatment recurrence. Analyses revealed that certain factors that have been found to be associated with recurrence of maltreatment, such as type of abuse or injuries, were not significantly associated with recurrence in this study. However, one should keep in mind that the types of maltreatment that have been indicated among intact families and the types of injuries that occur from this maltreatment tend to be less severe than those experienced by the entire population of families served by the Department. This limited range of types of abuse and injuries may explain why these variables were not closely associated with subsequent indicated reports.

Another variable that has been associated with subsequent maltreatment is the presence of previous indicated reports. As in previous research, prior indicated reports of maltreatment on a perpetrator predicted short-term maltreatment recurrence. Although not surprising, this robust finding suggests that families with a prior history of maltreatment with the Department are especially at-risk for future maltreatment and should be given high priority for services.

An additional variable that significantly predicted maltreatment recurrence was a high number of family problems (e.g., four or more). This seems to indicate that multi-problem families are especially vulnerable to subsequent indicated reports of maltreatment and that special efforts by the Department should be made to identify and intervene with these families early in the service plan.

Service characteristics and maltreatment recurrence. Analyses revealed that families provided with no services during the first 60 days after case opening were significantly more likely to be re-reported than families who had at least one service provided during that time. Although not surprising, this result underscores the importance of prompt and appropriate service delivery when intervening with these families.

In sum, although the results of this study highlight the importance of risk assessment and service delivery in preventing recurrence of maltreatment, it is quite important to remember that prediction of recurrence is difficult; and even with the best tools and information, it is unlikely that caseworkers will be able to identify every family that is re-reported for maltreatment. More

realistic goals, perhaps, then become the identification of those families most at-risk for recurrence and targeted delivery of intensive services to these families.

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