

CHILDREN AND FAMILY RESEARCH CENTER

Outcome Evaluation

CERAP Safety Assessment Technical Report April, 1997

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Illinois Child Endangerment Risk Assessment Protocol Evaluation: Impact of Implementation on Short-Term Child Maltreatment Recurrence

The implementation of the Safety Assessment component of the Child Endangerment Risk Assessment Protocol (CERAP) occurred on December 1, 1995. By that date, all Department of Children and Family Services (DCFS) workers and private providers had been trained in the use of the protocol and over 99% had been successfully certified. On December 1, 1995, DCFS and provider staff were to begin using the CERAP instrument in accordance with Safety Assessment policy milestones.

The impact of the implementation is considered in terms of recurrence of child maltreatment. Child Safety assessment addresses circumstances that would lead to immediate, moderate, or severe maltreatment. In the event that safety of a child is a concern, DCFS staff are to devise and implement a safety plan which will prevent any further harm. An event of maltreatment in the future is, for this report, called recurrence.

One way to evaluate the effectiveness of the CERAP protocol is to compare the overall performance of the system of DCFS child protection from the time prior to CERAP implementation with its performance after implementation. These two periods in time are called the "pre-implementation" period and the "post-implementation" period. There are several ways to make comparisons between the pre-implementation and the post-implementation periods. For example, one type of comparison is the use of protective custody. Taking protective custody is a way to keep a child safe. If protective custody levels are found to be higher after implementation compared to before, then it may be due to worker decisions that have changed because of the CERAP protocol. However, the most important pre/post comparison is the rate of immediate, moderate or severe recurrence since this is how safety is defined. The report describes the pre- and post-CERAP implementation performance of the DCFS protective service system.

Objective

To compare the rate of recurrence of child maltreatment within a short period of time (e.g., sixty days) of a report of alleged maltreatment before the implementation of the Child Endangerment Protocol, and the rate of recurrence after the implementation.

Ultimately, the goal of the CERAP protocol is to influence the overall behavior of the DCFS service delivery system towards increased safety for children. Consequently, looking for evidence of a significant change in service delivery outcomes, such as an overall change in recurrence rates, is a necessary aspect of the evaluation. Alternative explanations are identified and can be addressed by the data:

1. Perhaps there was an increase in protective custody which removed children from their homes.
2. Perhaps there was a change in policy which decreased the number of substance-affected infants who had a recurrent indicated allegation.
3. Perhaps there was a change in policy which decreased the number of children at risk of serious harm or who had inadequate supervision while in the care of a parent or relative who had a recurrent indicated allegation.

The following set of questions has guided the impact analysis:

- ~~✍~~ Have the levels of moderate or severe recurrence been reduced after the implementation of CERAP?
- ~~✍~~ Are there changes in the levels of utilization of protective custody after CERAP implementation?
- ~~✍~~ What other DCFS policy changes may have impacted rates of recurrence?

Impact Study Methods

The approach employed in this study was to use data from the DCFS Child Abuse and Neglect Tracking System (CANTS). The CANTS data set contains detailed, case-level data on close to 400,000 children identified in reports of alleged maltreatment. Since many of these children are reported more than once, the data includes information concerning maltreatment recurrence. The data were obtained for all children reported between October 1, 1994 and November 30, 1996.

The large number of child records is one reason for using CANTS data. The main variable, immediate recurrence, is rare. Overall rates of recurrence tend to be in the neighborhood of 15 to 20 percent after a year between the initial report and the recurrence. For the shorter time periods related to safety, levels of around 4 to 5 percent recurrence are on the high end of usual observations. In addition, levels of recurrence decrease as more stringent definitional criteria are applied. Consequently, in order to conduct meaningful analysis of the data, a very large number of records are necessary. Another reason for using the CANTS data is that over the years it has proved to be a very

reliable source of child maltreatment data. Initial report tracking and entry to the system is managed centrally via the hot-line, and record reviews of CANTS forms submitted for entry to the data system have been of good quality. The high quality of the CANTS data is best described by the completeness of the information requested and the thoroughness of identity checks.

Most of the report's analyses focus only on children who are the subject of first incidents of maltreatment. For some of the analyses presented in the report, the entire set of children was included.

The CANTS data were analyzed in two ways:

Overall Services Levels: These were compared from the pre-implementation and post-implementation period. They were examined as bi-monthly trends and in total for the twelve month pre- and post-implementation periods.

Recurrence: For study purposes, recurrence was defined as a subsequent indicated maltreatment following an initial report of alleged maltreatment. An important refinement of this definition is that to meet the safety threshold for recurrence of immediate future harm, a child had to have a subsequent indicated maltreatment within 60 days of the initial report.

Study Results

Comparison of Service Volumes

The CANTS data were obtained for the period October 1, 1994, through November 30, 1996. These data are described by four counts which reflect increased involvement in the child protection and child welfare systems in Illinois.

The first count is the number of children who are identified in investigated reports of alleged abuse. There are reports of alleged abuse of children, such as calls to the hot line, which do not meet the criteria of suspected maltreatment. These cases are not included in the CANTS data. Each time a child appears in an investigated report, he or she is included in the count. The number of children identified in reports of alleged maltreatment represents the total number of children included on the CANTS database.

The second count is the number of reported children 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. The data obtained for the study were extracted three months after the end of November 1996. We believe the data available to the study are materially complete.

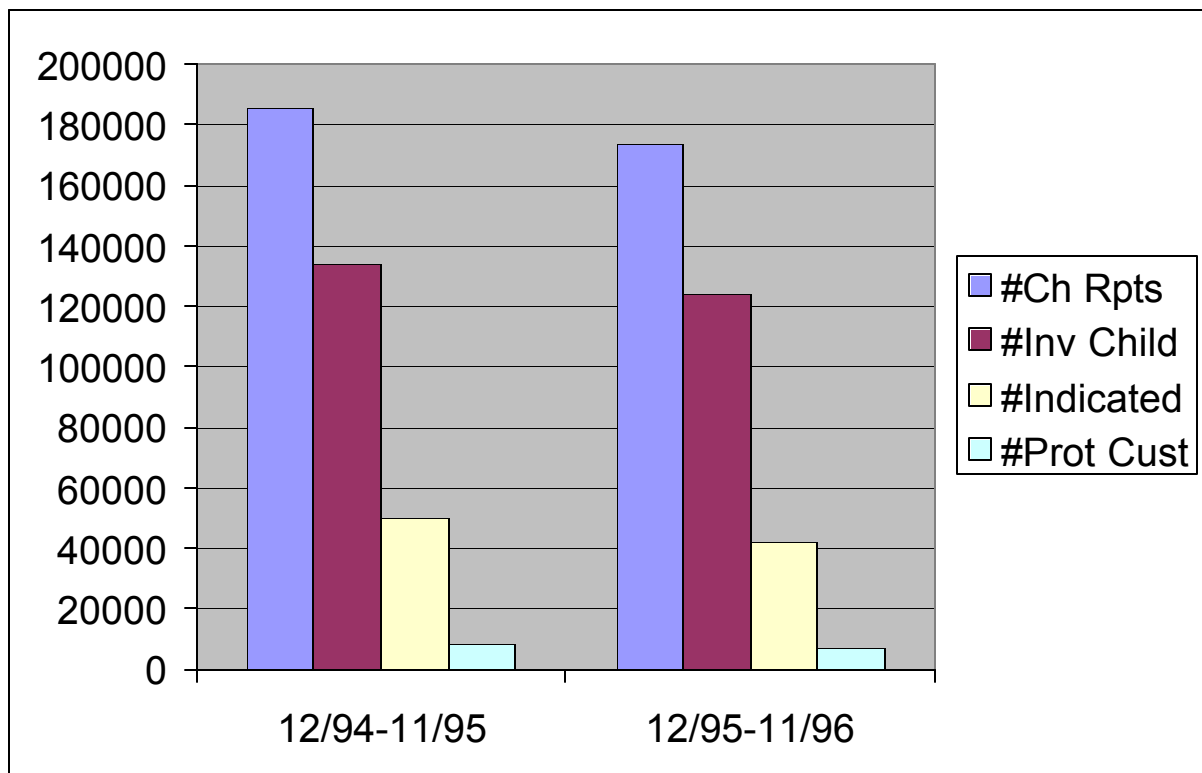
The third count is the number of reported children for whom at least one alleged maltreatment was found to be "indicated." These children are considered to be the victims of maltreatment. A child may be reported subsequently and found to be a victim a second time. This is considered to be a recurrence of maltreatment. A third or more instance of indicated maltreatment may also be considered recurrence and so on. Initial indicated maltreatments for a child and recurrent indicated maltreatment for a child are considered

as separate events. Each event is considered as an indicated maltreatment for a reported child and, so, is included in the count.

Once a report of maltreatment is substantiated, some children are taken into protective custody by the Division of Child Protection (DCP), police, or a physician. These children have been removed from their homes. 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. Each instance of protective custody was included in the count.

All child reports obtained from the CANTS database for a two-year period are included in Figure 1.

Figure 1



The first twelve-month period immediately precedes the implementation of the CERAP Safety Protocol on December 1, 1995, and the second twelve-month period immediately follows it. These data show:

~~///~~ A 6% decrease in the number of children included in the report periods.

~~///~~ A 7% decrease in the number of children for whom these were allegations of maltreatment.

~~///~~ A 15% decrease in the number of children for whom there was at least one maltreatment found to be indicated.

~~///~~ A 14% decrease in the number of children for whom protective custody was taken.

These decreases mirror national trends which have been occurring.¹

A concern about the implementation of the Safety Protocol has been that there would be an increase in the number of children removed from their homes. This has not occurred.

¹U.S. Department of Health and Human Services, National Center on Child abuse and Neglect *Child Maltreatment 1994: Reports from the States to the National Center on Child Abuse and Neglect* (Washington, D.C.: U.S. Government Printing Office, 1996).

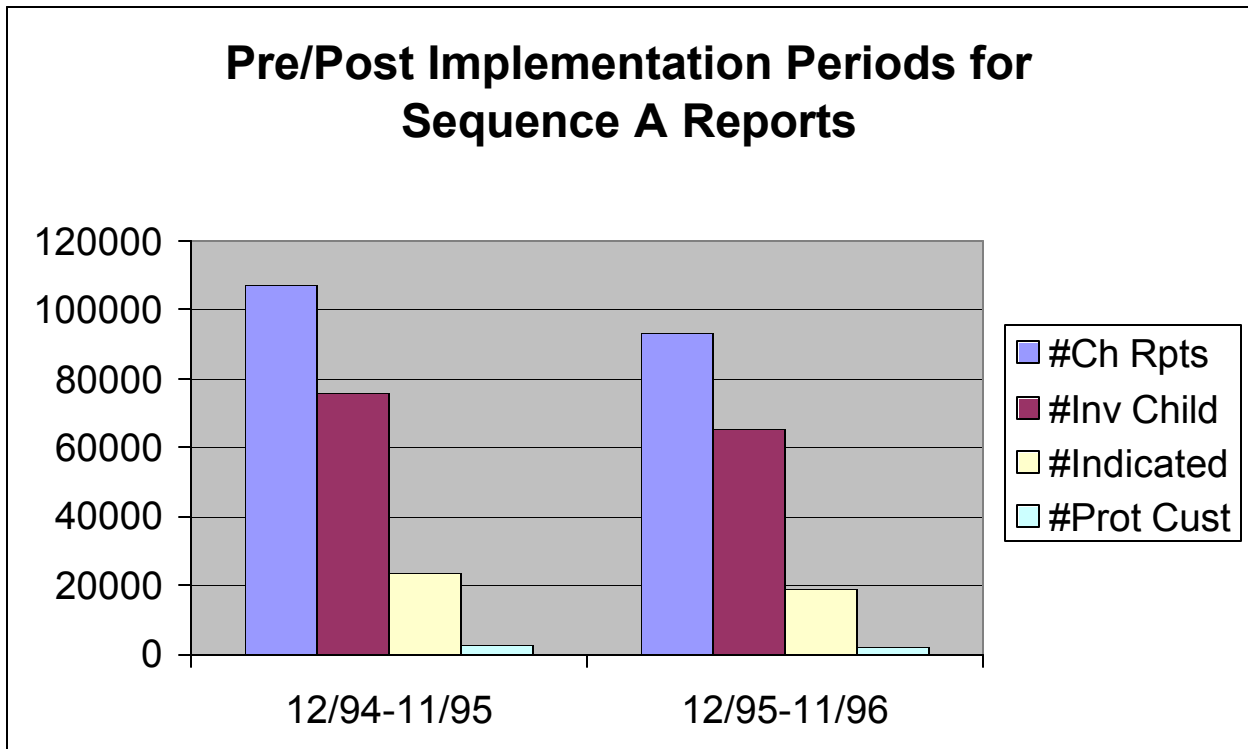
Figure 1 data are also presented in Appendix A. In the Appendix, they are presented as two- month periods which portray the gradual decrease on the four counts over time. A statistical test of the protective custody counts indicates there was, in fact, a significant decrease in the number of children taken into protective custody.² **When protective custody cases are examined as a percentage of indicated children, there is no significant difference between the period prior to safety implementation and the period following.**³

Figure 2 presents the counts for only those cases which were an initial report on a child. These cases are of interest because the evaluation of the CERAP Safety Protocol is based on them. The time periods within the years represented by the bars of Figure 2 are presented in Appendix B. Statistical analysis of the data for initial child reports portray the same results as for all reports.⁴

²Mann- Whitney U Test (between six periods, December 1994 through November 1995, and six periods, December 1995 through November 1996), p = .008.

³Mann- Whitney U Test. (between six periods, December 1994 through November 1995, and six periods, December 1995 through November 1996), p = .350.

Figure 2



Recurrence Analysis

The CPS outcome that safety assessment is intended to reduce is the proportion of cases that have an immediate, subsequent, and indicated maltreatment.

⁴Mann-Whitney U Test of counts of protective custody before and after CERAP implementation showed significant difference, $p = .004$; Mann-Whitney U Test of proportion of indicated maltreatment cases, which had protective custody taken, showed no difference before and after CERAP implementation, $p = .120$.

The statistical procedure of the follow-up life table is used to assess the likelihood of recurrence of maltreatment within a period of observation. Often called survival analysis from the health studies in which it originated, this technique provides a continuous view of the proportion of recurring cases over a follow-up period. The technique also allows comparisons of different groups.⁵

Figure 3 presents the recurrence results for the twelve-month period prior to the December 1, 1995, implementation of the CERAP Safety Assessment Protocol and the twelve-month period after the Safety Assessment Protocol. The data periods were examined in terms of first reports and subsequent founded allegations. During the twelve months pre-implementation, there were 101,991 first reports of children and 2,240 second reports of children with an indicated allegation. This is a 2.1% recurrence rate for the pre-implementation period. During the twelve months post-implementation, there were 89,392 first reports of children and 1,478 second reports of children with an indicated allegation. This is a 1.6% recurrence rate for the post-implementation period. **These data show a 23.8% decrease in the recurrence rate. These data show a significant decrease in the rate of recurrence following the safety assessment implementation.**⁶

This analysis considered only first reports of children (Sequence A) during either the twelve-month time period immediately prior to implementation (pre-period) or the twelve-month time period immediately following implementation (post period). These cases were examined for sixty days following the initial report date. Recurrent maltreatment is defined as a subsequent reported allegation found to be indicated during that period of observation.

⁵SPSS, Inc., *SPSS Advanced Statistics 6.1*, SPSS, Inc.: Chicago, Illinois, 1994, pp 263-290.

⁶Kaplan-Meier Procedure; Log Rank, Breslow and Tarone-Ware tests all result in $p < .001$.

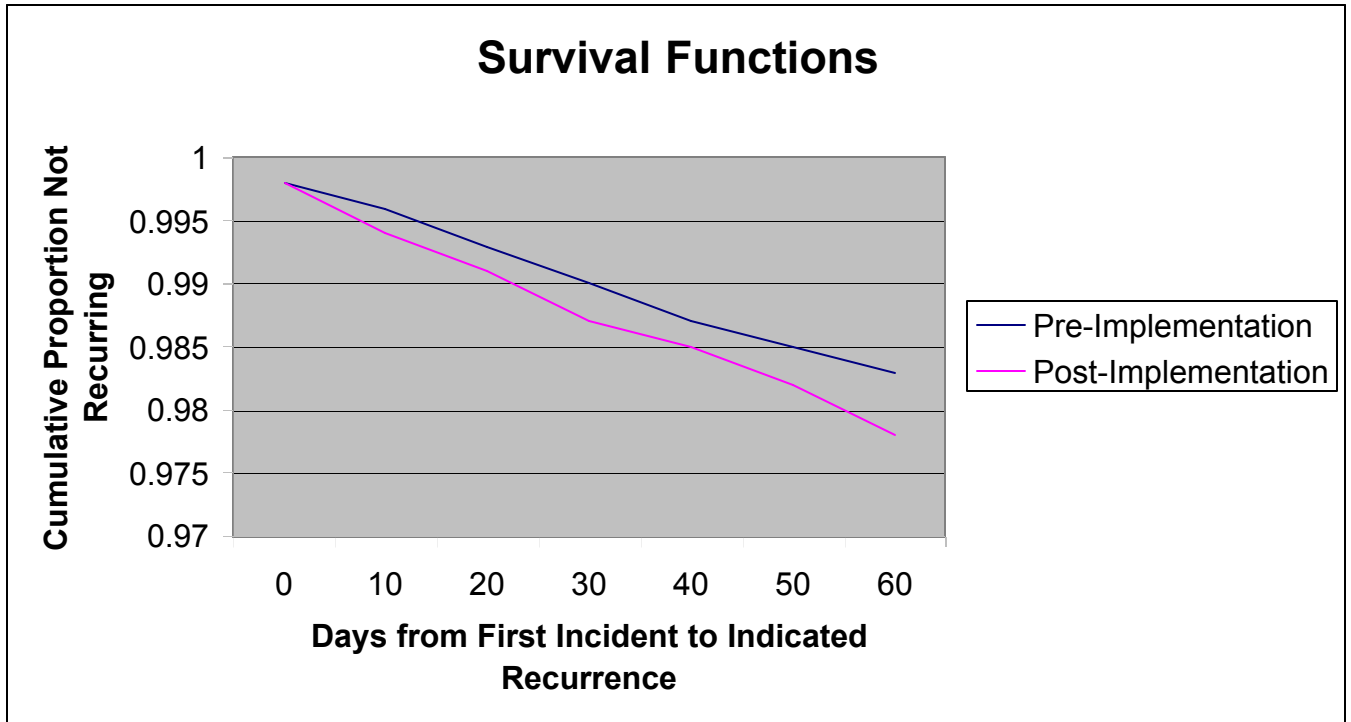
In the analysis described above, all children included in an initial report during the period of observation were included. A proportion of those children did not have an indicated maltreatment or even an alleged maltreatment. However, the instruction for the Safety Assessment Protocol was to assess all children in the household (as identified on the CANTS 1 Form). As such, all children were deemed to be at risk of recurrence, investigated, assessed for safety, and to have had a safety plan to address any unsafe conditions. This situation makes them appropriate candidates for the recurrence analysis.

Some children are assessed to be in an unsafe situation and removed from their home by being taken into protective custody. This safety plan intervention removes the child from the group for whom recurrence of maltreatment can occur. At least, maltreatment cannot be committed in the same way by the same perpetrators. This being the case, children who were taken into protective custody were excluded from the recurrence analysis.

A separate analysis was performed which excluded substance abused infants. The analysis had all the characteristics of the primary analysis described above. Substance-affected infants were defined as having indicated abusive substance misuse or neglectful substance misuse and the age of the child was less than one year. This analysis was conducted to address concerns in the handling of these cases. In other words, since the substance-affected infant policy change preceded CERAP implementation, it was hypothesized that no longer treating these cases as indicated maltreatment might have reduced recurrence. By excluding these cases from pre- and post-implementation groups and then re-running the analysis, the possible effect of substance-affected infant cases was assessed. The results of this analysis were substantially the same as the full analysis results presented earlier. There appears to be no effect on recurrence related to substance-affected infant cases.

Figure 3

Pre and Post CERAP Implementation Maltreatment Recurrence

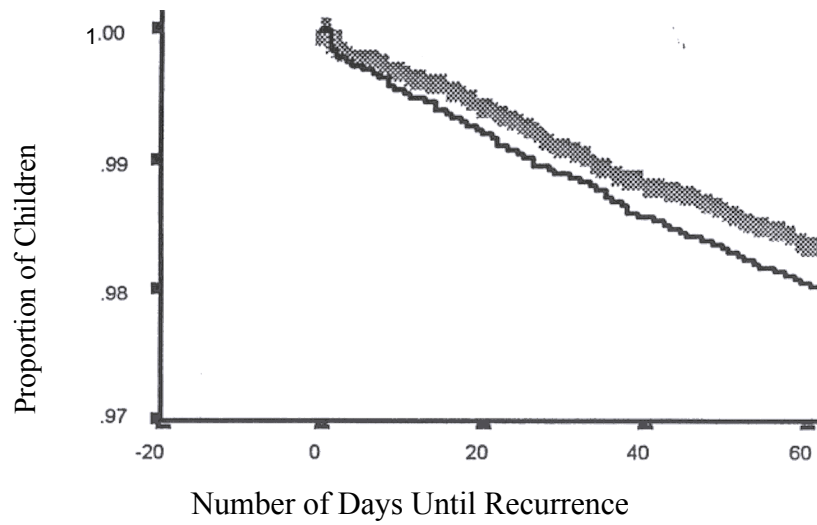


The survival analysis was also replicated excluding cases in which there was an allegation of risk of harm or of inadequate supervision and there was a parent or relative as caretaker. A graphic representation of these results is presented as Appendix 3. There was a decrease from a 1.98% short-term recurrence rate pre-implementation to a 1.69% short-term recurrence rate post-implementation for this smaller data set. This represents about a 15% improvement in recurrence rate under these stringently constrained criteria. There are significantly different sixty day survival functions for the twelve months before and the twelve months after CERAP safety assessment implementation. There appears to be no effect on recurrence related to cases in which there was an allegation of risk of harm or of inadequate supervision and there was a parent or relative as caretaker.

Summary

The recurrence of moderate to severe maltreatment for at risk children was significantly reduced following the implementation of the CERAP Safety Assessment in December 1995. There was not an increase in children taken into custody over the same period. Neither changes related to substance affected infants nor changes related to cases in which there was an allegation of risk of harm or of inadequate supervision and there was a parent or relative as caretaker accounted for the reduction in maltreatment occurrence. Overall, there was about a 25% reduction in maltreatment recurrence.

Survival Function With Cases Excluded



Difference between survival functions is statistically significant ($p < .001$)

Appendix 1

	Oct-Nov '94	Dec '94 - Jan '95	Feb-Mar '95	Apr-May '95	Jun-Jul '95	Aug-Sep '95	Oct-Nov '95	Dec '95-Jan '96	Feb-Mar '96	Apr-May '96	Jun-Jul '96	Aug-Sep '96
#Ch Rpts	31052	29774	32250	33761	29732	30487	29441	27552	29513	31041	28362	30216
#Inv Child	22408	21472	23057	24069	22220	22180	20643	19384	20529	21793	21039	22291
#Indicated	8822	8449	9069	8837	7853	7920	7658	7103	7237	7742	7160	7690
#Prot Cust	1572	1359	1518	1511	1329	1270	1181	1203	1257	1107	1108	1235

Appendix 2

	Oct-Nov '94	Dec '94 - Jan '95	Feb-Mar '95	Apr-May '95	Jun-Jul '95	Aug-Sep '95	Oct-Nov '95	Dec '95-Jan '96	Feb-Mar '96	Apr-May '96	Jun-Jul '96	Aug-Sep '96
#Ch Rpts	18608	17327	19045	19527	17345	17351	16439	15274	16278	16744	14770	15801
#Inv Child	13054	12254	13296	13684	12837	12469	11482	10568	11142	11555	10779	11480
#Indicated	4366	4173	4426	4257	3682	3731	3639	3339	3419	3578	3091	3348
#Prot Cust	544	470	540	543	423	445	382	341	428	357	335	361