The Structured Decision Making® System

# SDM® Family Risk Assessment Supplemental Item Study

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Minnesota Department of
Human Services

NCCD | Children's Research Center

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APPENDICES

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## I.     INTRODUCTION

The primary goal of the Structured Decision Making® (SDM) model is to reduce the subsequent maltreatment of children in families where an abuse or neglect incident has occurred. The most effective way to accomplish this goal is to accurately identify families at high risk for future maltreatment, prioritize them for service intervention, and effectively deliver services appropriate to their needs.

Minnesota Department of Human Services (DHS) developed an SDM® decision-support system for child protective services (CPS) to increase the consistency and validity of worker decisions, target service interventions to families at high risk of subsequent maltreatment, reduce subsequent child maltreatment, and increase the effectiveness of the child protection system. A key feature of the system is an actuarial risk assessment completed by workers at the end of a maltreatment assessment to obtain an objective estimate of the family's risk of future maltreatment.

Minnesota DHS began implementing their SDM case management model in a number of county CPS agencies in 1999. DHS automated the SDM assessments as part of the Social Services Information System (SSIS) in 2001, and all counties were using the SDM model as a decision-support system by the end of 2003. When they designed the system, DHS staff chose to adopt Michigan's SDM family risk assessment of abuse/neglect, have workers systematically record risk factor identification in the field, then conduct a validation study to ensure that the resulting risk classification was valid and equitable.

DHS validated the Michigan risk assessment in 2006 and in 2010 for a population of Minnesota families assessed for possible child maltreatment. The 2006 validation study showed

that the overall risk classification was valid and resulted in testing of supplemental items for future tool inclusion. The 2010 validation study confirmed that the overall risk classification was valid and improved the specificity of the high risk classification with the addition of two items: caregiver's mental health and whether the alleged perpetrator was a boyfriend/partner of the caregiver. After the 2010 validation, DHS staff began recording the status of two supplemental items identified as potential risk factors in a review of child maltreatment fatality cases to test whether these case characteristics could help improve the accuracy of risk classification.

- Father, stepfather, boyfriend, or male roommate provides unsupervised child care to a child under the age of 3

- If yes, is the father, stepfather, boyfriend, or male roommate employed?

Workers completed these supplemental items for all families investigated when they recorded a risk assessment, usually toward the end of an investigation. DHS staff also wanted to ensure an equitable risk classification—specifically, that "high risk" means the same thing regardless of the youngest child's ethnicity.

This report examines how the current risk assessment performed when classifying families assessed or investigated by DHS by the likelihood of subsequent child maltreatment, with the objectives of (1) examining whether including the supplemental items on a revised risk assessment could improve the risk assessment's classification capabilities and (2) ensuring an equitable risk distribution.

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## II. RESEARCH METHODOLOGY

CRC researchers selected a stratified, random sample from all families reported to DHS for child maltreatment and screened-in for further assessment during 2013 and then randomly chose 50% of families in each racial/ethnic subgroup for the analysis. If a family was assessed or investigated more than once during the sample period, the first incident became the sample (i.e., index) event. This sample excludes 337 families that had all children removed for the entire follow-up period and 1,054 families for which a risk assessment was not included. The resulting sample consists of 8,307 unique families assessed or investigated during 2013 for which workers completed a risk assessment.

For the current study, CRC defined a "family" using a proxy identifier. This proxy family identifier was created by identifying alleged victims with allegations on each investigation or assessment and combining these groups of alleged victims with other common members. For example, if Child A and Child B were alleged victims in an investigation, and Child B and Child C were alleged victims in another investigation, all three alleged victims were combined into one family. The family identifier was then used to identify prior and subsequent CPS involvement for the purposes of this study.

Data for analyses came from Minnesota's SSIS, including data on the type of abuse or neglect alleged and confirmed, demographics of children and other family members, and findings from the family risk assessment as recorded by workers at the time of the sample incident. Data describing subsequent CPS outcomes were collected for each family during a standardized follow-up period of 18 months (1.5 years) after their sample incident. A standardized follow-up period means that outcomes were examined for 18 months after the

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sample incident for each family, regardless of when the sample incident occurred. The CPS

outcome measures included assigned reports of allegations of abuse or neglect, family

investigations of abuse or neglect allegations, and determinations of maltreatment.

## A.    Description of the Sample

When sampling families and examining findings by ethnicity, CRC researchers classified

and compared families based on the youngest child's ethnicity. Comparisons were limited to

groups with a sample size of 500 or more (White/Caucasian, Black/African American,

Hispanic/Latino, and American Indian/Alaska Native families; Table 1).

| Table 1 | | |
|---|---|---|
| Race/Ethnicity of Youngest Child Victim | | |
| **Total Sample** | **8,307** | **100%** |
| White/Caucasian | 4,590 | 55.3% |
| Black/African American | 1,707 | 20.5% |
| Hispanic/Latino | 882 | 10.6% |
| American Indian/Alaska Native | 727 | 8.8% |
| Asian/Pacific Islander | 225 | 2.7% |
| Other | 176 | 2.1% |

The most prevalent allegation among sampled referrals was neglect. The majority

(77.8%) of referrals were family assessments, while 22.2% were family investigations. Overall,

12.5% of assessments and investigations were substantiated (56.4% of family investigations;

Table 2).

| Table 2 | | |
|---|---|---|
| **Characteristics of Sampled Referrals** | | |
| **Total Sample** | **8,307** | **100%** |
| **Sample Allegations[1]** | | |
| Neglect | 5,013 | 60.3% |
| Physical abuse | 2,802 | 33.7% |
| Sexual abuse | 1,048 | 12.6% |
| Medical neglect | 84 | 1.0% |
| Emotional abuse | 71 | 0.9% |
| **Investigation Track** | | |
| Family assessment | 6,462 | 77.8% |
| Family investigation | 1,845 | 22.2% |
| **Substantiated Allegations** | | |
| No | 7,267 | 87.5% |
| Yes | 1,040 | 12.5% |

## B.       Subsequent CPS Involvement of Sampled Families

Outcomes consisted of subsequent CPS involvement observed for each family during the

standardized 18-month follow-up period. Subsequent involvement included any assigned report

of abuse or neglect (i.e., family investigation or assessment), a family investigation of abuse or

neglect allegations, and a determination of maltreatment.

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[1] More than one allegation may have been received; therefore, the sum of percentages will be greater than 100%.

The current risk assessment has two classification indices: one for likelihood of subsequent neglect and one for likelihood of subsequent abuse. CRC examined the specific maltreatment outcomes to determine the ability of these indices to classify families by the likelihood of each maltreatment type. Subsequent CPS involvement related to neglect allegations was examined by referencing the classification resulting from the risk of neglect index. The risk of abuse index was examined relative to subsequent abuse assessments. The final risk classification, which is the higher of the neglect and abuse risk classifications, was examined by looking at any subsequent CPS involvement, regardless of allegation type.

Overall, 19.4% of sampled families had a subsequent family assessment or family investigation for neglect during the outcome period, 6.7% were subsequently investigated for neglect, and 4.2% had a determination for neglect. When CRC compared outcomes by type of index event (family investigation or family assessment), results for two of the three neglect outcomes were similar. For example, subsequent investigation rates were 6.3% for sampled family assessments and 8.2% for sampled family investigations. The subsequent neglect determination outcome percentage was 4.2% for both sample event types. The rates of subsequent assigned report for neglect, however, were different; a lower percentage (15.6%) of families with a sampled family investigation had a subsequent assigned report for neglect compared with the 20.5% of families with a sampled family assessment (Table 3).

The percentage of families with subsequent neglect allegations differed by race/ethnicity. Black/African American and American Indian/Alaska Native families had higher than average outcome rates, while White/Caucasian and Asian/Pacific Islander families had lower than average rates. For example, 30.1% of American Indian/Alaska Native families and

21.0% of Black/African American families were assessed or investigated for neglect during the

follow-up period, compared with only 18.3% of White/Caucasian families. This pattern held for

the outcomes subsequent family investigation and determination for neglect (Table 3).

| | | Neglect Outcomes During the 18-Month Follow-Up Period | | |
|---|---|---|---|---|
| **Subgroup** | **Sample** | **Assigned Report for Neglect Any Type** | **Neglect Family Investigation** | **Neglect Determination** |
| **Total Sample** | **8,307** | **19.4%** | **6.7%** | **4.2%** |
| **Type of Index Event** | | | | |
| Family assessment | 6,462 | 20.5% | 6.3% | 4.2% |
| Family investigation | 1,845 | 15.6% | 8.2% | 4.2% |
| **Youngest Child Victim's Race/Ethnicity** | | | | |
| White/Caucasian | 4,590 | 18.3% | 5.7% | 3.2% |
| Black/African American | 1,707 | 21.0% | 8.4% | 6.0% |
| American Indian/Alaska Native | 727 | 30.1% | 11.4% | 7.2% |
| Hispanic/Latino | 882 | 17.8% | 6.3% | 4.3% |
| Asian/Pacific Islander | 225 | 8.0% | 4.0% | 2.2% |
| Other | 176 | 11.9% | 2.8% | 1.7% |

**Table 3**

**Subsequent CPS Involvement for Neglect
During a Standardized 18-Month Follow-Up Period by Subgroup**

Overall, 11.9% of sampled families were assessed or investigated for abuse during the follow-up period, while 5.5% had a subsequent family investigation and 2.2% had a determination for abuse. Families with a sampled family assessment experienced similar abuse investigation and determination outcomes compared to families with a sampled investigation; a slightly higher proportion experienced an assigned report for abuse. Abuse outcomes were more similar for families by race/ethnicity than neglect outcomes (Table 4).

| Table 4 | | | | |
|---|---|---|---|---|
| Subsequent CPS Involvement for Abuse During a Standardized 18-Month Follow-Up Period by Subgroup | | | | |
| Subgroup | Sample | Abuse Outcomes During the 18-Month Follow-Up Period | | |
| | | Assigned Report for Abuse Any Type | Abuse Family Investigation | Abuse Determination |
| **Total Sample** | **8,307** | **11.9%** | **5.5%** | **2.2%** |
| **Type of Index Event** | | | | |
| Family assessment | 6,462 | 12.3% | 5.2% | 2.2% |
| Family investigation | 1,845 | 10.7% | 6.6% | 2.3% |
| **Youngest Child Victim's Race/Ethnicity** | | | | |
| White/Caucasian | 4,590 | 12.9% | 5.4% | 2.2% |
| Black/African American | 1,707 | 11.4% | 6.2% | 3.0% |
| American Indian/Alaska Native | 727 | 11.6% | 6.6% | 2.2% |
| Hispanic/Latino | 882 | 11.2% | 5.6% | 2.0% |
| Asian/Pacific Islander | 225 | 5.8% | 2.7% | 0.4% |
| Other | 176 | 6.8% | 1.7% | 0.0% |

Among all sampled families, 25.8% were assessed or investigated at least once during the standardized 18-month follow-up period, and 10.1% had a subsequent family investigation. Workers determined that maltreatment occurred for 5.6% of the families. Consistent with

neglect- and abuse-specific outcomes, families with a sampled family assessment had a higher

proportion that experienced a subsequent assigned report than did families with a sampled

family investigation, but a lower proportion with a subsequent investigation and determination.

White/Caucasian, Hispanic/Latino, and Asian/Pacific Islander families had lower than average

subsequent assigned report, investigation, and determination rates, while American

Indian/Alaska Native and Black/African American families had higher than average rates.

American Indian/Alaska Native families had subsequent assigned report rate roughly 30% higher

and an investigation rate 50% higher than those of the overall sample (Table 5).

| Table 5 | | | | |
|---|---|---|---|---|
| **Subsequent CPS Involvement of Sampled Families During a Standardized 18-Month Follow-Up Period** | | | | |
| **Sample Characteristics** | **Sample** | **Outcomes During the 18-Month Follow-Up Period** | | |
| | | **Assigned Report Any Type** | **Family Investigation** | **Maltreatment Determination** |
| **Total Sample** | **8,307** | **25.8%** | **10.1%** | **5.6%** |
| **Type of Assessment Conducted** | | | | |
| Family assessment | 6,462 | 26.9% | 9.4% | 5.5% |
| Family investigation | 1,845 | 22.0% | 12.7% | 5.9% |
| **Youngest Child Victim's Race/Ethnicity** | | | | |
| White/Caucasian | 4,590 | 25.5% | 9.3% | 4.5% |
| Black/African American | 1,707 | 26.8% | 12.1% | 8.3% |
| American Indian/Alaska Native | 727 | 34.4% | 15.1% | 8.4% |
| Hispanic/Latino | 882 | 23.2% | 9.0% | 5.3% |
| Asian/Pacific Islander | 225 | 11.6% | 4.9% | 2.7% |
| Other | 176 | 17.6% | 4.0% | 1.7% |

**C.**     **The Current SDM® Family Risk Assessment of Abuse/Neglect**

The risk assessment currently employed by DHS helps workers observe specific

characteristics of families and children involved in assigned reports of child abuse or neglect to

objectively estimate the risk of future maltreatment of a child. At the close of the assessment or

investigation, the worker completes the 12-item family neglect index and the 13-item abuse

index (see Appendix A). These scores determine an initial risk classification for abuse and neglect

for each referral, i.e., "low," "moderate," or "high" risk. The overall classification level assigned to

the family at the close of the assessment is the higher risk classification reached by either the

abuse or neglect risk index. For example, a family scoring low risk for future abuse and high risk

for future neglect would have an overall classification of high risk.

The risk classification allows the worker and the agency to prioritize service intervention

according to the risk of future maltreatment. Because the agency's mission is to reduce the

incidence of abuse and neglect, it is important to ensure that families at high risk receive a high

priority for service provision and worker time. Actuarial risk assessment provides workers with an

estimate of future family behavior based on a limited set of observable factors to help workers

identify families at higher risk more accurately and, thereby, allocate services more effectively. It

is important to note that the risk assessment is a classification tool and is not designed to yield

infallible predictions for individual families.

Because risk assessment cannot address all aspects of an individual family case, DHS has

explicitly defined overrides of the initial risk classification assigned by the assessment

instrument, which reflect agency policy. If any case circumstances described by the policy

override reasons apply to a family under assessment, the family would be assigned to the high

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risk classification, regardless of the scored risk level. Investigating workers and supervisors can also exercise a discretionary override, which increases the scored classification by one level and is based on the worker's professional judgment and observation of the family. Whether workers exercise a discretionary override or not, their decisions will be informed by a scored risk classification that is objectively determined and has a strong empirical relationship to the incidence of future maltreatment (see Appendix A).

The following analyses consider observed case outcomes for the scored risk classification of each sample family. As mentioned previously, outcomes for each family were observed for an 18-month period following the sample incident to assess subsequent CPS involvement after the risk assessment was completed. Subsequent neglect assessment and determination rates are reported for the scored neglect classification, subsequent abuse rates are reported for the scored abuse classification, and overall rates of subsequent assessment or maltreatment determination are shown for the overall risk classification (before any overrides).

### III.  FINDINGS

### A.  Current Family Risk Assessment Classification Findings

An effective and valid risk assessment has progressively higher proportions of families who experienced an outcome corresponding to each increase in risk level across multiple outcomes. Ideally, the proportions between consecutive risk levels maximize the separation between the high and low risk groups, as well as between consecutive risk groups. In other words, each increase in risk level should correspond to an increase in subsequent CPS involvement that, across outcomes, is significantly greater.

1.      <u>Current Family Risk Assessment Classification Findings for Neglect</u>

Eighteen months after the initial classification was assigned, 19.4% of the sampled families were involved in either a family assessment or a family investigation for an allegation of neglect on at least one occasion. Of the families classified as being at low risk, 8.2% had an assigned report for a neglect allegation. Families classified as being at moderate risk for neglect had double the proportion with a subsequent assigned report for neglect, and the proportion of families at high risk with a subsequent assigned report for neglect was nearly four times greater than the proportion of families at low risk. For the current neglect index, the same pattern was observed when the outcome was subsequent family investigation of neglect or determined neglect. Based on these findings, it appears the current neglect risk assessment is performing well when classifying families by their risk of subsequent neglect (Table 6).

| Table 6 | | | | | |
|---|---|---|---|---|---|
| Current Risk of Neglect Classification by Neglect Outcomes | | | | | |
| Neglect Risk Level | Sample Distribution | | Outcomes During the 18-Month Follow-Up Period | | |
| | N | % | Assigned Report for Neglect Any Type | Neglect Family Investigation | Neglect Determination |
| Low | 1,808 | 21.8% | 8.2% | 2.0% | 1.0% |
| Moderate | 4,604 | 55.4% | 18.8% | 5.6% | 3.4% |
| High | 1,895 | 22.8% | 31.6% | 13.9% | 9.1% |
| **Total Sample** | **8,307** | **100.0%** | **19.4%** | **6.7%** | **4.2%** |

2. <u>Current Family Risk Assessment Classification Findings for Abuse</u>

The risk assessment also performed well when classifying families by their likelihood of subsequent abuse. For example, among the families classified as being at low risk for subsequent abuse, 8.4% were subsequently assessed for abuse allegations. The proportion of families classified as being at moderate risk with a follow-up assigned report for abuse was 14.0%, nearly 70% greater than that of families at low risk. Of families classified as being at high risk, 24.9% had a subsequent assigned report for abuse, roughly three times greater than the proportion of families classified as being at low risk. An increase in the abuse risk level also corresponded to an increase in recurrence when the outcome was a subsequent family investigation for abuse or subsequent abuse determination (Table 7).

| Table 7 | | | | | |
|---|---|---|---|---|---|
| **Current Risk of Abuse Classification by Abuse Outcomes** | | | | | |
| | **Sample Distribution** | | **Outcomes During the 18-Month Follow-Up Period** | | |
| **Abuse Risk Level** | **N** | **%** | **Assigned Report for Abuse Any Type** | **Abuse Family Investigation** | **Abuse Determination** |
| Low | 4,675 | 56.3% | 8.4% | 3.4% | 1.3% |
| Moderate | 2,804 | 33.8% | 14.0% | 6.5% | 2.5% |
| High | 828 | 10.0% | 24.9% | 14.4% | 6.5% |
| **Total Sample** | **8,307** | **100.0%** | **11.9%** | **5.5%** | **2.2%** |

3. <u>Current Family Risk Assessment Classification Findings for Any Maltreatment</u>

As mentioned previously, the overall risk classification is the highest risk level assigned by the abuse or neglect index. The overall classification establishes a risk level that estimates the

likelihood of subsequent maltreatment of any kind (i.e., abuse or neglect). The agency uses this classification to inform case decisions.

During the 18 months following completion of the sampled assessment, 25.8% of sampled families had at least one additional assigned report for maltreatment. Among families classified as being at low risk, 13.5% had a follow-up assigned report. A higher proportion of families classified as being at moderate and high risk experienced a subsequent assigned report for abuse or neglect (23.9% and 36.9%, respectively). Findings were similar when the outcome was subsequent family investigation for abuse or neglect, and the risk assessment also provided strong estimates when the outcome was maltreatment determination (Table 8).

| Table 8 | | | | | |
|---|---|---|---|---|---|
| Current Overall Risk Classification by Maltreatment Outcomes | | | | | |
| Overall Risk Level | Sample Distribution | | Outcomes During the 18-Month Follow-Up Period | | |
| | N | % | Assigned Report Any Type | Family Investigation | Maltreatment Determination |
| Low | 1,314 | 15.8% | 13.5% | 3.3% | 1.8% |
| Moderate | 4,738 | 57.0% | 23.9% | 8.1% | 4.2% |
| High | 2,255 | 27.1% | 36.9% | 18.2% | 10.7% |
| **Total Sample** | **8,307** | **100.0%** | **25.8%** | **10.1%** | **5.6%** |

4.      <u>Current Family Risk Assessment Classification Findings by Type of Sampled Incident</u>

Examining current risk assessment performance for each type of sampled incident (family assessment or family investigation) showed that families with a sampled family assessment were slightly more likely to be classified as being at lower risk than were families with a family

investigation. For example, 31.6% of families with a family investigation were classified as high

risk, compared with 25.9% of families who received a sampled family assessment (Table 9).

The current risk assessment classified families effectively by the likelihood of future

maltreatment regardless of the sample incident's assessment track. For both groups of families,

an increase in risk corresponds to an increase in the proportion of families with a subsequent

assigned report and/or family investigation of child maltreatment. Within a given risk

classification, the proportion that experienced an outcome was similar for assessments as well as

family investigations (Table 9). These findings suggest that the risk assessment demonstrates

predictive validity and equity by investigation track.

| Table 9 | | | | | |
|---|---|---|---|---|---|
| Current Overall Risk Classification by Maltreatment Outcomes: Sample Incident Type | | | | | |
| Overall Risk Level | Sample Distribution | | Outcomes During the 18-Month Follow-Up Period | | |
| | N | % | Assigned Report Any Type | Family Investigation | Maltreatment Determination |
| Total Sample | 8,307 | 100% | 25.8% | 10.1% | 5.6% |
| Family Assessment | | | | | |
| Low | 943 | 14.6% | 15.0% | 3.2% | 1.7% |
| Moderate | 3,847 | 59.5% | 24.8% | 7.5% | 4.2% |
| High | 1,672 | 25.9% | 38.4% | 17.3% | 10.7% |
| Total Assessments | 6,462 | 100.0% | 26.9% | 9.4% | 5.5% |
| Family Investigation | | | | | |
| Low | 371 | 20.1% | 10.0% | 3.8% | 1.9% |
| Moderate | 891 | 48.3% | 20.1% | 11.0% | 4.5% |
| High | 583 | 31.6% | 32.4% | 20.9% | 10.6% |
| Total Investigations | 1,845 | 100.0% | 22.0% | 12.7% | 5.9% |

5.      <u>Current Family Risk Assessment Classification Findings by Race/Ethnicity</u>

Classification findings were also compared for race/ethnic groups with a sample of 500 or more families. In almost all cases, the risk assessment classified families within each ethnic group such that an increase in risk corresponded to an increase in the proportion of families with a subsequent family assessment and/or investigation. The exception was American Indian/Alaska Native families classified as being at low and moderate risk; a similar proportion experienced a subsequent assigned report and a subsequent family investigation during the standardized follow-up period. Very few American Indian/Alaska Native families (8.3%) were classified as low risk; the majority (53.0%) were classified as being at moderate risk (Table 10).

When comparing families within risk classifications, all high-risk families across ethnic groups had similar proportions that experienced a subsequent assigned report, family investigation, and determination, and the proportions were greater than the proportion of moderate-risk families with the outcome of interest. The same pattern was observed for low- and moderate-risk cases across ethnic groups, with one exception. The proportion of low-risk American Indian/Alaska Native families with a subsequent family investigation (10.0%) was higher than the proportion of moderate-risk Black/African American families (8.8%), White/Caucasian families (8.0%), and Hispanic/Latino families (7.1%) who experienced the same outcome. This was true when the outcome was subsequent assigned report as well, but not when the outcome was subsequent determination of child maltreatment. Again, it is important to consider that very few American Indian/Alaska Native families were classified as being at low risk (Table 10).

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| | | | Table 10 | | | |
|---|---|---|---|---|---|---|
| | | | | | | |

**Current Overall Risk Classification by Maltreatment Outcomes: Race/Ethnicity**

| Overall Risk Level | Sample Distribution | | Outcomes During the 18-Month Follow-Up Period | | |
|---|---|---|---|---|---|
| | N | % | Assigned Report Any Type | Family Investigation | Maltreatment Determination |
| **Total Sample** | **8,307** | **100%** | **25.8%** | **10.1%** | **5.6%** |
| **White/Caucasian** | | | | | |
| Low | 755 | 16.4% | 12.8% | 2.6% | 1.2% |
| Moderate | 2,625 | 57.2% | 24.5% | 8.0% | 3.4% |
| High | 1,210 | 26.4% | 35.8% | 16.2% | 8.8% |
| **Subtotal** | **4,590** | **100.0%** | **25.5%** | **9.3%** | **4.5%** |
| **Black/African American** | | | | | |
| Low | 242 | 14.2% | 15.7% | 5.0% | 3.7% |
| Moderate | 995 | 58.3% | 23.7% | 8.8% | 6.0% |
| High | 470 | 27.5% | 38.9% | 22.6% | 15.3% |
| **Subtotal** | **1,707** | **100.0%** | **26.8%** | **12.1%** | **8.3%** |
| **Hispanic/Latino** | | | | | |
| Low | 141 | 16.0% | 14.9% | 4.3% | 2.1% |
| Moderate | 509 | 57.7% | 20.4% | 7.1% | 4.3% |
| High | 232 | 26.3% | 34.5% | 15.9% | 9.5% |
| **Subtotal** | **882** | **100.0%** | **23.2%** | **9.0%** | **5.3%** |
| **American Indian/Alaska Native** | | | | | |
| Low | 60 | 8.3% | 26.7% | 10.0% | 3.3% |
| Moderate | 385 | 53.0% | 30.6% | 10.6% | 6.2% |
| High | 282 | 38.8% | 41.1% | 22.3% | 12.4% |
| **Subtotal** | **727** | **100.0%** | **34.4%** | **15.1%** | **8.4%** |

Examining the prevalence of risk factors shows that many risk factors for neglect are more commonly identified for American Indian/Alaska Native families. For example, approximately 70% of American Indian/Alaska Native families had a current allegation of neglect compared with 48% to 55% of other families. More than half (57.4%) of American Indian/Alaska Native families had a prior assigned report compared with about 26% to 43% of other families. American Indian/Alaska Native families also were more likely to have a substance abuse issue identified and were slightly more likely to have domestic violence identified as a risk factor compared with other families (Table 11)

| Table 11 | | | | | |
|---|---|---|---|---|---|
| **Prevalence of Neglect Risk Factors by Ethnicity** | | | | | |
| | **White/ Caucasian** | **Black/African American** | **American Indian/Alaska Native** | **Hispanic/ Latino** | **Asian/ Pacific Islander** |
| **Total Sample** | **4,590** | **1,707** | **727** | **882** | **225** |
| **N1. Current report is for neglect** | | | | | |
| No | 44.6% | 41.6% | 30.1% | 44.9% | 51.6% |
| Yes | 55.4% | 58.4% | 69.9% | 55.1% | 48.4% |
| **N2. Current report is for educational neglect** | | | | | |
| No | 93.1% | 89.2% | 83.5% | 86.5% | 96.4% |
| Yes | 6.9% | 10.8% | 16.5% | 13.5% | 3.6% |
| **N3. Number of prior assigned reports** | | | | | |
| None | 58.7% | 56.7% | 42.6% | 61.6% | 73.8% |
| One or more | 41.3% | 43.3% | 57.4% | 38.4% | 26.2% |
| **N4. Prior CPS history** | | | | | |
| Not applicable | 86.3% | 83.5% | 72.4% | 87.2% | 92.4% |
| Prior case opening | 13.7% | 16.5% | 27.6% | 12.8% | 7.6% |
| **N5. Number of children in the home** | | | | | |
| One | 32.9% | 28.2% | 28.3% | 23.4% | 19.1% |
| Two or more | 67.1% | 71.8% | 71.7% | 76.6% | 80.9% |
| **N6. Age of youngest child** | | | | | |
| 3 or older | 66.1% | 57.9% | 57.6% | 59.5% | 55.1% |
| 2 or younger | 33.9% | 42.1% | 42.4% | 40.5% | 44.9% |
| **N7. Child in home has a developmental disability/emotional impairment** | | | | | |
| No | 70.5% | 75.9% | 82.3% | 76.8% | 84.9% |
| Yes | 29.5% | 24.1% | 17.7% | 23.2% | 15.1% |
| **N8. Number of adults in home at time of report** | | | | | |
| Two or more | 69.2% | 55.4% | 62.9% | 70.2% | 84.0% |
| One or none | 30.8% | 44.6% | 37.1% | 29.8% | 16.0% |
| **N9. Age of primary caregiver** | | | | | |
| 30 or older | 67.0% | 59.0% | 57.2% | 61.6% | 70.2% |
| 29 or younger | 33.0% | 41.0% | 42.8% | 38.4% | 29.8% |
| **N10. Either caregiver has a history of domestic violence** | | | | | |
| No | 65.9% | 65.7% | 61.8% | 65.0% | 71.1% |
| Yes | 34.1% | 34.3% | 38.2% | 35.0% | 28.9% |
| **N11. Either caregiver has/had an alcohol or drug problem during the last 12 months** | | | | | |
| No | 73.3% | 85.4% | 61.2% | 82.2% | 86.7% |
| Yes | 26.7% | 14.6% | 38.8% | 17.8% | 13.3% |
| **N12. Primary caregiver has/had a mental health problem** | | | | | |
| No | 70.1% | 77.7% | 73.2% | 80.2% | 89.8% |
| Yes | 29.9% | 22.3% | 26.8% | 19.8% | 10.2% |

**B.      Examination of Supplemental Items**

As mentioned previously, the primary objective of this study was to determine whether supplemental items added by DHS staff in 2010 improved the risk assessment's classification abilities. When recording risk assessment findings after a comprehensive family assessment, workers also completed the supplemental items ("Father, stepfather, boyfriend, or male roommate provides unsupervised child care to a child under the age of 3" and "If yes, is the father, stepfather, boyfriend, or male roommate employed?").

The items were not correlated to subsequent abuse incidents. They were significantly correlated to subsequent neglect measures, although correlations were low (.021 to .047; data not shown). Examining neglect outcomes by the supplemental items shows that the relationship is stronger when a father, stepfather, boyfriend, or male roommate is providing unsupervised care of a child 3 years of age or younger and is unemployed. Among families with a father, stepfather, boyfriend, or male roommate providing unsupervised care of a child 3 years of age or younger, 20.9% had a subsequent neglect incident reported during the 18-month standardized follow-up period compared with 18.9% of the remaining families. Among those with an unemployed father, stepfather, boyfriend, or male roommate providing unsupervised care of a child 3 years of age or younger, 25.4% had a subsequent neglect incident reported during the 18-month standardized follow-up period (Table 12).

| Table 12 | | | | | |
|---|---|---|---|---|---|
| **Supplemental Items by Neglect Outcomes** | | | | | |
| **Supplemental Risk Items** | **Sample Distribution** | | **Outcomes During the 18-Month Follow-Up Period** | | |
| | **N** | **%** | **Assigned Report for Neglect Any Type** | **Neglect Family Investigation** | **Neglect Determination** |
| **Total Sample** | **8,307** | **100.0%** | **19.4%** | **6.7%** | **4.2%** |
| **S1. Father, stepfather, boyfriend, or male roommate provides unsupervised child care to a child under the age of 3** | | | | | |
| No | 6,292 | 75.7% | 18.9% | 6.3% | 3.8% |
| Yes | 2,015 | 24.2% | 20.9% | 8.1% | 5.3% |
| **S2. Father, stepfather, boyfriend, or male roommate provides unsupervised child care to a child under the age of 3 <u>and</u> is unemployed** | | | | | |
| No | 7,571 | 91.1% | 18.8% | 6.4% | 3.9% |
| Yes | 736 | 8.9% | 25.4% | 10.2% | 6.8% |

## C.  The Revised SDM® Family Risk Assessment of Abuse/Neglect

Overall, the risk assessment performed well when classifying families by the likelihood of child maltreatment. However, very few American Indian/Alaska Native families were classified as high risk, and a higher percentage of low-risk American Indian/Alaska Native families were reinvestigated than other moderate-risk families.

To address this and to examine whether the supplemental items could improve accuracy, CRC researchers conducted independent analyses on this construction sample to develop a revised risk assessment by examining the relationship between the risk factors captured on the current risk assessment, as well as the relationship between caregiver mental health and unmarried partner allegations to subsequent CPS assessments and findings. Staff used bivariate and multivariate statistical techniques to evaluate each risk factor for inclusion in the risk assessment, determine appropriate weights for each one, and set cut-off scores for abuse and

neglect classifications.[2] The revised abuse and neglect indices were developed separately, and results from both are used to determine the overall risk classification.[3] The primary maltreatment outcomes referenced during SDM assessment construction were (1) subsequent determination, because it provides the best evidence that abuse or neglect occurred and is employed as a child safety outcome by the Child and Family Services Review, and (2) subsequent assigned report, because SDM assessment rates were more similar across sample subgroups.

The revalidation effort resulted in a risk assessment that employs similar risk factors to the current one. The revised neglect risk assessment added three items: an assessment of parenting skills, caregiver's history of maltreatment as a child, and "Father, stepfather, boyfriend, or male roommate provides unsupervised child care to a child under the age of 3 and is not employed." It is important to remember that the latter item is one of many factors related to the likelihood of future harm based on easily observable group characteristics. The neglect items for number of caregivers in the home and allegation of educational neglect were removed. On the risk of abuse index, the item measuring a child with a developmental disability or delinquency history was altered and other items also were modified. For example, the cut points for number of children in the home were altered (see Appendix B for revised assessment details).

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[2] A variety of statistical methods could be used to conduct the analyses described. A study by Simon (1971) and an exhaustive study by Gottfredson and Gottfredson (1979), later substantiated by other researchers (Wilbanks, 1985; and Benda, 1987), found that less precise methods of statistical evaluation (including bivariate analyses or least squares regression) often produce better overall results. More recent studies support the earlier findings (Silver, Smith, & Banks, 2000).

[3] Previous research indicates that the family risk characteristics associated with child abuse differ from those related to neglect.

**D. Performance of the Revised Family Risk Assessment of Abuse/Neglect**

The following tables and figures review the revised risk assessment classification results for the construction sample, using the same maltreatment outcomes reviewed for assessing the performance of the current family risk assessment. Findings are shown for the revised neglect assessment, the revised abuse assessment, and then the overall risk classification.

1.      Revised Family Risk Assessment Classification Findings for Neglect

Among families classified as being at low risk of neglect, 12.2% had a subsequent assigned report of neglect compared with 23.9% of moderate-risk and 34.9% of high-risk families. When the
outcome was subsequent family investigation for neglect or subsequent determination for neglect, the rate at least doubled with each increase in risk level (Table 13).

| | Table 13 | | | | |
|---|---|---|---|---|---|
| | Revised Risk of Neglect Classification by Neglect Outcomes | | | | |
| | **Sample Distribution** | | **Outcomes During the 18-Month Follow-Up Period** | | |
| **Neglect Risk Level** | **N** | **%** | **Assigned Report for Neglect Any Type** | **Neglect Family Investigation** | **Neglect Determination** |
| Low | 4,200 | 50.6% | 12.2% | 3.2% | 1.7% |
| Moderate | 3,016 | 36.3% | 23.9% | 8.2% | 5.1% |
| High | 1,091 | 13.1% | 34.9% | 16.2% | 11.2% |
| **Total Sample** | **8,307** | **100.0%** | **19.4%** | **6.7%** | **4.2%** |

2.      Revised Family Risk Assessment Classification Findings for Abuse

When classified by the revised abuse risk assessment, the abuse outcomes of moderate-risk families that were nearly twice that of low-risk families. Families classified as being at high risk of abuse had an assigned report for abuse rate nearly three times greater and family investigation and abuse determination rates more than three times greater than those classified as being at low risk (Table 14).

| Table 14 | | | | | |
|---|---|---|---|---|---|
| Revised Risk of Abuse Classification by Abuse Outcomes | | | | | |
| Abuse Risk Level | Sample Distribution | | Outcomes During the 18-Month Follow-Up Period | | |
| | N | % | Assigned Report for Abuse Any Type | Abuse Family Investigation | Abuse Determination |
| Low | 4,690 | 56.5% | 8.1% | 3.2% | 1.2% |
| Moderate | 3,215 | 38.7% | 15.6% | 7.4% | 2.8% |
| High | 402 | 4.8% | 27.1% | 18.4% | 9.2% |
| Total Sample | 8,307 | 100.0% | 11.9% | 5.5% | 2.2% |

3.      Revised Family Risk Assessment Classification Findings for Any Maltreatment

As with the revised neglect and abuse risk indices, the revised risk assessment performed well when classifying all sampled families by the likelihood of maltreatment recurrence. Within 18 months of the sampled assessment, 17.0% of the sampled families classified as low risk had another family assessment or investigation compared with 27.8% of moderate-risk families and 40.2% of high-risk families. High-risk families had nearly five times the rate of subsequent family investigation compared with low-risk families, while moderate-risk families had a rate twice that

of low-risk families. When the outcome was subsequent determination, an increase in risk level corresponded to a two-fold increase between low and moderate risk and between moderate and high risk (Table 15).

| Table 15 | | | | | |
|---|---|---|---|---|---|
| Revised Overall Risk Classification by Maltreatment Outcomes | | | | | |
| Overall Risk Level | Sample Distribution | | Outcomes During the 18-Month Follow-Up Period | | |
| | N | % | Assigned Report Any Type | Family Investigation | Maltreatment Determination |
| Low | 3,057 | 36.8% | 17.0% | 4.5% | 2.4% |
| Moderate | 3,952 | 47.6% | 27.8% | 10.6% | 5.5% |
| High | 1,298 | 15.6% | 40.2% | 21.7% | 13.5% |
| Total Sample | 8,307 | 100.0% | 25.8% | 10.1% | 5.6% |

4.      Revised Family Risk Assessment Classification Findings by Type of Sampled Incident

As with the current risk assessment, families with a sampled family investigation were more likely to be classified by the revised assessment as being at high risk than were families with a sampled family assessment. Approximately 23% of families with a sampled family investigation were classified as being at high risk compared with 13.5% of families with a sampled family assessment. The revised risk assessment classified families with a sampled family assessment versus family investigation similarly by risk classification across the outcomes measured. Among families with a sampled family investigation, 11.8% of low-risk families had a subsequent assessment compared with 22.5% of moderate-risk and 35.2% of high-risk families. Corresponding rates for families with a sampled family assessment were 18.2% for low-risk families, 29.2% for moderate-risk, and 42.7% for high-risk families (Table 16).

| Table 16 | | | | | |
|---|---|---|---|---|---|
| **Revised Overall Risk Classification by Maltreatment Outcomes: Sample Incident Type** | | | | | |
| **Overall Risk Level** | **Sample Distribution** | | **Outcomes During the 18-Month Follow-Up Period** | | |
| | **N** | **%** | **Assigned Report Any Type** | **Family Investigation** | **Maltreatment Determination** |
| **Total Sample** | **8,307** | **100%** | **25.8%** | **10.1%** | **5.6%** |
| **Family Assessment** | | | | | |
| Low | 2,457 | 38.0% | 18.2% | 4.3% | 2.4% |
| Moderate | 3,133 | 48.5% | 29.2% | 10.1% | 5.6% |
| High | 872 | 13.5% | 42.7% | 21.1% | 13.9% |
| **Total Assessments** | **6,462** | **100.0%** | **26.9%** | **9.4%** | **5.5%** |
| **Family Investigation** | | | | | |
| Low | 600 | 32.5% | 11.8% | 5.5% | 2.0% |
| Moderate | 819 | 44.4% | 22.5% | 12.6% | 5.3% |
| High | 426 | 23.1% | 35.2% | 23.0% | 12.7% |
| **Total Investigations** | **1,845** | **100.0%** | **22.0%** | **12.7%** | **5.9%** |

5.      <u>Revised Family Risk Assessment Classification Findings by Race/Ethnicity</u>

Although the current and revised risk assessments classified families similarly overall, the revised risk assessment resulted in more similar risk classification findings by racial/ethnic groups than the current risk assessment. For all race/ethnic groups, an increase in risk level corresponded to a meaningful increase in the proportion experiencing recurrence across outcomes. Within each risk classification, the proportion with recurrence for American Indian/Alaska Native and Black/African American families tended to be higher than those observed for White/Caucasian and Hispanic/Latino families (Table 17). This is not unexpected given that American Indian/Alaska Native families overall had a higher proportion with subsequent CPS involvement.

When the outcome was subsequent report, low-risk American Indian/Alaska Native families' rates were more similar to those of moderate-risk families among other ethnic groups. DHS policies, however, indicate that high-risk cases should be opened while low- and moderate-risk cases should be closed (unless extenuating circumstances apply). The similarity between follow-up assessment rates for low- and moderate-risk cases, therefore, has minimal policy implications. Policy implications would be greater if moderate-risk outcomes approached those of high-risk families (Table 17).

| | **Table 17** | | | | |
|---|---|---|---|---|---|
| | **Revised Overall Risk Classification by Maltreatment Outcomes: Race/Ethnicity** | | | | |
| **Overall Risk Level** | **Sample Distribution** | | **Outcomes During the 18-Month Follow-Up Period** | | |
| | **N** | **%** | **Assigned Report Any Type** | **Family Investigation** | **Maltreatment Determination** |
| **Total Sample** | **8,307** | **100%** | **25.8%** | **10.1%** | **5.6%** |
| **White/Caucasian** | | | | | |
| Low | 1,663 | 36.2% | 16.7% | 4.3% | 1.7% |
| Moderate | 2,210 | 48.1% | 28.3% | 9.9% | 4.5% |
| High | 717 | 15.6% | 37.5% | 19.1% | 10.7% |
| **Subtotal** | **4,590** | **100.0%** | **25.5%** | **9.3%** | **4.5%** |
| **Black/African American** | | | | | |
| Low | 651 | 38.1% | 17.7% | 5.2% | 4.1% |
| Moderate | 812 | 47.6% | 28.2% | 12.3% | 7.9% |
| High | 244 | 14.3% | 46.3% | 29.5% | 20.5% |
| **Subtotal** | **1,707** | **100.0%** | **26.8%** | **12.1%** | **8.3%** |
| **Hispanic/Latino** | | | | | |
| Low | 332 | 37.6% | 16.0% | 4.5% | 2.4% |
| Moderate | 427 | 48.4% | 23.9% | 9.1% | 5.2% |
| High | 123 | 13.9% | 40.7% | 20.3% | 13.8% |
| **Subtotal** | **882** | **100.0%** | **23.2%** | **9.0%** | **5.3%** |

| Table 17 | | | | | |
|---|---|---|---|---|---|
| **Revised Overall Risk Classification by Maltreatment Outcomes: Race/Ethnicity** | | | | | |
| **Overall Risk Level** | **Sample Distribution** | | **Outcomes During the 18-Month Follow-Up Period** | | |
| | **N** | **%** | **Assigned Report Any Type** | **Family Investigation** | **Maltreatment Determination** |
| **Total Sample** | **8,307** | **100%** | **25.8%** | **10.1%** | **5.6%** |
| **American Indian/Alaska Native** | | | | | |
| Low | 202 | 27.8% | 25.7% | 7.4% | 3.5% |
| Moderate | 351 | 48.3% | 35.3% | 15.4% | 7.7% |
| High | 174 | 23.9% | 42.5% | 23.6% | 15.5% |
| **Subtotal** | **727** | **100.0%** | **34.4%** | **15.1%** | **8.4%** |

## IV.     SUMMARY

### A.     Summary of Findings

The goals of the current research effort were to determine whether supplemental items related to male caregivers providing unsupervised child care could improve the classification abilities of the current assessment and to ensure that the risk assessment accurately and equitably classified families by the likelihood of future child maltreatment. Results showed that the risk classification demonstrated validity for the overall sample, but very few Native American families were classified as low risk.

CRC researchers conducted independent development of an alternative risk assessment that included testing the potential risk factors identified in child fatality research. The revised family risk assessment classified fewer families as being at high or moderate risk and more families as being at low risk than the current risk assessment; it also achieved the same or greater distinction between risk classifications than the current assessment (Table 18). The

revised risk assessment also resulted in similar distributions by risk classification across

racial/ethnic subgroups (not shown).

| Table 18 | | | | | |
|---|---|---|---|---|---|
| **Current and Revised Risk Classifications by Subsequent Maltreatment Outcomes** | | | | | |
| **Overall Risk Level** | **Sample Distribution** | | **Outcomes During the 18-Month Follow-Up Period** | | |
| | **N** | **%** | **Assigned Report Any Type** | **Family Investigation** | **Maltreatment Determination** |
| **Current Risk Assessment** | | | | | |
| Low | 1,314 | 15.8% | 13.5% | 3.3% | 1.8% |
| Moderate | 4,738 | 57.0% | 23.9% | 8.1% | 4.2% |
| High | 2,255 | 27.1% | 36.9% | 18.2% | 10.7% |
| **Total Sample** | **8,307** | **100%** | **25.8%** | **10.1%** | **5.6%** |
| **Revised Risk Assessment** | | | | | |
| Low | 3,057 | 36.8% | 17.0% | 4.5% | 2.4% |
| Moderate | 3,952 | 47.6% | 27.8% | 10.6% | 5.5% |
| High | 1,298 | 15.6% | 40.2% | 21.7% | 13.5% |
| **Total Sample** | **8,307** | **100%** | **25.8%** | **10.1%** | **5.6%** |

CRC recommends that DHS implement the revised risk assessment. Doing so should help

improve workers' estimates of a family's risk of future maltreatment and, in turn, permit the

agency to reduce subsequent maltreatment by more effectively targeting service interventions

to families classified as being at high risk.

DHS now allows workers to override the scored risk classification up or down one level

with supervisory approval. This practice essentially provides risk information to workers and

supervisors while allowing them to make the final risk evaluation based on clinical observations

(Swets, Dawes, & Monahan, 2000). If an override reason is appropriate, well-documented, and

relates to factors not already accounted for in the actuarial risk estimate, workers should be able

to override risk up or down. Understanding the reasons for workers' overrides and service

decisions may lead to more accurate SSIS assessment information and help DHS understand

how to better support effective targeting of resources.

**B.        Risk Assessment Practice Considerations**

A dichotomous decision such as whether to open a case is not necessarily the best use of

an actuarial risk assessment's potential. An actuarial risk assessment yields a score that is on a

continuum; as the score increases, so does the likelihood of future child maltreatment. By

identifying groups with lower-than-average, average, and higher-than-average likelihood of

future child maltreatment, an actuarial risk assessment can summarize key investigation

information into what is currently the most reliable and valid estimate of the risk of future harm

(Shlonsky & Wagner, 2005). Workers can use this to make appropriate decisions about the

service intensity level needed for each group.

Research indicates that actuarial risk-based contact standards such as those

recommended by DHS are effective in reducing the overall likelihood of a critical event. A quasi-

experimental study conducted in Michigan evaluated the effectiveness of a structured decision-

making case management approach in child protective services (Wagner, Hull, & Luttrell, 1995).

Workers in pilot counties completed a validated actuarial risk assessment at the end of an

investigation that informed the decision of whether to open a case and, more importantly,

prescribed monthly contact standards that increased as the risk level increased. Outcomes

showed a significant reduction in the overall maltreatment rates for pilot counties versus

comparison counties. A study of four Wisconsin counties showed similar findings (Wagner & Bell, 1998).

Completed risk assessments help DHS more accurately estimate a family's risk of future maltreatment and direct limited resources to families at highest risk. But accurate risk assessment can only be used to target these resources—and thereby reduce subsequent maltreatment—if workers have the necessary assessment and engagement skills and if DHS integrates the risk assessment's use as a decision-making tool into agency practice. DHS may wish to support risk assessment implementation by employing efforts used by other jurisdictions, such as integrating the assessments into case conferences, using definitions and reliability testing to ensure consistent decision making across supervisors, and integrating assessment scoring and information consistency checks into quality improvement efforts.

The current validation was limited to information collected in SSIS. Collecting supplemental items of interest with SSIS, as was done with the current risk assessment, would allow DHS staff to examine additional information in future validations. Periodic validations are required to ensure that risk assessments continue to effectively classify families by their likelihood of future child maltreatment. If DHS operations change significantly in the next few years, another validation study is recommended to ensure that the risk assessment is effectively classifying families.

**Appendix A**


**Current SDM® Family Risk Assessment of Abuse/Neglect and Item Analysis**

| Case Name: | | Case #: | | Current Date: | |
| --- | --- | --- | --- | --- | --- |
| Worker Name: | | Worker #: | | Date Report Received: | |

## NEGLECT — SCORE

**N1. Current report is for neglect**
  a. No ............................................................ 0
  b. Yes ........................................................... 1 ☐

**N2. Current report is for educational neglect**
  a. No ............................................................ 0
  b. Yes ........................................................... 1 ☐

**N3. Number of prior assigned reports**
  a. None .......................................................... 0
  b. One or more .................................................. 1 ☐

**N4. Prior CPS history**
  a. Not applicable ............................................... 0
  b. Prior determination for neglect *and/or* prior investigation resulted
     in case opening ............................................. 1 ☐

**N5. Number of children in the home**
  a. One ........................................................... 0
  b. Two or more .................................................. 1 ☐

**N6. Age of youngest child**
  a. 3 or older ................................................... 0
  b. 2 or younger ................................................ 1 ☐

**N7. Child in the home has a developmental disability/emotional impairment**
  a. No ............................................................ 0
  b. Yes ........................................................... 1 ☐

**N8. Number of adults in home at time of report**
  a. Two or more .................................................. 0
  b. One or none .................................................. 1 ☐

**N9. Age of primary caregiver**
  a. 30 or older .................................................. 0
  b. 29 or younger ............................................... 1 ☐

**N10. Either caregiver has a history of domestic violence**
  a. No ............................................................ 0
  b. Yes ........................................................... 1 ☐

**N11. Either caregiver has/had an alcohol or drug problem during the last 12 months**
  a. No ............................................................ 0
  b. Yes ........................................................... 1 ☐

**N12. Primary caregiver has/had a mental health problem**
  a. No ............................................................ 0
  b. Yes ........................................................... 1 ☐

**TOTAL NEGLECT RISK SCORE** ☐

**S1. Father, stepfather, boyfriend, or male roommate provides unsupervised child care to a child under the age of 3**
  ☐ a. No
  ☐ b. Yes
  ☐ c. Not applicable—no father, stepfather, boyfriend, or male roommate in the home

**S2. If yes, is the father, stepfather, boyfriend, or male roommate employed?**
  ☐ a. No
  ☐ b. Yes

## ABUSE — SCORE

**A1. Current report is for abuse**
  a. No ............................................................ 0
  b. Yes, allegation of abuse, any type ......................... 1 ☐

**A2. Current report results in determination of physical abuse**
  a. No ............................................................ 0
  b. Yes ........................................................... 1 ☐

**A3. Number of prior assigned reports of abuse**
  a. None .......................................................... 0
  b. One or more .................................................. 1 ☐

**A4. Prior investigation resulted in case opening**
  a. No ............................................................ 0
  b. Yes ........................................................... 1 ☐

**A5. Number of children in the home**
  a. One ........................................................... -1
  b. Two to three ................................................. 0
  c. Four or more ................................................. 1 ☐

**A6. Either caregiver was abused as a child**
  a. No ............................................................ 0
  b. Yes ........................................................... 1 ☐

**A7. Primary caregiver lacks parenting skills**
  a. No ............................................................ 0
  b. Yes ........................................................... 1 ☐

**A8. Either caregiver employs harmful and/or developmentally inappropriate discipline**
  a. No ............................................................ 0
  b. Yes ........................................................... 1 ☐

**A9. Either caregiver has a history of domestic violence**
  a. No ............................................................ 0
  b. Yes ........................................................... 1 ☐

**A10. Either caregiver's parenting style is over-controlling**
  a. No ............................................................ 0
  b. Yes ........................................................... 1 ☐

**A11. Child in the home has a developmental disability or history of delinquency**
  a. No ............................................................ 0
  b. Developmental disability including emotional impairment . 2
  c. History of delinquency ...................................... 2
  d. Developmental disability including emotional impairment **and** history of delinquency ......................... 2 ☐

**A12. Primary caregiver has/had a mental health problem**
  a. No ............................................................ 0
  b. Yes ........................................................... 1 ☐

**A13. Alleged offender is an unmarried partner of the primary caregiver**
  a. No ............................................................ 0
  b. Yes ........................................................... 1 ☐

**TOTAL ABUSE RISK SCORE** ☐

**RISK LEVEL**: Assign the family's risk level based on the highest score on either index, using the following chart:

| Neglect Score | Abuse Score | Risk Level |
| --- | --- | --- |
| O 0 – 2 | O -1 – 2 | O Low |
| O 3 – 5 | O 3 – 5 | O Moderate |
| O 6 – 12 | O 6 – 14 | O High |

**OVERRIDES.** Policy: Increase to high risk.
  ☐ 1. Sexual abuse cases where the perpetrator is likely to have access to the child victim.
  ☐ 2. Cases with non-accidental physical injury to an infant.
  ☐ 3. Serious non-accidental physical injury requiring hospital or medical treatment.
  ☐ 4. Death (previous or current) of a sibling as a result of abuse or neglect.

Discretionary: Increase one level.
  ☐ 5. Reason: _____

**FINAL RISK LEVEL:**    O Low    O Moderate    O High

**Supervisor Review/Approval:** _____  **Date:** _____

A1

**CURRENT SDM® Family Risk Assessment of Abuse/Neglect**
**Neglect Index Item Analysis**

| Item | Sample Distribution | | 18-Month Neglect Outcomes | | | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| | | | Assigned Report for Neglect Any Type | | | | Neglect Family Investigation | | | | Neglect Determination | | | |
| | N | % | N | % | Corr. | P value | N | % | Corr. | P value | N | % | Corr. | P value |
| **Total Sample** | 8,307 | 100.0% | 1,612 | 19.4% | | | 558 | 6.7% | | | 347 | 4.2% | | |
| **N1. Current report is for neglect** | | | | | 0.122 | 0.001 | | | 0.088 | 0.001 | | | 0.072 | 0.001 |
| No | 3,567 | 42.9% | 494 | 13.8% | | | 149 | 4.2% | | | 90 | 2.5% | | |
| Yes | 4,740 | 57.1% | 1,118 | 23.6% | | | 409 | 8.6% | | | 257 | 5.4% | | |
| **N2. Current report is for educational neglect** | | | | | 0.079 | 0.001 | | | 0.034 | 0.001 | | | 0.041 | 0.001 |
| No | 7,550 | 90.9% | 1,390 | 18.4% | | | 487 | 6.5% | | | 296 | 3.9% | | |
| Yes | 757 | 9.1% | 222 | 29.3% | | | 71 | 9.4% | | | 51 | 6.7% | | |
| **N3. Number of prior assigned reports** | | | | | 0.130 | 0.001 | | | 0.123 | 0.001 | | | 0.105 | 0.001 |
| None | 4,818 | 58.0% | 724 | 15.0% | | | 197 | 4.1% | | | 115 | 2.4% | | |
| One or more | 3,489 | 42.0% | 888 | 25.5% | | | 361 | 10.3% | | | 232 | 6.6% | | |
| **N4. Prior CPS history** | | | | | 0.101 | 0.001 | | | 0.136 | 0.001 | | | 0.125 | 0.001 |
| Not applicable | 7,048 | 84.8% | 1,249 | 17.7% | | | 372 | 5.3% | | | 220 | 3.1% | | |
| Prior determination for neglect *and/or* prior investigation resulted in case opening | 1,259 | 15.2% | 363 | 28.8% | | | 186 | 14.8% | | | 127 | 10.1% | | |
| **N5. Number of children in the home** | | | | | 0.029 | 0.004 | | | 0.024 | 0.014 | | | 0.014 | 0.104 |
| One | 2,503 | 30.1% | 442 | 17.7% | | | 145 | 5.8% | | | 94 | 3.8% | | |
| Two or more | 5,804 | 69.9% | 1,170 | 20.2% | | | 413 | 7.1% | | | 253 | 4.4% | | |
| **N6. Age of youngest child** | | | | | 0.067 | 0.001 | | | 0.062 | 0.001 | | | 0.053 | 0.001 |
| 3 or older | 5,184 | 62.4% | 900 | 17.4% | | | 286 | 5.5% | | | 174 | 3.4% | | |
| 2 or younger | 3,123 | 37.6% | 712 | 22.8% | | | 272 | 8.7% | | | 173 | 5.5% | | |
| **N7. Child in home has a developmental disability/emotional impairment** | | | | | 0.028 | 0.005 | | | 0.022 | 0.023 | | | 0.022 | 0.024 |
| No | 6,148 | 74.0% | 1,152 | 18.7% | | | 393 | 6.4% | | | 241 | 3.9% | | |
| Yes | 2,159 | 26.0% | 460 | 21.3% | | | 165 | 7.6% | | | 106 | 4.9% | | |

**CURRENT SDM® Family Risk Assessment of Abuse/Neglect**
**Neglect Index Item Analysis**

| Item | Sample Distribution | | 18-Month Neglect Outcomes | | | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| | | | Assigned Report for Neglect Any Type | | | | Neglect Family Investigation | | | | Neglect Determination | | | |
| | N | % | N | % | Corr. | P value | N | % | Corr. | P value | N | % | Corr. | P value |
| **Total Sample** | **8,307** | **100.0%** | **1,612** | **19.4%** | | | **558** | **6.7%** | | | **347** | **4.2%** | | |
| **N8. Number of adults in home at time of report** | | | | | 0.048 | 0.001 | | | 0.022 | 0.024 | | | 0.018 | 0.048 |
| Two or more | 5,514 | 66.4% | 995 | 18.0% | | | 349 | 6.3% | | | 216 | 3.9% | | |
| One or none | 2,793 | 33.6% | 617 | 22.1% | | | 209 | 7.5% | | | 131 | 4.7% | | |
| **N9. Age of primary caregiver** | | | | | 0.081 | 0.001 | | | 0.042 | 0.001 | | | 0.035 | 0.001 |
| 30 or older | 5,307 | 63.9% | 902 | 17.0% | | | 315 | 5.9% | | | 194 | 3.7% | | |
| 29 or younger | 3,000 | 36.1% | 710 | 23.7% | | | 243 | 8.1% | | | 153 | 5.1% | | |
| **N10. Either caregiver has a history of domestic violence** | | | | | 0.083 | 0.001 | | | 0.069 | 0.001 | | | 0.063 | 0.001 |
| No | 5,456 | 65.7% | 929 | 17.0% | | | 298 | 5.5% | | | 178 | 3.3% | | |
| Yes | 2,851 | 34.3% | 683 | 24.0% | | | 260 | 9.1% | | | 169 | 5.9% | | |
| **N11. Either caregiver has/had an alcohol or drug problem during the last 12 months** | | | | | 0.046 | 0.001 | | | 0.057 | 0.001 | | | 0.049 | 0.001 |
| No | 6,329 | 76.2% | 1,164 | 18.4% | | | 375 | 5.9% | | | 230 | 3.6% | | |
| Yes | 1,978 | 23.8% | 448 | 22.6% | | | 183 | 9.3% | | | 117 | 5.9% | | |
| **N12. Primary caregiver has/had a mental health problem** | | | | | 0.110 | 0.001 | | | 0.078 | 0.001 | | | 0.064 | 0.001 |
| No | 6,127 | 73.8% | 1,030 | 16.8% | | | 340 | 5.5% | | | 209 | 3.4% | | |
| Yes | 2,180 | 26.2% | 582 | 26.7% | | | 218 | 10.0% | | | 138 | 6.3% | | |

| Item | Sample Distribution | | Assigned Report for Abuse Any Type | | | | Abuse Family Investigation | | | | Abuse Determination | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | N | % | N | % | Corr. | P value | N | % | Corr. | P value | N | % | Corr. | P value |
| **Total Sample** | **8,307** | **100.0%** | **992** | **11.9%** | | | **461** | **5.5%** | | | **185** | **2.2%** | | |
| **A1. Current report is for abuse** | | | | | 0.073 | 0.001 | | | 0.040 | 0.001 | | | 0.028 | 0.006 |
| No | 4,750 | 57.2% | 470 | 9.9% | | | 226 | 4.8% | | | 89 | 1.9% | | |
| Yes, allegation of abuse, any type | 3,557 | 42.8% | 522 | 14.7% | | | 235 | 6.6% | | | 96 | 2.7% | | |
| **A2. Current report results in determination of physical abuse** | | | | | 0.024 | 0.013 | | | 0.034 | 0.001 | | | 0.042 | 0.001 |
| No | 7,964 | 95.9% | 938 | 11.8% | | | 429 | 5.4% | | | 167 | 2.1% | | |
| Yes | 343 | 4.1% | 54 | 15.7% | | | 32 | 9.3% | | | 18 | 5.2% | | |
| **A3. Number of prior assigned reports of abuse** | | | | | 0.124 | 0.001 | | | 0.121 | 0.001 | | | 0.078 | 0.001 |
| None | 6,688 | 80.5% | 666 | 10.0% | | | 280 | 4.2% | | | 111 | 1.7% | | |
| One or more | 1,619 | 19.5% | 326 | 20.1% | | | 181 | 11.2% | | | 74 | 4.6% | | |
| **A4. Prior investigation resulted in case opening** | | | | | 0.053 | 0.001 | | | 0.760 | 0.001 | | | 0.066 | 0.001 |
| No | 7,178 | 86.4% | 808 | 11.3% | | | 349 | 4.9% | | | 132 | 1.8% | | |
| Yes | 1,129 | 13.6% | 184 | 16.3% | | | 112 | 9.9% | | | 53 | 4.7% | | |
| **A5. Number of children in the home** | | | | | 0.057 | 0.001 | | | 0.051 | 0.001 | | | 0.050 | 0.001 |
| One | 2,470 | 29.7% | 241 | 9.8% | | | 109 | 4.4% | | | 39 | 1.6% | | |
| Two to three | 4,472 | 53.8% | 539 | 12.1% | | | 240 | 5.4% | | | 91 | 2.0% | | |
| Four or more | 1,365 | 16.4% | 212 | 15.5% | | | 112 | 8.2% | | | 55 | 4.0% | | |
| **A6. Either caregiver was abused as a child** | | | | | 0.081 | 0.001 | | | 0.091 | 0.001 | | | 0.047 | 0.001 |
| No | 6,750 | 81.3% | 721 | 10.7% | | | 307 | 4.5% | | | 128 | 1.9% | | |
| Yes | 1,557 | 18.7% | 271 | 17.4% | | | 154 | 9.9% | | | 57 | 3.7% | | |
| **A7. Primary caregiver lacks parenting skills** | | | | | 0.062 | 0.001 | | | 0.059 | 0.001 | | | 0.047 | 0.001 |
| No | 6,129 | 73.8% | 659 | 10.8% | | | 291 | 4.7% | | | 111 | 1.8% | | |
| Yes | 2,178 | 26.2% | 333 | 15.3% | | | 170 | 7.8% | | | 74 | 3.4% | | |
| **A8. Either caregiver employs harmful and/or developmentally inappropriate discipline** | | | | | 0.065 | 0.001 | | | 0.051 | 0.001 | | | 0.040 | 0.001 |
| No | 7,548 | 90.9% | 851 | 11.3% | | | 391 | 5.2% | | | 154 | 2.0% | | |
| Yes | 759 | 9.1% | 141 | 18.6% | | | 70 | 9.2% | | | 31 | 4.1% | | |

**CURRENT SDM® Family Risk Assessment of Abuse/Neglect**
**Abuse Index Item Analysis**

| Item | Sample Distribution | | 18-Month Abuse Outcomes | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Assigned Report for Abuse Any Type | | | | Abuse Family Investigation | | | | Abuse Determination | | | |
| | N | % | N | % | Corr. | P value | N | % | Corr. | P value | N | % | Corr. | P value |
| **Total Sample** | **8,307** | **100.0%** | **992** | **11.9%** | | | **461** | **5.5%** | | | **185** | **2.2%** | | |
| **A9. Either caregiver has a history of domestic violence** | | | | | 0.076 | 0.001 | | | 0.078 | 0.001 | | | 0.048 | 0.001 |
| No | 5,477 | 65.9% | 557 | 10.2% | | | 234 | 4.3% | | | 94 | 1.7% | | |
| Yes | 2,830 | 34.1% | 435 | 15.4% | | | 227 | 8.0% | | | 91 | 3.2% | | |
| **A10. Either caregiver's parenting style is over-controlling** | | | | | 0.060 | 0.001 | | | 0.060 | 0.001 | | | 0.042 | 0.001 |
| No | 7,877 | 94.8% | 905 | 11.5% | | | 412 | 5.2% | | | 164 | 2.1% | | |
| Yes | 430 | 5.2% | 87 | 20.2% | | | 49 | 11.4% | | | 21 | 4.9% | | |
| **A11. Child in the home has a developmental disability or history of delinquency** | | | | | 0.071 | 0.001 | | | 0.053 | 0.001 | | | 0.040 | 0.001 |
| No | 6,286 | 75.7% | 669 | 10.6% | | | 306 | 4.9% | | | 119 | 1.9% | | |
| One or more apply | 2,021 | 24.3% | 323 | 16.0% | | | 155 | 7.7% | | | 66 | 3.3% | | |
| Developmental disability including emotional impairment only | | | | | 0.078 | 0.001 | | | 0.056 | 0.001 | | | 0.042 | 0.001 |
| No | 6,632 | 79.8% | 708 | 10.7% | | | 325 | 4.9% | | | 127 | 1.9% | | |
| Yes | 1,675 | 20.2% | 284 | 17.0% | | | 136 | 8.1% | | | 58 | 3.5% | | |
| History of delinquency only | | | | | -0.015 | 0.091 | | | -0.006 | 0.299 | | | -0.007 | 0.264 |
| No | 8,115 | 97.7% | 975 | 12.0% | | | 452 | 5.6% | | | 182 | 2.2% | | |
| Yes | 192 | 2.3% | 17 | 8.9% | | | 9 | 4.7% | | | 3 | 1.6% | | |
| Developmental disability including emotional impairment **and** history of delinquency | | | | | 0.010 | 0.183 | | | 0.006 | 0.303 | | | 0.009 | 0.193 |
| No | 8,153 | 98.1% | 970 | 11.9% | | | 451 | 5.5% | | | 180 | 2.2% | | |
| Yes | 154 | 1.9% | 22 | 14.3% | | | 10 | 6.5% | | | 5 | 3.2% | | |
| **A12. Primary caregiver has/had a mental health problem** | | | | | 0.056 | 0.001 | | | 0.067 | 0.001 | | | 0.055 | 0.001 |
| No | 6,143 | 73.9% | 667 | 10.9% | | | 285 | 4.6% | | | 107 | 1.7% | | |
| Yes | 2,164 | 26.1% | 325 | 15.0% | | | 176 | 8.1% | | | 78 | 3.6% | | |
| **A13. Alleged offender is an unmarried partner of the primary caregiver** | | | | | 0.035 | 0.001 | | | 0.037 | 0.001 | | | 0.022 | 0.025 |
| No | 6,950 | 83.7% | 795 | 11.4% | | | 360 | 5.2% | | | 145 | 2.1% | | |
| Yes | 1,357 | 16.3% | 197 | 14.5% | | | 101 | 7.4% | | | 40 | 2.9% | | |

**Appendix B**


**Revised SDM® Family Risk Assessment of Abuse/Neglect,
Definitions, and Item Analysis**

| Case Name: | | Case #: | | Current Date: | |
|---|---|---|---|---|---|
| Worker Name: | | Worker #: | | Date Report Received: | |

**NEGLECT**                                                                                                           SCORE

**N1. Current report is for neglect**
    a.  No............................................................ 0
    b.  Yes...........................................................1

**N2. Number of prior assigned reports**
    a.  None........................................................ 0
    b.  One or more............................................1

**N3. Prior CPS history**
    a.  Not applicable ...................................... 0
    b.  Prior determination for neglect *and/or* prior investigation resulted
        in case opening............................................1

**N4. Number of children in the home**
    a.  One or two ............................................. 0
    b.  Three or more ........................................ 2

**N5. Age of youngest child**
    a.  3 or older............................................... 0
    b.  2 or younger..........................................1

**N6. Child in the home has a developmental disability/emotional impairment**
    a.  No............................................................ 0
    b.  Yes...........................................................1

**N7. Primary caregiver lacks parenting skills**
    a.  No............................................................ 0
    b.  Yes...........................................................1

**N8. Age of primary caregiver**
    a.  30 or older............................................. 0
    b.  29 or younger.........................................1

**N9. Either caregiver was abused as a child**
    a.  No............................................................ 0
    b.  Yes...........................................................1

**N10. Either caregiver has a history of domestic violence**
    a.  No............................................................ 0
    b.  Yes...........................................................1

**N11. Either caregiver has/had an alcohol or drug problem during the last 12 months**
    a.  No............................................................ 0
    b.  Yes...........................................................1

**N12. Primary caregiver has/had a mental health problem**
    a.  No............................................................ 0
    b.  Yes...........................................................1

**N13. Father, stepfather, boyfriend, or male roommate provides unsupervised child care to a child under the age of 3 and is not employed**
    a.  No............................................................ 0
    b.  Yes...........................................................1

**TOTAL NEGLECT RISK SCORE**

---

**ABUSE**                                                                                                           SCORE

**A1. Current report is for abuse**
    a.  No............................................................0
    b.  Yes, allegation of abuse, any type.....................1

**A2. Current report results in determination of physical abuse**
    a.  No ............................................................0
    b.  Yes ...........................................................1

**A3. Number of prior assigned reports of abuse**
    a.  None .........................................................0
    b.  One or more .............................................1

**A4. Prior investigation resulted in case opening**
    a.  No ............................................................0
    b.  Yes ...........................................................1

**A5. Number of children in the home**
    a.  One to three ............................................0
    b.  Four or more ............................................1

**A6. Either caregiver was abused as a child**
    a.  No ............................................................0
    b.  Yes ...........................................................1

**A7. Primary caregiver lacks parenting skills**
    a.  No ............................................................0
    b.  Yes ...........................................................1

**A8. Either caregiver employs harmful and/or developmentally inappropriate discipline**
    a.  No ............................................................0
    b.  Yes ...........................................................1

**A9. Either caregiver has a history of domestic violence**
    a.  No ............................................................0
    b.  Yes ...........................................................1

**A10. Either caregiver's parenting style is over-controlling**
    a.  No ............................................................0
    b.  Yes ...........................................................2

**A11. Child in the home has a developmental disability/emotional impairment**
    a.  No ............................................................0
    b.  Yes ...........................................................1

**A12. Primary caregiver has/had a mental health problem**
    a.  No ............................................................0
    b.  Yes ...........................................................1

**A13. Alleged offender is an unmarried partner of the primary caregiver**
    a.  No ............................................................0
    b.  Yes ...........................................................1

**TOTAL ABUSE RISK SCORE**

---

**RISK LEVEL**: Assign the family's risk level based on the highest score on either index, using the following chart:

| Neglect Score | Abuse Score | Risk Level |
|---|---|---|
| ○ 0 – 3 | ○ -0 – 2 | ○ Low |
| ○ 4 – 6 | ○ 3 – 6 | ○ Moderate |
| ○ 7 – 12 | ○ 7 – 14 | ○ High |

**OVERRIDES.** Policy: Increase to high risk.
☐  1.  Sexual abuse cases where the perpetrator is likely to have access to the child victim.
☐  2.  Cases with non-accidental physical injury to an infant.
☐  3.  Serious non-accidental physical injury requiring hospital or medical treatment.
☐  4.  Death (previous or current) of a sibling as a result of abuse or neglect.

Discretionary: Increase or decrease one level with supervisory consent.

☐  5.  Reason:

**FINAL RISK LEVEL**:    ○ Low    ○ Moderate    ○ High

**Supervisor Review/Approval:**                Date:

# MINNESOTA DEPARTMENT OF HUMAN SERVICES
## *REVISED* SDM® FAMILY RISK ASSESSMENT OF ABUSE/NEGLECT
## DEFINITIONS

The following are risk factors with significant definition changes.

## NEGLECT

**N13.** **Father, stepfather, boyfriend, or male roommate provides unsupervised child care to a child under the age of 3 and is not employed**.

- <u>No</u>. There is no father, stepfather, boyfriend, or male roommate providing unsupervised care to a child in the household under the age of 3 who is also <u>not</u> employed.

- <u>Yes</u>. There is a father, stepfather, boyfriend, or male roommate providing unsupervised care to a child in the household under the age of 3 who is <u>not</u> employed.

## ABUSE

**A11.** **Child in the home has a developmental disability/emotional impairment**.

- <u>No</u>. No children with a developmental disability, including emotional impairment, are in the home.

- <u>Yes</u>. One or more children have a developmental disability, including emotional impairment. There is evidence that a child has a special need, including mental retardation, attention deficit disorder, learning disability, or emotional impairment.

*REVISED* SDM® **Family Risk Assessment of Abuse/Neglect**
**Neglect Index Item Analysis**

| Item | Sample Distribution | | 18-Month Neglect Outcomes | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Assigned Report for Neglect Any Type | | | | Neglect Family Investigation | | | | Neglect Determination | | | |
| | N | % | N | % | Corr. | P value | N | % | Corr. | P value | N | % | Corr. | P value |
| **Total Sample** | **8,307** | **100.0%** | **1,612** | **19.4%** | | | **558** | **6.7%** | | | **347** | **4.2%** | | |
| **N1. Current report is for neglect** | | | | | 0.122 | 0.001 | | | 0.088 | 0.001 | | | 0.072 | 0.001 |
| No | 3,567 | 42.9% | 494 | 13.8% | | | 149 | 4.2% | | | 90 | 2.5% | | |
| Yes | 4,740 | 57.1% | 1,118 | 23.6% | | | 409 | 8.6% | | | 257 | 5.4% | | |
| **N2. Number of prior assigned reports** | | | | | 0.130 | 0.001 | | | 0.123 | 0.001 | | | 0.105 | 0.001 |
| None | 4,818 | 58.0% | 724 | 15.0% | | | 197 | 4.1% | | | 115 | 2.4% | | |
| One or more | 3,489 | 42.0% | 888 | 25.5% | | | 361 | 10.3% | | | 232 | 6.6% | | |
| **N3. Prior CPS history** | | | | | 0.101 | 0.001 | | | 0.136 | 0.001 | | | 0.125 | 0.001 |
| Not applicable | 7,048 | 84.8% | 1,249 | 17.7% | | | 372 | 5.3% | | | 220 | 3.1% | | |
| Prior determination for neglect *and/or* prior investigation resulted in case opening | 1,259 | 15.2% | 363 | 28.8% | | | 186 | 14.8% | | | 127 | 10.1% | | |
| **N4. Number of children in the home** | | | | | .149 | 0.001 | | | .106 | 0.001 | | | 0.081 | 0.001 |
| Two or one | 7,369 | 88.7% | 1,275 | 17.3% | | | 425 | 5.8% | | | 265 | 3.6% | | |
| Three or more | 938 | 11.3% | 337 | 35.9% | | | 133 | 14.2% | | | 82 | 8.7% | | |
| **N5. Age of youngest child** | | | | | 0.067 | 0.001 | | | 0.062 | 0.001 | | | 0.053 | 0.001 |
| 3 or older | 5,184 | 62.4% | 900 | 17.4% | | | 286 | 5.5% | | | 174 | 3.4% | | |
| 2 or younger | 3,123 | 37.6% | 712 | 22.8% | | | 272 | 8.7% | | | 173 | 5.5% | | |
| **N6. Child in home has a developmental disability/emotional impairment** | | | | | 0.028 | 0.005 | | | 0.022 | 0.023 | | | 0.022 | 0.024 |
| No | 6,148 | 74.0% | 1,152 | 18.7% | | | 393 | 6.4% | | | 241 | 3.9% | | |
| Yes | 2,159 | 26.0% | 460 | 21.3% | | | 165 | 7.6% | | | 106 | 4.9% | | |
| **N7. Primary caregiver lacks parenting skills** | | | | | 0.063 | 0.001 | | | 0.064 | 0.001 | | | 0.062 | 0.001 |
| No | 6,129 | 73.8% | 1,098 | 17.9% | | | 353 | 5.8% | | | 211 | 3.4% | | |
| Yes | 2,178 | 26.2% | 514 | 23.6% | | | 205 | 9.4% | | | 136 | 6.2% | | |

**Table B1**

*REVISED* SDM® Family Risk Assessment of Abuse/Neglect
**Neglect Index Item Analysis**

| Item | Sample Distribution | | 18-Month Neglect Outcomes | | | | | | | | | | | |
| | | | Assigned Report for Neglect Any Type | | | | Neglect Family Investigation | | | | Neglect Determination | | | |
| | N | % | N | % | Corr. | P value | N | % | Corr. | P value | N | % | Corr. | P value |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total Sample** | **8,307** | **100.0%** | **1,612** | **19.4%** | | | **558** | **6.7%** | | | **347** | **4.2%** | | |
| **N8. Age of primary caregiver** | | | | | 0.081 | 0.001 | | | 0.042 | 0.001 | | | 0.035 | 0.001 |
| 30 or older | 5,307 | 63.9% | 902 | 17.0% | | | 315 | 5.9% | | | 194 | 3.7% | | |
| 29 or younger | 3,000 | 36.1% | 710 | 23.7% | | | 243 | 8.1% | | | 153 | 5.1% | | |
| **N9. Either caregiver was abused as a child** | | | | | 0.062 | 0.001 | | | 0.066 | 0.001 | | | 0.062 | 0.001 |
| No | 6,750 | 81.3% | 1,230 | 18.2% | | | 400 | 5.9% | | | 242 | 3.6% | | |
| Yes | 1,557 | 18.7% | 382 | 24.5% | | | 158 | 10.1% | | | 105 | 6.7% | | |
| **N10. Either caregiver has a history of domestic violence** | | | | | 0.083 | 0.001 | | | 0.069 | 0.001 | | | 0.063 | 0.001 |
| No | 5,456 | 65.7% | 929 | 17.0% | | | 298 | 5.5% | | | 178 | 3.3% | | |
| Yes | 2,851 | 34.3% | 683 | 24.0% | | | 260 | 9.1% | | | 169 | 5.9% | | |
| **N11. Either caregiver has/had an alcohol or drug problem during the last 12 months** | | | | | 0.046 | 0.001 | | | 0.057 | 0.001 | | | 0.049 | 0.001 |
| No | 6,329 | 76.2% | 1,164 | 18.4% | | | 375 | 5.9% | | | 230 | 3.6% | | |
| Yes | 1,978 | 23.8% | 448 | 22.6% | | | 183 | 9.3% | | | 117 | 5.9% | | |
| **N12. Primary caregiver has/had a mental health problem** | | | | | 0.110 | 0.001 | | | 0.078 | 0.001 | | | 0.064 | 0.001 |
| No | 6,127 | 73.8% | 1,030 | 16.8% | | | 340 | 5.5% | | | 209 | 3.4% | | |
| Yes | 2,180 | 26.2% | 582 | 26.7% | | | 218 | 10.0% | | | 138 | 6.3% | | |
| **N13. Father, stepfather, boyfriend, or male roommate provides unsupervised child care to a child under the age of 3 and is not employed** | | | | | 0.047 | 0.001 | | | 0.043 | 0.001 | | | 0.041 | 0.001 |
| No | 7,571 | 91.1% | 1,425 | 18.8% | | | 483 | 6.4% | | | 297 | 3.9% | | |
| Yes | 736 | 8.9% | 187 | 25.4% | | | 75 | 10.2% | | | 50 | 6.8% | | |

**REVISED SDM® Family Risk Assessment of Abuse/Neglect**
**Abuse Index Item Analysis**

| Item | Sample Distribution | | Assigned Report for Abuse Any Type | | | | Abuse Family Investigation | | | | Abuse Determination | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | N | % | N | % | Corr. | P value | N | % | Corr. | P value | N | % | Corr. | P value |
| **Total Sample** | **8,307** | **100.0%** | **992** | **11.9%** | | | **461** | **5.5%** | | | **185** | **2.2%** | | |
| **A1. Current report is for abuse** | | | | | 0.073 | 0.001 | | | 0.040 | 0.001 | | | 0.028 | 0.006 |
| No | 4,750 | 57.2% | 470 | 9.9% | | | 226 | 4.8% | | | 89 | 1.9% | | |
| Yes, allegation of abuse, any type | 3,557 | 42.8% | 522 | 14.7% | | | 235 | 6.6% | | | 96 | 2.7% | | |
| **A2. Current report results in determination of physical abuse** | | | | | 0.024 | 0.013 | | | 0.034 | 0.001 | | | 0.042 | 0.001 |
| No | 7,964 | 95.9% | 938 | 11.8% | | | 429 | 5.4% | | | 167 | 2.1% | | |
| Yes | 343 | 4.1% | 54 | 15.7% | | | 32 | 9.3% | | | 18 | 5.2% | | |
| **A3. Number of prior assigned reports of abuse** | | | | | 0.124 | 0.001 | | | 0.121 | 0.001 | | | 0.078 | 0.001 |
| None | 6,688 | 80.5% | 666 | 10.0% | | | 280 | 4.2% | | | 111 | 1.7% | | |
| One or more | 1,619 | 19.5% | 326 | 20.1% | | | 181 | 11.2% | | | 74 | 4.6% | | |
| **A4. Prior investigation resulted in case opening** | | | | | 0.053 | 0.001 | | | 0.760 | 0.001 | | | 0.066 | 0.001 |
| No | 7,178 | 86.4% | 808 | 11.3% | | | 349 | 4.9% | | | 132 | 1.8% | | |
| Yes | 1,129 | 13.6% | 184 | 16.3% | | | 112 | 9.9% | | | 53 | 4.7% | | |
| **A5. Number of children in the home** | | | | | 0.049 | 0.001 | | | 0.051 | 0.001 | | | 0.054 | 0.001 |
| One to three | 6,942 | 83.6% | 780 | 11.2% | | | 349 | 5.0% | | | 130 | 1.9% | | |
| Four or more | 1,365 | 16.4% | 212 | 15.5% | | | 112 | 8.2% | | | 55 | 4.0% | | |
| **A6. Either caregiver was abused as a child** | | | | | 0.081 | 0.001 | | | 0.091 | 0.001 | | | 0.047 | 0.001 |
| No | 6,750 | 81.3% | 721 | 10.7% | | | 307 | 4.5% | | | 128 | 1.9% | | |
| Yes | 1,557 | 18.7% | 271 | 17.4% | | | 154 | 9.9% | | | 57 | 3.7% | | |
| **A7. Primary caregiver lacks parenting skills** | | | | | 0.062 | 0.001 | | | 0.059 | 0.001 | | | 0.047 | 0.001 |
| No | 6,129 | 73.8% | 659 | 10.8% | | | 291 | 4.7% | | | 111 | 1.8% | | |
| Yes | 2,178 | 26.2% | 333 | 15.3% | | | 170 | 7.8% | | | 74 | 3.4% | | |
| **A8. Either caregiver employs harmful and/or developmentally inappropriate discipline** | | | | | 0.065 | 0.001 | | | 0.051 | 0.001 | | | 0.040 | 0.001 |
| No | 7,548 | 90.9% | 851 | 11.3% | | | 391 | 5.2% | | | 154 | 2.0% | | |
| Yes | 759 | 9.1% | 141 | 18.6% | | | 70 | 9.2% | | | 31 | 4.1% | | |

**REVISED SDM® Family Risk Assessment of Abuse/Neglect**
**Abuse Index Item Analysis**

| Item | Sample Distribution | | 18-Month Abuse Outcomes | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Assigned Report for Abuse Any Type | | | | Abuse Family Investigation | | | | Abuse Determination | | | |
| | N | % | N | % | Corr. | P value | N | % | Corr. | P value | N | % | Corr. | P value |
| **Total Sample** | **8,307** | **100.0%** | **992** | **11.9%** | | | **461** | **5.5%** | | | **185** | **2.2%** | | |
| **A9. Either caregiver has a history of domestic violence** | | | | | 0.076 | 0.001 | | | 0.078 | 0.001 | | | 0.048 | 0.001 |
| No | 5,477 | 65.9% | 557 | 10.2% | | | 234 | 4.3% | | | 94 | 1.7% | | |
| Yes | 2,830 | 34.1% | 435 | 15.4% | | | 227 | 8.0% | | | 91 | 3.2% | | |
| **A10. Either caregiver's parenting style is over-controlling** | | | | | 0.060 | 0.001 | | | 0.060 | 0.001 | | | 0.042 | 0.001 |
| No | 7,877 | 94.8% | 905 | 11.5% | | | 412 | 5.2% | | | 164 | 2.1% | | |
| Yes | 430 | 5.2% | 87 | 20.2% | | | 49 | 11.4% | | | 21 | 4.9% | | |
| **A11. Child in the home has a developmental disability/emotional impairment** | | | | | 0.078 | 0.001 | | | 0.056 | 0.001 | | | 0.044 | 0.001 |
| No | 6,478 | 78.0% | 686 | 10.6% | | | 315 | 4.9% | | | 122 | 1.9% | | |
| Yes | 1,829 | 22.0% | 306 | 16.7% | | | 146 | 8.0% | | | 63 | 3.4% | | |
| **A12. Primary caregiver has/had a mental health problem** | | | | | 0.056 | 0.001 | | | 0.067 | 0.001 | | | 0.055 | 0.001 |
| No | 6,143 | 73.9% | 667 | 10.9% | | | 285 | 4.6% | | | 107 | 1.7% | | |
| Yes | 2,164 | 26.1% | 325 | 15.0% | | | 176 | 8.1% | | | 78 | 3.6% | | |
| **A13. Alleged offender is an unmarried partner of the primary caregiver** | | | | | 0.035 | 0.001 | | | 0.037 | 0.001 | | | 0.022 | 0.025 |
| No | 6,950 | 83.7% | 795 | 11.4% | | | 360 | 5.2% | | | 145 | 2.1% | | |
| Yes | 1,357 | 16.3% | 197 | 14.5% | | | 101 | 7.4% | | | 40 | 2.9% | | |

**Appendix C**


**Revised Risk Assessment Classification Findings for
Construction and Validation Samples**

The sample population of 16,749 families with a completed risk assessment who were assessed or investigated during 2013 was selected randomly into two groups: a construction sample of 8,307 families and a validation sample of 8,442 families. The use of two samples allows a scale to be developed on one population (the construction sample) and tested on another (the validation sample). Families were stratified by ethnicity, based on the primary ethnicity of the youngest child victim on the index investigation, and then randomly selected into either a construction sample or a validation sample (Table C1).

| Table C1 |||||||
|---|---|---|---|---|---|---|
| **Assessments and Investigations by Youngest Child Victim's Race/Ethnicity** <br> **Construction Sample Versus Validation Sample** |||||||
| **Family Race/Ethnicity** | **All Families** | | **Construction Sample** | | **Validation Sample** | |
| | **N** | **%** | **N** | **%** | **N** | **%** |
| White/Caucasian | 9,324 | 55.7% | 4,590 | 55.3% | 4,734 | 56.1% |
| Black/African American | 3,413 | 20.4% | 1,707 | 20.5% | 1,706 | 20.2% |
| American Indian/Alaska Native | 1,470 | 8.8% | 727 | 8.8% | 743 | 8.8% |
| Hispanic/Latino | 1,736 | 10.4% | 882 | 10.6% | 854 | 10.1% |
| Asian/Pacific Islander | 452 | 2.7% | 225 | 2.7% | 227 | 2.7% |
| Other/Unknown | 354 | 2.1% | 176 | 2.1% | 178 | 2.1% |
| **Total** | **16,749** | **100.0%** | **8,307** | **100.0%** | **8,442** | **100.0%** |

Classification results will be the most robust for the sample from which the assessment was constructed. Validating the scale on a separate population provides a reasonable approximation of how a risk assessment will perform when actually implemented. The ability of a risk assessment to classify families by maltreatment outcomes is expected to decrease somewhat when the risk assessment is applied to samples other than the construction sample. The amount of classification power lost from construction to validation sample (i.e., shrinkage) is normal and expected (Silver et al., 2000; Altman & Royston, 2000).

Table C2 compares findings by the overall risk classification level obtained for families in the construction versus the validation sample. For families in the construction sample, the risk assessment classified families such that an increase in risk of one level from low to moderate or moderate to high corresponded to roughly a 50% increase in the proportion that experienced subsequent CPS involvement across all maltreatment outcomes observed.

Findings were similar when the proposed risk assessment was applied to the validation sample. For families in the validation sample, an increase in the risk level corresponded to at least a 33% increase in the Outcomes for all three outcomes. The distribution of the families classified by the proposed risk assessment was also very similar in the validation and construction samples (Table C2).

<table>
<tr><td colspan="6"><strong>Table C2</strong><br><br><strong>Revised Risk Classification by Subsequent Maltreatment Outcomes for Sample Groups: Construction and Validation Samples</strong></td></tr>
<tr><td rowspan="2"><strong>Overall Risk Level</strong></td><td colspan="2"><strong>Sample Distribution</strong></td><td colspan="3"><strong>Outcomes</strong></td></tr>
<tr><td><strong>N</strong></td><td><strong>%</strong></td><td><strong>Assigned Report Any Type Within 18 Months</strong></td><td><strong>New Investigation Within 18 Months</strong></td><td><strong>New Determination Within 18 Months</strong></td></tr>
<tr><td colspan="6"><strong>Construction Sample</strong></td></tr>
<tr><td>Low</td><td>3,057</td><td>36.8%</td><td>17.0%</td><td>4.5%</td><td>2.4%</td></tr>
<tr><td>Moderate</td><td>3,952</td><td>47.6%</td><td>27.8%</td><td>10.6%</td><td>5.5%</td></tr>
<tr><td>High</td><td>1,298</td><td>15.6%</td><td>40.2%</td><td>21.7%</td><td>13.5%</td></tr>
<tr><td><strong>Total</strong></td><td><strong>8,307</strong></td><td><strong>100.0%</strong></td><td><strong>25.8%</strong></td><td><strong>10.1%</strong></td><td><strong>5.6%</strong></td></tr>
<tr><td colspan="6"><strong>Validation Sample</strong></td></tr>
<tr><td>Low</td><td>3,200</td><td>37.9%</td><td>18.1%</td><td>5.4%</td><td>2.6%</td></tr>
<tr><td>Moderate</td><td>3,905</td><td>46.3%</td><td>29.0%</td><td>10.7%</td><td>6.3%</td></tr>
<tr><td>High</td><td>1,337</td><td>15.8%</td><td>39.2%</td><td>18.7%</td><td>11.3%</td></tr>
<tr><td><strong>Total</strong></td><td><strong>8,442</strong></td><td><strong>100.0%</strong></td><td><strong>26.5%</strong></td><td><strong>10.0%</strong></td><td><strong>5.7%</strong></td></tr>
</table>

## Table C3

### Revised Risk Classification by Maltreatment Outcomes: Validation Sample

| Overall Risk Level | Sample Distribution | | Outcomes During the 18-Month Follow-Up Period | | |
|---|---|---|---|---|---|
| | N | % | Assigned Report Any Type | Family Investigation | Maltreatment Determination |
| **Total Sample** | **8,442** | **100%** | **26.5%** | **10.0%** | **5.7%** |
| **White/Caucasian** | | | | | |
| Low | 1,813 | 38.3% | 17.3% | 5.1% | 2.1% |
| Moderate | 2,197 | 46.4% | 28.8% | 9.8% | 5.5% |
| High | 724 | 15.3% | 40.5% | 18.4% | 10.6% |
| **Subtotal** | **4,734** | **100.0%** | **26.2%** | **9.3%** | **5.0%** |
| **Black/African American** | | | | | |
| Low | 640 | 37.5% | 20.3% | 6.4% | 3.4% |
| Moderate | 802 | 47.0% | 29.1% | 11.3% | 7.4% |
| High | 264 | 15.5% | 33.7% | 20.1% | 14.0% |
| **Subtotal** | **1,706** | **100.0%** | **26.5%** | **10.8%** | **6.9%** |
| **Hispanic/Latino** | | | | | |
| Low | 333 | 39.0% | 14.1% | 5.1% | 2.4% |
| Moderate | 382 | 44.7% | 25.1% | 10.5% | 6.5% |
| High | 139 | 16.3% | 35.3% | 16.5% | 7.2% |
| **Subtotal** | **854** | **100.0%** | **22.5%** | **9.4%** | **5.0%** |
| **American Indian/Alaska Native** | | | | | |
| Low | 207 | 27.9% | 31.9% | 9.2% | 5.8% |
| Moderate | 358 | 48.2% | 38.5% | 16.5% | 10.1% |
| High | 178 | 24.0% | 48.9% | 20.8% | 14.6% |
| **Subtotal** | **743** | **100.0%** | **39.2%** | **15.5%** | **10.0%** |

**Appendix D**


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