CHILD WELFARE DATA ANALYTICS PROJECT FINAL REPORT

JULY 26, 2016

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DCF - NORTH HIGHLAND – SAS

MEETING AGENDA

- Extent of DCF's interaction with Florida's Children
- Analytic recommendations—the big IDEA
- Perpetrators, re-reporting, re-maltreatment and chronicity
- Predicting perpetrator chronicity
- Chronicity case study
- Additional findings

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EXTENT OF DCF INTERACTION WITH FLORIDA'S POPULATION

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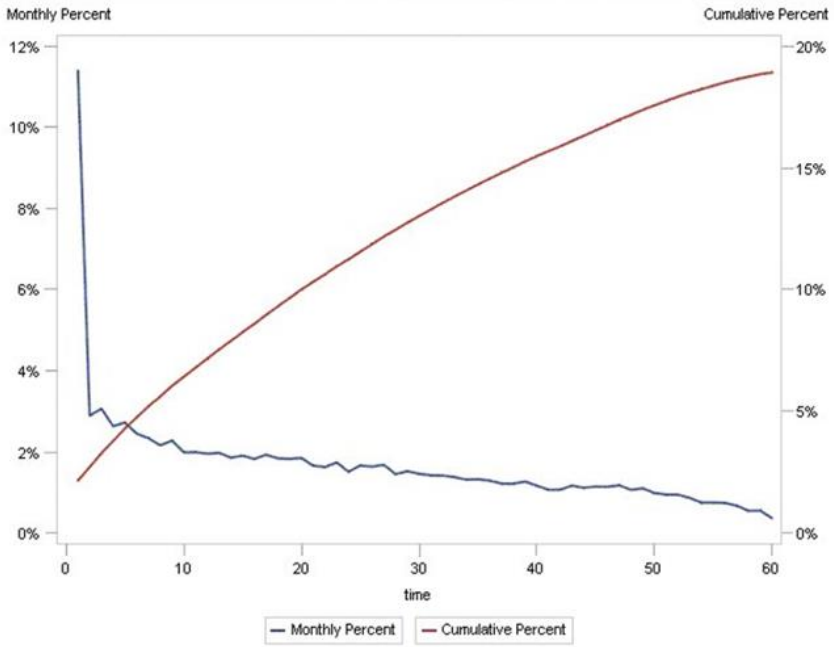
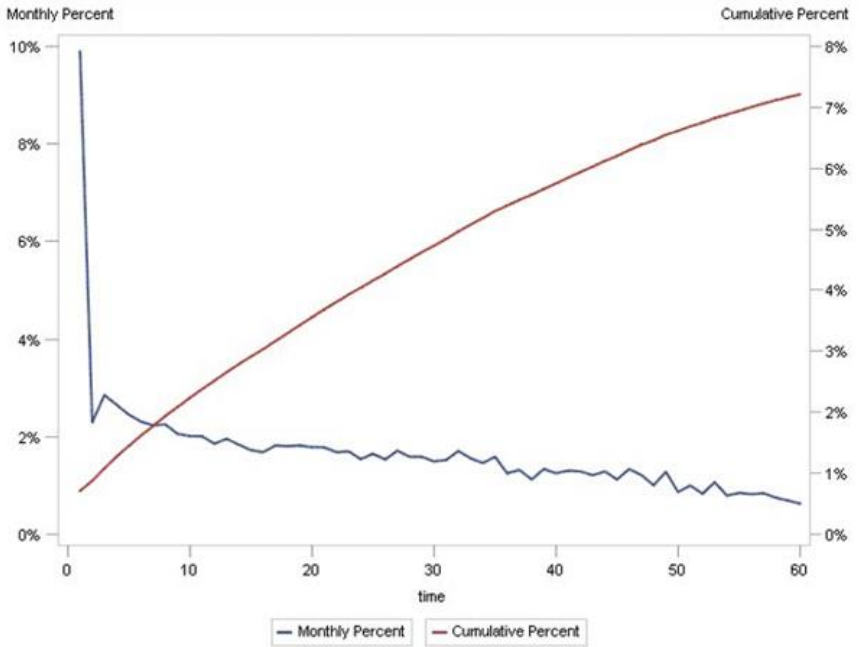
DCF REPORTS | EXTENT OF INTERACTION WITH FLORIDA POPULATION

Roughly one in every 5 children born in Florida was reported at least once to the CPS agencies, by the end of the 60th month, and approximately one in every 14 children born in Florida were reported at least once with verified maltreatment .





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ANALYTIC RECOMMENDATIONS

THE BIG IDEA

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THE BIG **IDEA**

The recommendations from the analysis can be captured by the following concepts. DCF response to a child safety report should be:

Informed	use data and analytics to better understand risk
Differential	treat cases differently depending on risk
Early	detect and treat chronic case as early as possible
At Home	provide family services and programs inside the home

The acronym IDEA can be used to conceptually organize these recommendations.

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ANALYTIC RECOMMENDATIONS

INFORMED RESPONSE

- Connect the dots with entity resolution processes
- Look at the big picture by adopting a networked and long term perspective
- Integrate data sources from multiple agencies to complete the picture
- Prioritize and understand risks with analytic models

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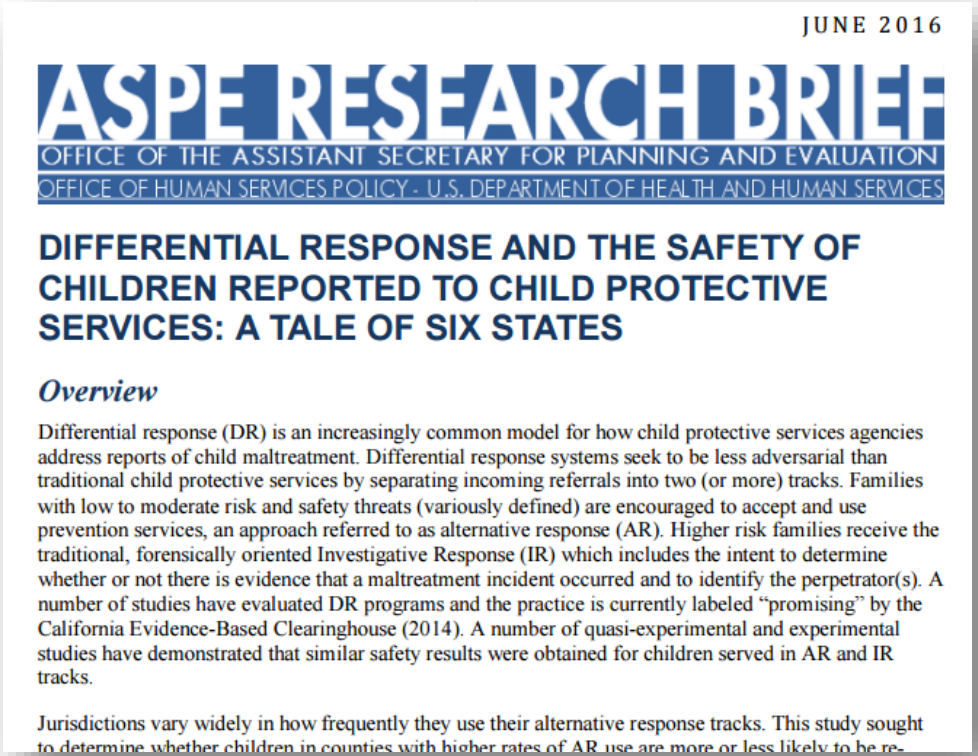
ANALYTIC RECOMMENDATIONS

DIFFERENTIAL RESPONSE



JUNE 2016

ASPE RESEARCH BRIEF

OFFICE OF THE ASSISTANT SECRETARY FOR PLANNING AND EVALUATION

OFFICE OF HUMAN SERVICES POLICY - U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES

DIFFERENTIAL RESPONSE AND THE SAFETY OF CHILDREN REPORTED TO CHILD PROTECTIVE SERVICES: A TALE OF SIX STATES

Overview

Differential response (DR) is an increasingly common model for how child protective services agencies address reports of child maltreatment. Differential response systems seek to be less adversarial than traditional child protective services by separating incoming referrals into two (or more) tracks. Families with low to moderate risk and safety threats (variously defined) are encouraged to accept and use prevention services, an approach referred to as alternative response (AR). Higher risk families receive the traditional, forensically oriented Investigative Response (IR) which includes the intent to determine whether or not there is evidence that a maltreatment incident occurred and to identify the perpetrator(s). A number of studies have evaluated DR programs and the practice is currently labeled "promising" by the California Evidence-Based Clearinghouse (2014). A number of quasi-experimental and experimental studies have demonstrated that similar safety results were obtained for children served in AR and IR tracks.

Jurisdictions vary widely in how frequently they use their alternative response tracks. This study sought to determine whether children in counties with higher rates of AR use are more or less likely to be re-

- Overall, higher rates of alternative response (AR) were associated with lower re-reports and re-reports with substantiation.
- In five of six states, higher rates of alternative response were associated with lower re-reports with substantiation, and in the remaining state there was no association between utilization and re-reports with substantiation.
- Families served in the AR track have been found to be more cooperative, realistic, motivated, and have higher self-esteem compared with families in the IR track.
- Families served in the AR track show higher levels of positive emotional response to the intervention and higher levels of satisfaction and increased use of services, suggesting increased family engagement.

[Fluke et al. 2016; Loman & Siegel, 2004 & 2013; Loman, Filonow, & Siegel, 2010; Merkel-Holguin et al, 2015; Hollinshead et al. 2015]

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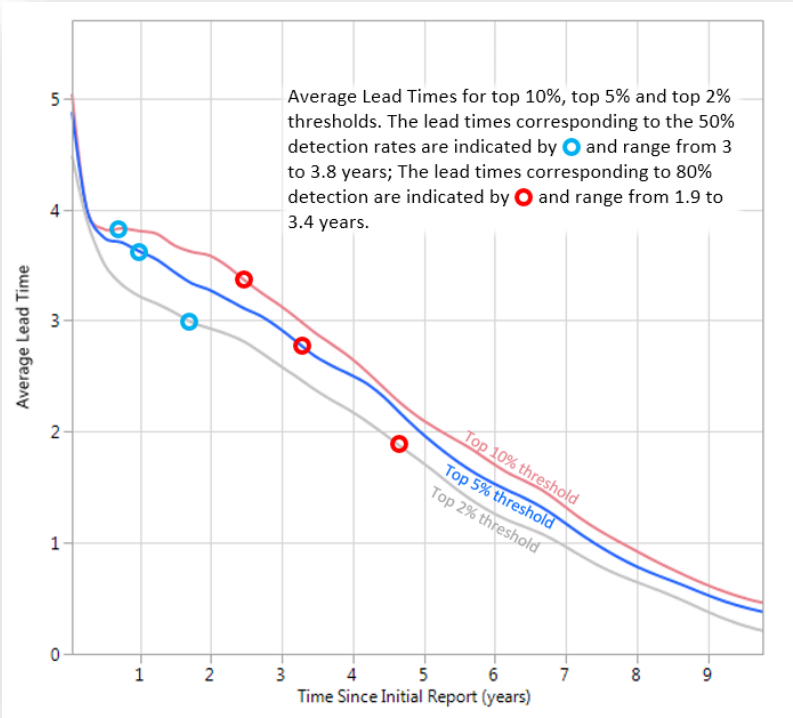
ANALYTIC RECOMMENDATIONS

EARLY RESPONSE



"Universal to the literature on intervention in maltreatment is the importance of early response. Early disruption and replacing unhealthy trends within the family prevent them from becoming entrenched and more difficult to change later…."

"Using the risk model, high-risk parents can be targeted for early intervention programs to reduce the likelihood of future maltreatment. **The chronicity risk model developed in this analysis is ideally suited for this task because it was shown to accurately identify up to 65% of high-risk perpetrators within 12 months of their initial DCF contact.**"

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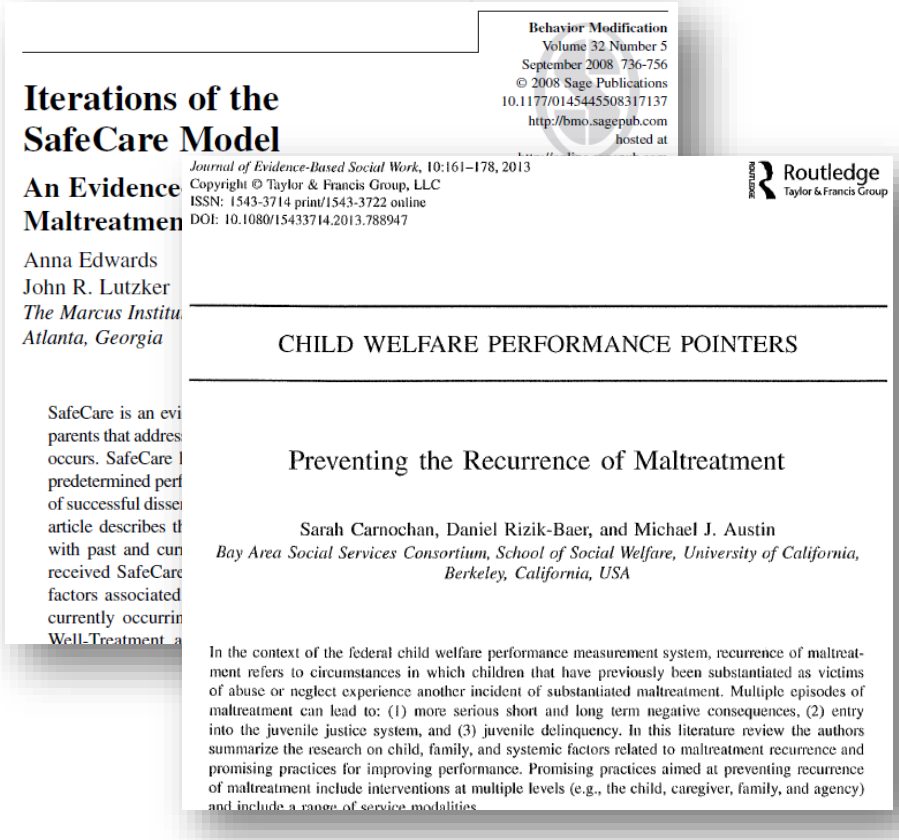
ANALYTIC RECOMMENDATIONS

AT HOME RESPONSE



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Iterations of the SafeCare Model

An Evidence
Maltreatmen

Anna Edwards
John R. Lutzker
The Marcus Institu
Atlanta, Georgia

SafeCare is an evi
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CHILD WELFARE PERFORMANCE POINTERS

Preventing the Recurrence of Maltreatment

Sarah Carnochan, Daniel Rizik-Baer, and Michael J. Austin
Bay Area Social Services Consortium, School of Social Welfare, University of California, Berkeley, California, USA

In the context of the federal child welfare performance measurement system, recurrence of maltreatment refers to circumstances in which children that have previously been substantiated as victims of abuse or neglect experience another incident of substantiated maltreatment. Multiple episodes of maltreatment can lead to: (1) more serious short and long term negative consequences, (2) entry into the juvenile justice system, and (3) juvenile delinquency. In this literature review the authors summarize the research on child, family, and systemic factors related to maltreatment recurrence and promising practices for improving performance. Promising practices aimed at preventing recurrence of maltreatment include interventions at multiple levels (e.g., the child, caregiver, family, and agency) and include a range of service modalities

"Home visiting practices such as the SafeCare program, appear to be a promising service strategy. These programs use nurses, paraprofessionals, social workers, and other social service professionals in providing family services and programs inside the home…It takes into account individual, family, and societal factors that affect maltreatment to improve parenting skills and reduce future maltreatment "

"The practice's effectiveness to reduce re-maltreatment has been established (Carnochan, et al., 2013)"

"Using risk factors identified by predictive models developed in this study, it would be possible to target certain sub-populations at high or medium risk for home visits"

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PERPETRATORS, RE-REPORTING, RE-MALTREATMENT AND CHRONICITY

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ANALYSIS FOCUS

The focus of the analysis was to identify individual caregivers and past perpetrators in the DCF population likely to reach a state of chronicity. For the analysis, the definition of chronicity was taken to be at least five reports to DCF over a 10-year timespan. With this definition, about 10% of the individuals in the cohort (28,433 out of 291,499) reached the level of chronic perpetration.

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REASONS FOR FOCUSING ON RE-PERPETRATION

- Child welfare interventions and programs generally geared to produce changes in the behavior of the perpetrator
- Recidivism is not confined to maltreatment of the same children in a family or household.
- Perpetrators return to the child welfare system at a high rate suggesting and since the recurrence of maltreatment is a long-term phenomenon.
- Selecting perpetrator as the unit analysis enables the models to predict the recurrence of maltreatment more effectively by integrating intergenerational abuse directly to the model as a covariate of the perpetrator.
- Finally, preliminary data analysis showed that, chronic maltreatment is more closely associated with a perpetrator rather than a victim.

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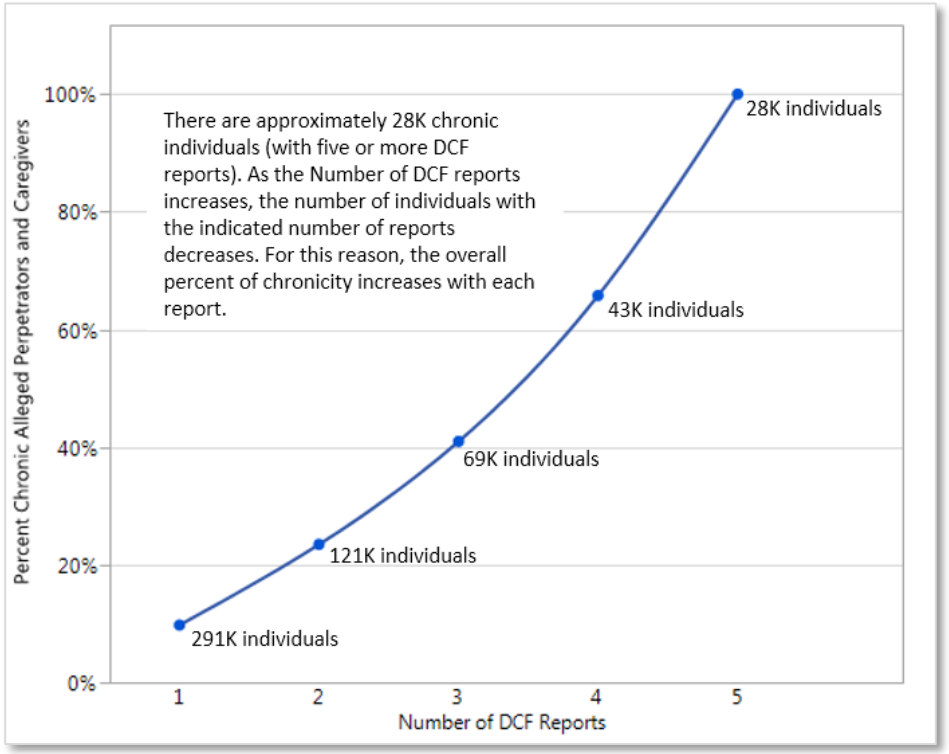
PATH TO CHRONICITY



42% (121K) of perpetrators were reported multiple times over the 8 to10 years follow-up period. Roughly, 10% of the study cohort of 291,499 perpetrators had 5 or more reports. After each report the fraction reaching chronicity increased.

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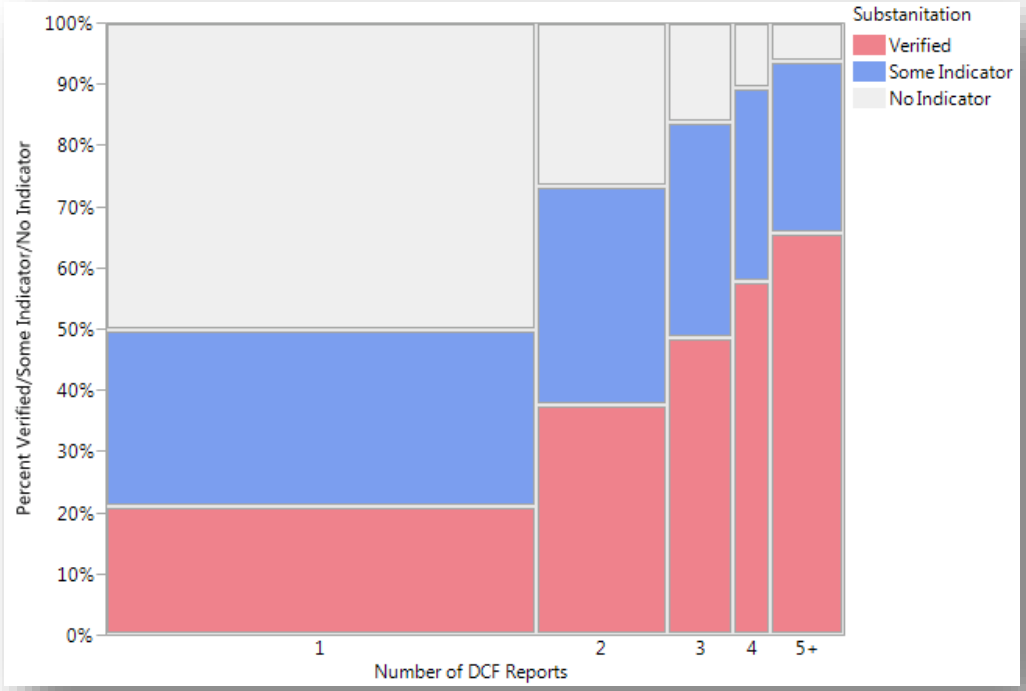
RE-REPORTING AND VERIFICATION

CHRONICITY IMPLIES VERIFICATION



By the 5th report, almost 2/3rd of perpetrators were substantiated (verified) at least once and over 9 out of 10 of them had a report with either verified or some indicator of maltreatment. Even though the type of transition of report disposition from one report to another does not explain the type of next disposition or chronicity, as a perpetrator is re-reported multiple times, the likelihood of substantiation increases substantively over time.

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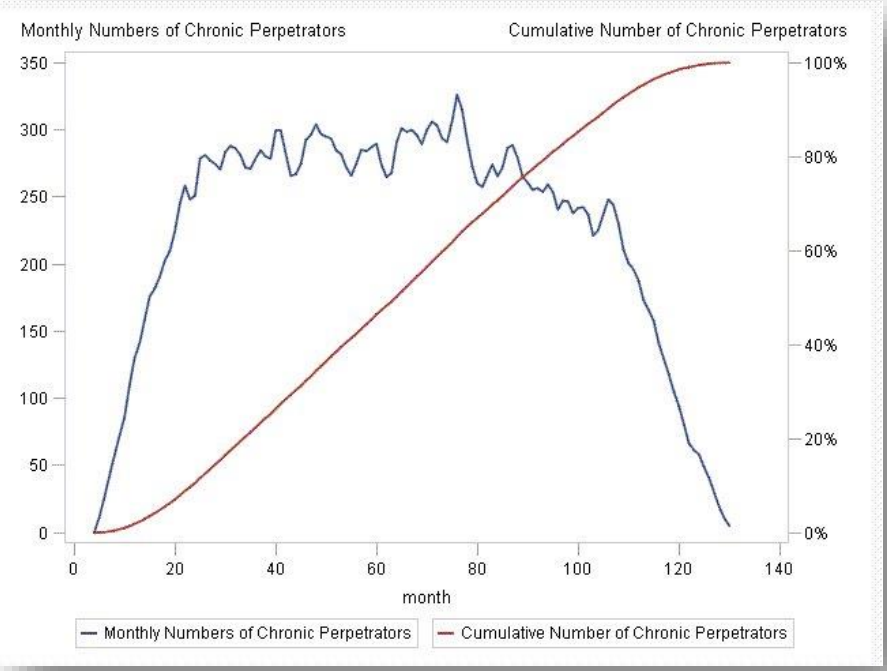
TIME TO CHRONICITY

UNIFORM RISK OVER TIME



The chronicity of maltreatment is a long-term phenomenon and the median time to chronicity was 64 months suggesting that chronic perpetrators have been abusing their children over a very long time period.

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PREDICTING PERPETRATOR CHRONICITY

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RISK FACTOR CATEGORIES

More than 400 variations of risk factors were considered for development of each chronic perpetration risk model. These were reduced by predictive modeling techniques to about 20 per model.

- Historical report characteristics
- Historical placement characteristics
- Historical maltreatment characteristics
- Historical services characteristics
- Current report characteristics
- Alleged perpetrator or caregiver characteristics
- Intergenerational abuse characteristics
- Historical mental health characteristics
- Physical problem characteristics
- Inter-report characteristics
- Geographic risk factors

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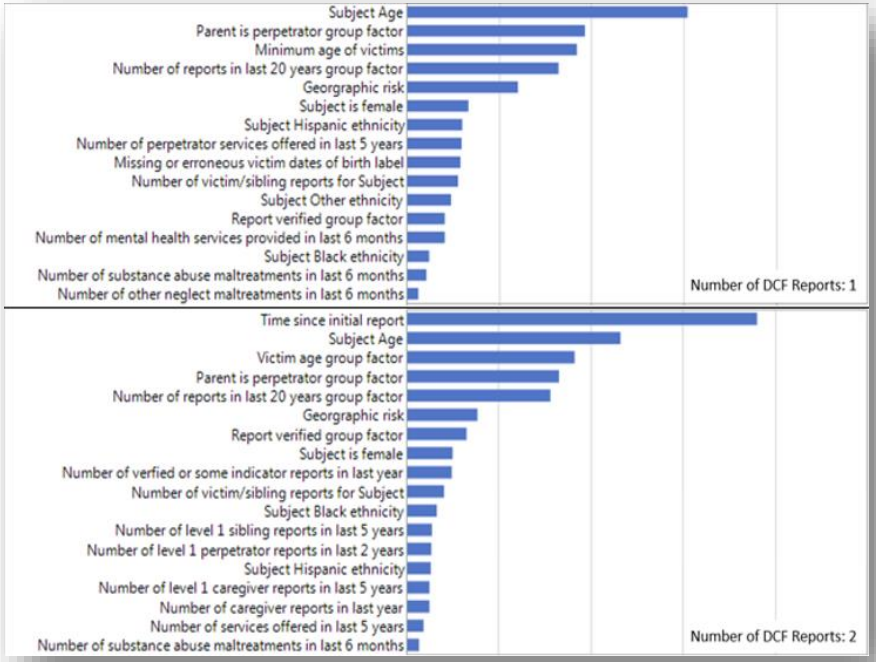
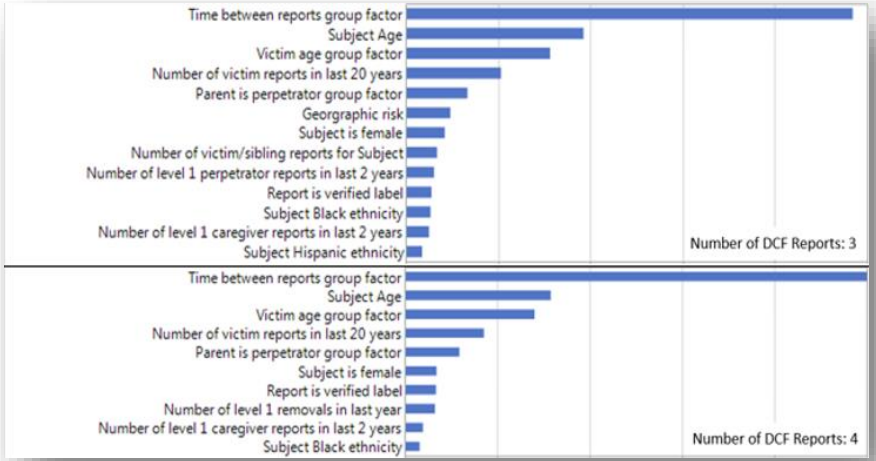
RISK FACTOR IMPORTANCE

RELATIVE RISKS VS DCF REPORT COUNT





Time between reports plays an increasingly important role as the number of DCF reports increases.

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RISK SCORECARD | A USEFUL MODEL SUMMARY

Subject Age	15-17	29
	17-20	28
	20-22	27
	22-25	26
	25-27	25
	27-30	24
	30-32	23
	32-35	22
	35-37	21
	37-40	20
	40-42	19
	42-45	18
	45-48	17
	48-50	16
	50-53	15
	53-55	14
	55-58	13
	58-60	12
	60-63	11
	63-65	10
	65-68	9
	68-70	8
	70-73	7
	73-76	6
	76-78	5
	78-81	4
	81-83	3
	83-86	2
	86-88	1
	88-90	0
Subject is parent of at least one victim in initial report	Yes	19
	No	0
Minimum age of victims	0-1	18
	1-2	17
	2-3	16
	3-4	15
	4-5	14
	5-6	13
	6-7	12
	7-8	11
	8-9	10
	9-10	9
	10-11	8
	11-12	7
	12-13	6
	13-14	5
	14-15	4
	15-16	3
	16-17	2
	17-18	1
	18-18	0
Subject assigned perpetrator role	No	12
	Yes	0
Number of individuals in current report	0-2	10
	3	8
	4	5
	5	3
	6	2
	7	1
	8+	0
Number of network reports in last 20 years (all levels)	109+	10
	40-108	9
	21-39	8
	12-20	7
	7-11	6

- To calculate the chronicity risk for a subject: look up values in a table (one for each risk factor) and add the results together.
- The effect of each risk factor is on the same scale so it is easy to understand the effect each risk factor had on total risk score
- Risk differences between two subjects are quantifiable without calculation
- Differences between risk models at each report stage are easy to compare.

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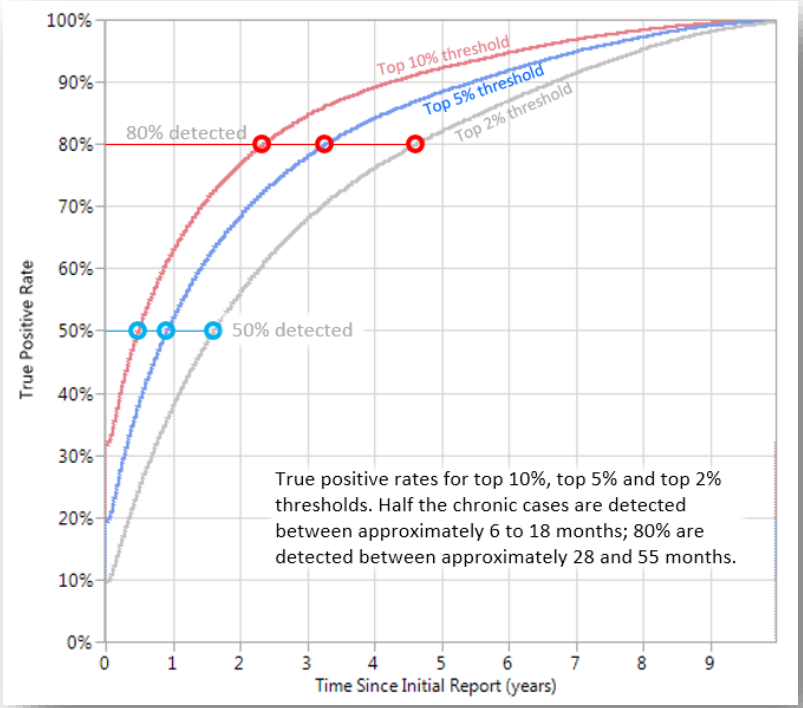
MODEL PERFORMANCE

HIGH RISK DETECTION RATES



The risk models could identify:

- 10% to 33% of chronic subjects on their first DCF report.
- 50% in 6 to 28 months.
- 80% in 28 to 55 months.

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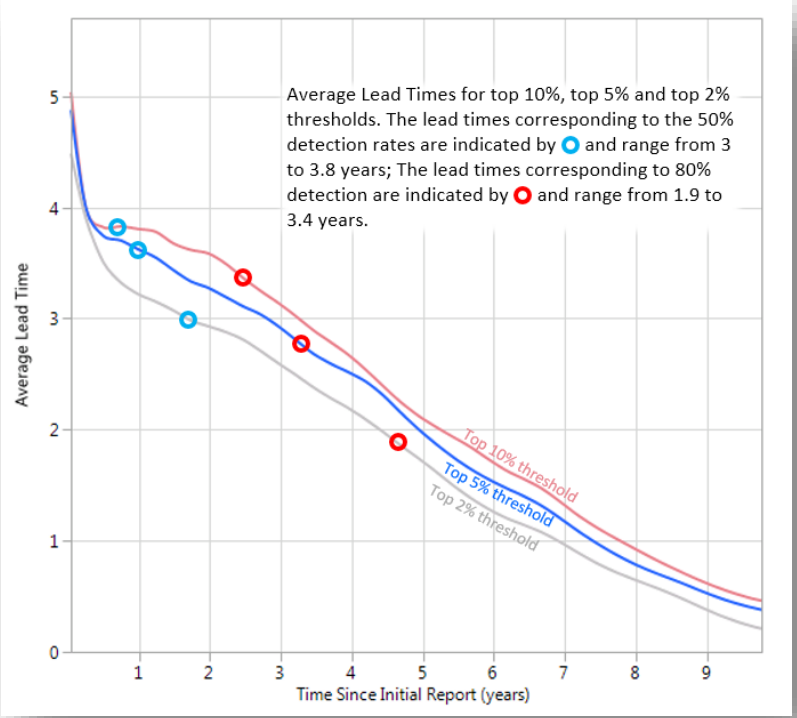
MODEL PERFORMANCE

LEAD TIMES



Lead times (time between detection and the fifth report) varied between:

- 5.4 and 5.7 years for individuals detected on their initial report
- 3.0 to 3.8 years at 50% detection.
- 1.9 to 3.4 years at 80% detection.

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HIGH RISK SUBJECTS

DEFINING CHARACTERISTICS

Risk Factor	Cohort Average	High Risk Average	Difference	% Range
Intergenerational report count	0.2	3.8	3.6	60%
Subject is parent of at least one victim	7.2	15.2	8	42%
Number of reports in last 20 years	4.7	7.9	3.3	33%
Minimum age of victims	12	17	5	28%
Subject Age	21.1	26.8	5.7	20%

A key defining characteristic in high chronicity risk was intergenerational maltreatment. Percent range shows the fraction of total risk factor range spanned by the difference. For example, *Intergenerational report count* has a range of 6 points, the difference between the high risk average and cohort average is 3.6; so the percent range is 3.6/6.0 = 60%.

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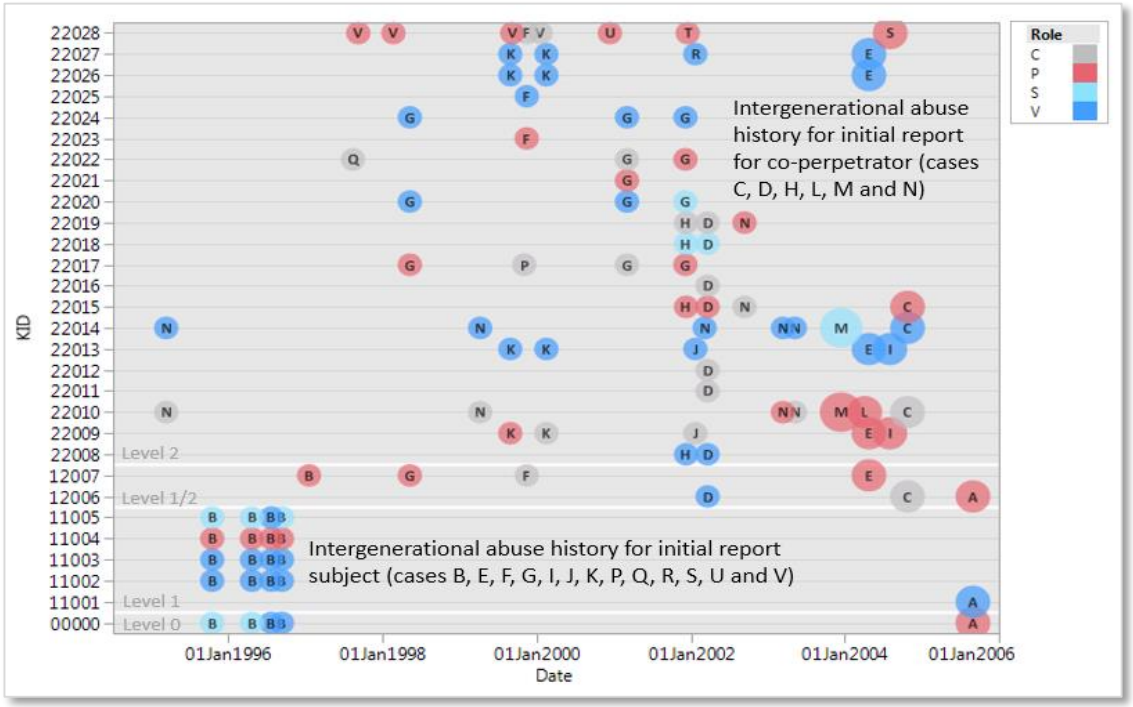
DCF REPORT HISTORY

INITIAL PERPETRATOR REPORT



Many of the highest risk perpetrators are young mothers with young children, a history of victimization, and a large number of networked reports in the past.

In the diagram, each marker is a report. Reports on the same row are for the same individual and the position horizontally indicates the time of the report. The marker color indicates role and the size indicates verification status. The letter in the marker groups reports into cases.

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CHRONICITY CASE STUDY

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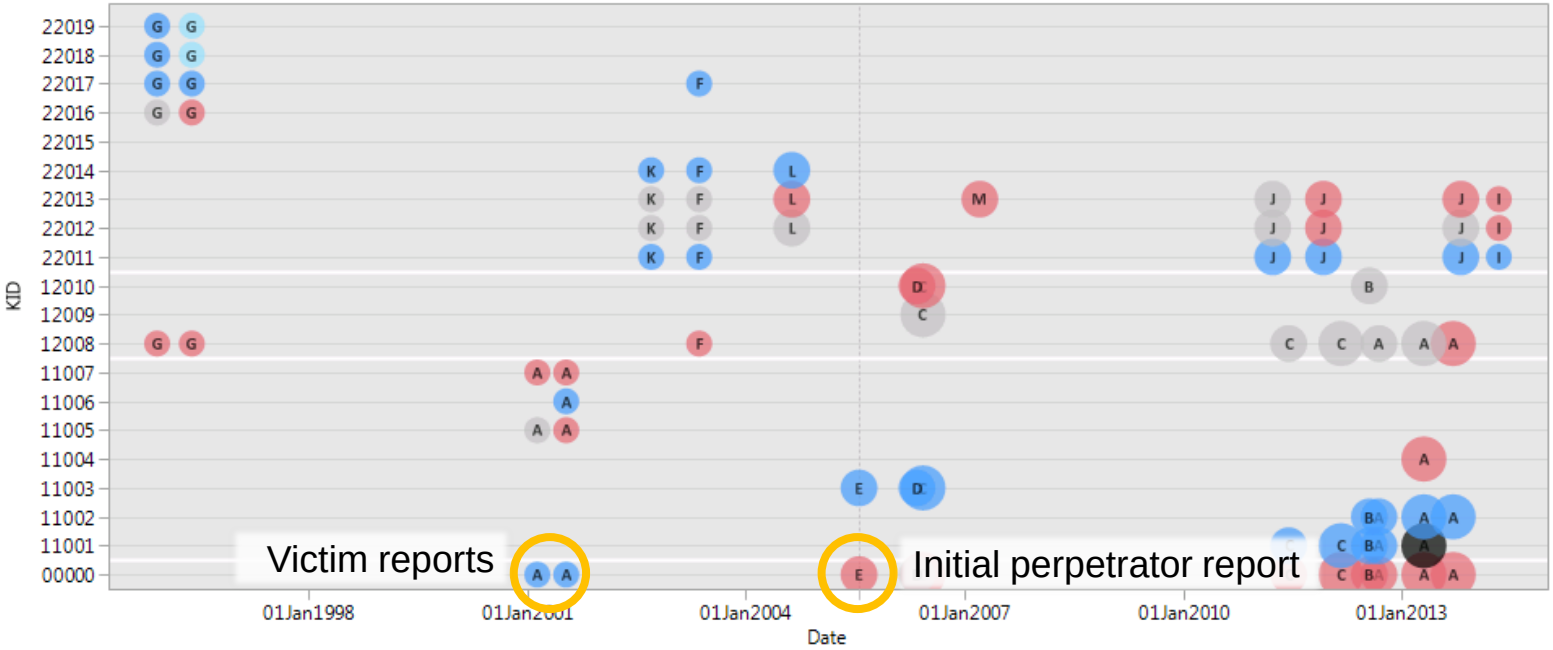
CHRONICITY CASE STUDY

THE TYPOLOGY OF A HIGH CHRONICITY RISK CASE



The individual in question had two (2) victim reports as a child (Case A in 2001) which resulted in a 99.9th percentile initial-report risk score in June 2005 (Case E).

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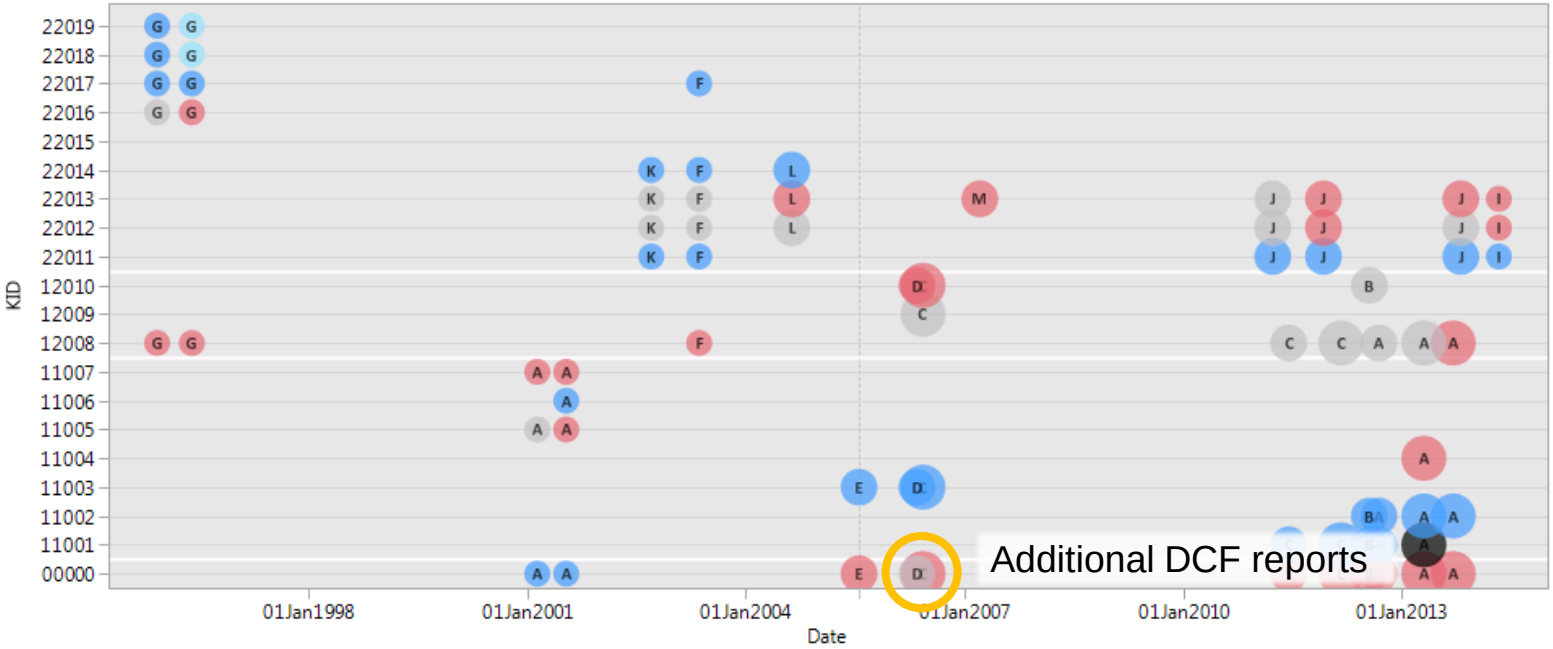
THE TYPOLOGY OF A HIGH CHRONICITY RISK CASE



Two additional DCF reports followed within a year. The verified third report resulted in a removal of the victim from the home in mid-2006.

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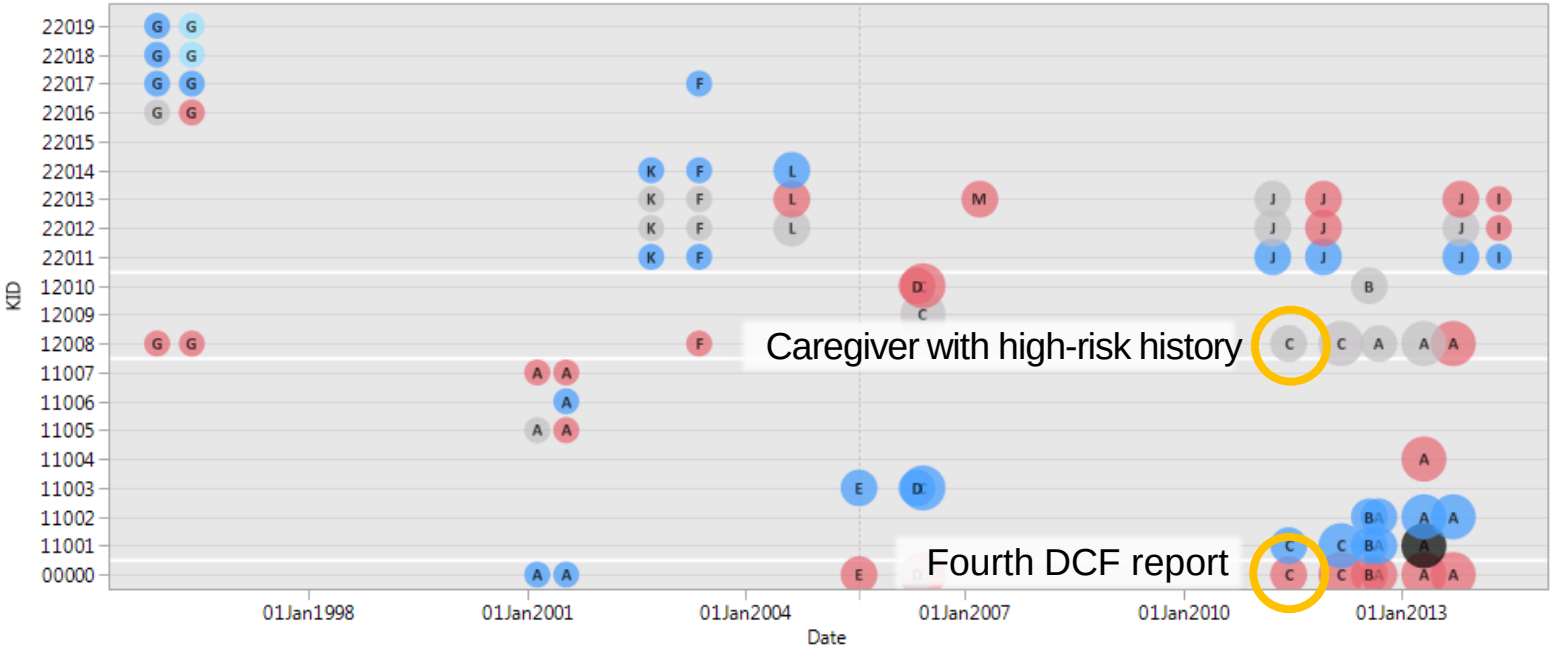
CHRONICITY CASE STUDY

THE TYPOLOGY OF A HIGH CHRONICITY RISK CASE



Approximately five years later in 2011, a fourth report came to the child welfare system for the subject for another child (Case C). A caregiver listed in the fourth report had a history of prior perpetration spanning more than a decade (Cases G and F). Due to entity resolution issues, these prior perpetration reports were apparently not known to the case. The chronicity risk for the caregiver at the fourth report exceeded that of the initial report.

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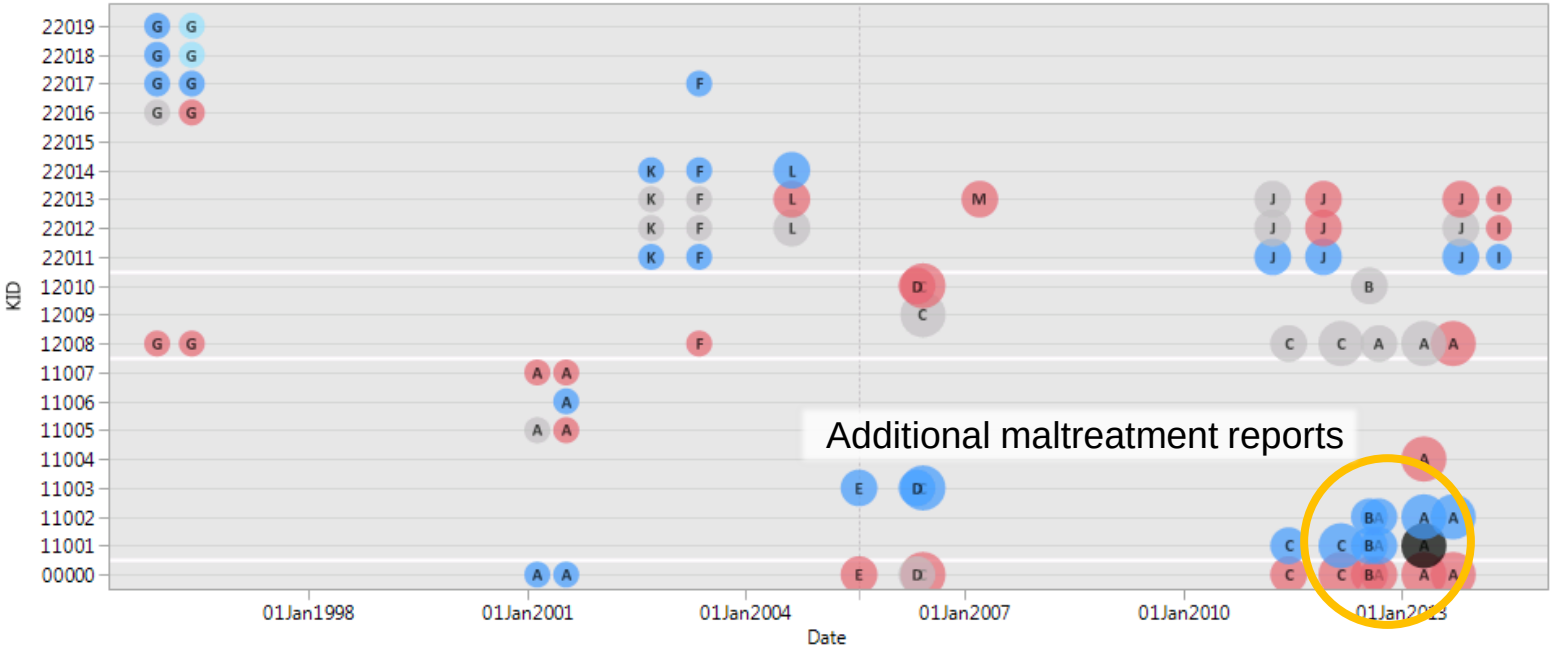
CHRONICITY CASE STUDY

THE TYPOLOGY OF A HIGH CHRONICITY RISK CASE



Over the course of the next three years four additional maltreatment reports came to the child welfare system involving the subject, the affiliated caregiver and (eventually) two victims (Cases B, C and A). The last of these, in early 2013, saw the death of one of the victims due substance-abuse related neglect.

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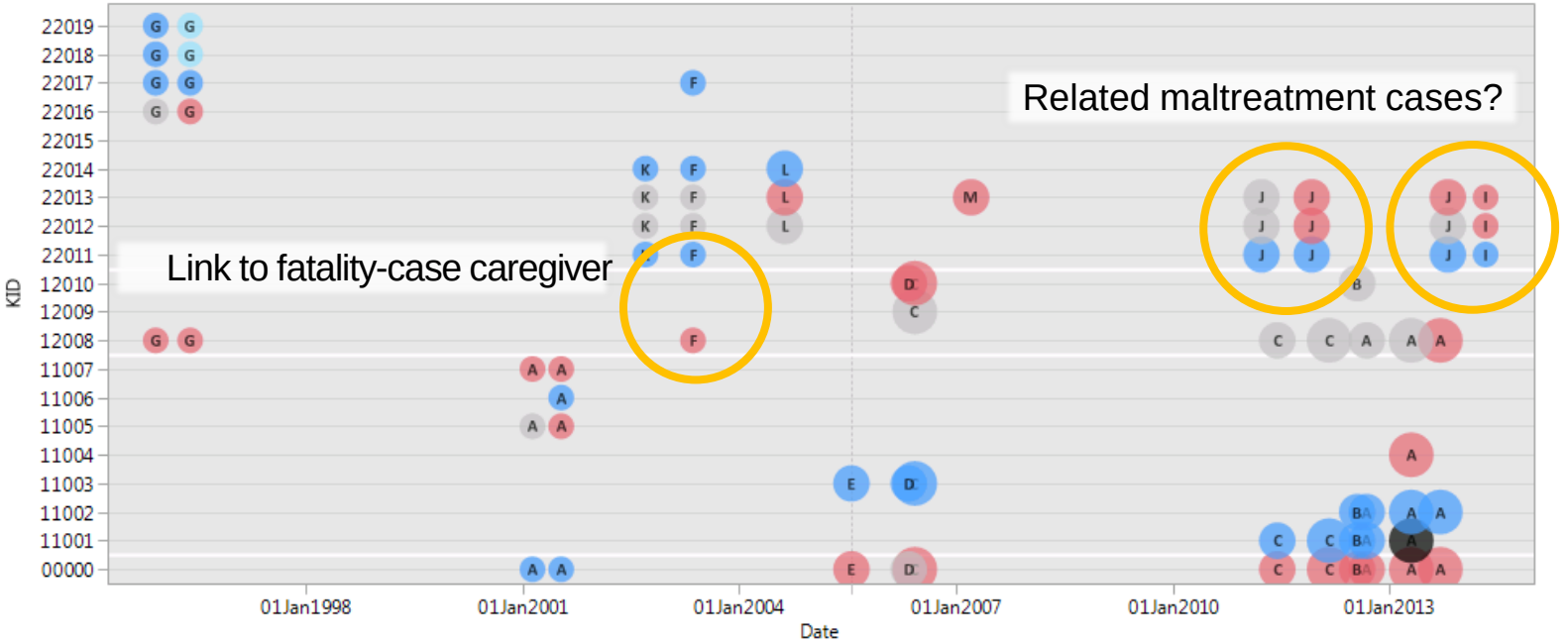
CHRONICITY CASE STUDY

THE TYPOLOGY OF A HIGH CHRONICITY RISK CASE



Approximate in time to the second batch of reports to the child welfare system (in 2011), there were reports regarding another family (Case I and J). While not directly related to the subject, one of the recurring victims in these reports was maltreated by the aforementioned caregiver (Case F in 2003). The relationship between Cases A through C with Cases I and J between 2011 and 2014 is not known.

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ADDITIONAL FINDINGS

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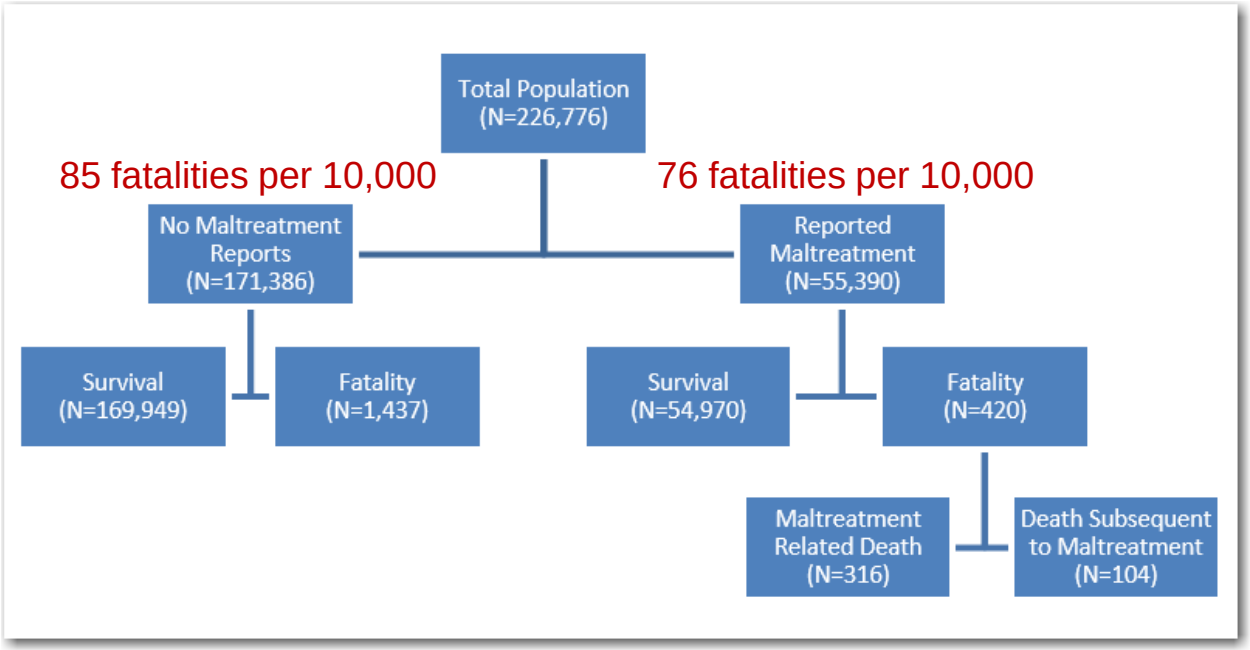
CHILDHOOD FATALITY RATES

FATALITIES AMONG THE 2005 FLORIDA BIRTH COHORT

The overall fatality rate between children in the 2005 Florida birth cohort with and without maltreatment reports is not significantly different (p=0.0693).



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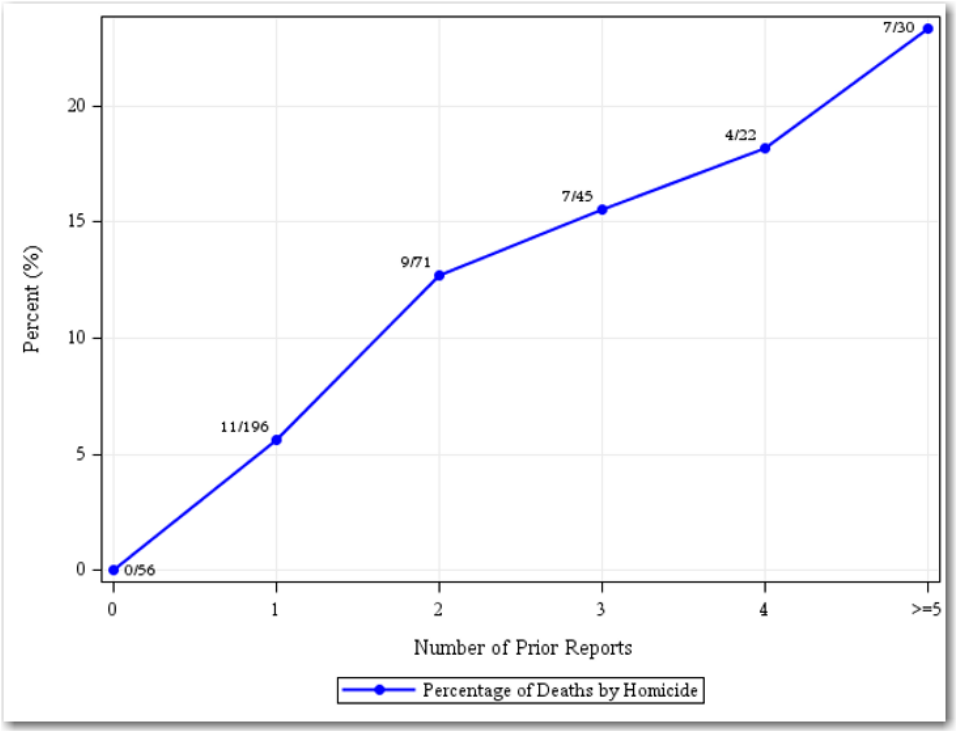
CHILDHOOD FATALITY RATES

MALTREATMENT RELATED HOMICIDES



In general, the percentage of fatalities caused by homicide increased with a greater number of maltreatment reports in the child's history. This was true irrespective of age.

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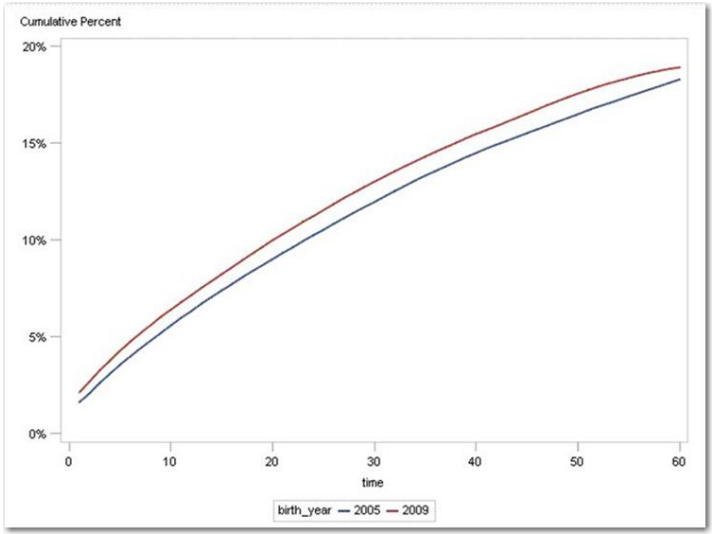
POVERTY AND MALTREATMENT

THE EFFECTS OF THE GREAT RECESSION (2009 COHORT)

2009 Cohort

ACCESS | FSFN | Neither



In spite of the large increase in SNAP participation and poverty rates in Florida after the Great Recession, the study did not find a substantive impact of poverty on child maltreatment rates. While the three quarters of low-income families who received public assistance were not touched by the CPS, over 90% of the families with a maltreatment report participated in public assistance programs.

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ANALYSIS COHORT

The Healthy Families population was also matched against the 2004-05 cohort. The matched population was Healthy Families children who had their initial maltreatment report during the 2004-2005 period. They were both served by Healthy Families program and reported to Florida Department of Children and Families (HF+DCF). The non-matched population were children only served by Healthy Families program (HF). An analysis was conducted to determine if factors recorded in the Healthy Families data such pre- and perinatal factors, socio-economic and demographic factors, program participation factors, family risk factors, and family assessment scores could distinguish children with DCF reports (HF+DCF) from those with no DCF reports (HF).

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PRENATAL, PERINATAL, SOCIO-ECONOMIC AND DEMOGRAPHIC FACTORS

- Not keeping regular prenatal visits increased the odds of a DCF report by 20%.
- Children born with a positive drug addiction status increased the odds of having at least one DCF report by 41%.
- Parental unemployment recorded in Healthy Families data increased the odds of a DCF report by 24%.
- Healthy Families mothers with DCF-reported children were, on the average, two years younger than non-reported children.
- Single mothers had a higher risk of DCF reports compared to married or cohabitating mothers. Being a single Healthy Families mother increased the odds of a DCF report by 92%.

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PROGRAM PARTICIPATION FACTORS

- First time mothers in the Healthy Families program had a lower risk of DCF report. The odds that a first time Healthy Families mother had DCF report were 33% lower than a non-first time mother.
- Similarly, the Healthy Families program appeared to most effective for a mother's first participation in the program. The odds of a DCF report was 43% lower for first-time participants in the program compared to those recorded to have multiple participations in the program.

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FAMILY RISK FACTORS

- The odds of a DCF report for Healthy Families participants with substance abuse concerns were 13% higher than those without substance abuse concerns.
- The odds of a DCF report for Healthy Families participants with domestic violence concerns were 26% higher than those without domestic violence concerns.
- Among the Healthy Families participants, those with disabled children in the house had 32% higher odds of a DCF report than those without disabled children in the house.
- When a Healthy Families parent were determined to have impairments that might challenge personal resources to meet the needs of a child, the odds of a DCF report increased by 38%.
- There appeared to be no statistically significant difference in DCF reporting risk between Healthy Family households found to have mental health concerns.
- There appeared to be no statistically significant difference in DCF reporting risk between Healthy Family households found to have developmental delay concerns.

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FAMILY ASSESSMENT SCORES

- The Ages & Stages Questionnaires: Social Emotional (ASQ:SE) is a first level screening tool that is designed to identify children who may be at risk for social or emotional difficulties. High scores on ASQ:SE indicate high social or emotional risk. The DCF reporting rates were significantly higher for children with higher ASQ:SE scores compared to those with lower ASQ:SE scores.
- The Healthy Families Parenting Inventory (HFPI) is a 63-item outcome measure that was designed to examine change in nine (9) parenting domains: Social Support, Problem Solving, Depression, Personal Care, Mobilizing Resources, Role Satisfaction, Parent/Child Interaction, Home Environment, and Parenting Efficacy. The factors are worded positively in that a high score in a domain is considered an strength and a low score is considered a weakness. The risk of a DCF report was higher for individuals with lower HFPI scores in each of the nine (9) domains.
- The Healthy Families Florida Assessment Tool (HFFAT) is an interview instrument that identifies a combination of factors associated with increased risk of child maltreatment. High HFFAT are supposed to indicate increased maltreatment risk. The analysis of HFFAT scores between the HF+DCF group and the HF group confirmed this supposition: children with higher HFFAT scores had a higher risk for DCF report.

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